

JAPAN INTERNATIONAL COOPERATION AGENCY

THE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
THE GOVERNMENT OF THE PHILIPPINES

THE STUDY ON FLOOD AND MUDFLOW CONTROL
FOR SACOBIA - BAMBAN / ABACAN RIVER
DRAINING FROM MT. PINATUBO

DATABOOK

JICA LIBRARY



J 1129086 131

May 1996

NIPPON KOEI Co., Ltd., Tokyo Japan
in association with
CTI ENGINEERING Co., Ltd., Tokyo Japan

S S S
J R
96-057

JAPAN INTERNATIONAL COOPERATION AGENCY

**THE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
THE GOVERNMENT OF THE PHILIPPINES**

**THE STUDY ON FLOOD AND MUDFLOW CONTROL
FOR SACOBIA - BAMBAN / ABACAN RIVER
DRAINING FROM MT. PINATUBO**

DATABOOK

May 1996

**NIPPON KOEI Co., Ltd., Tokyo Japan
in association with
CTI ENGINEERING Co., Ltd., Tokyo Japan**

LIST OF REPORT

EXECUTIVE SUMMARY

MAIN REPORT

APPENDIX I MASTER PLAN STUDY

- A. Socio-economy
- B. Flood/Mudflow Damages
- C. Geomorphology
- D. Meteo-hydrology
- E. Land Use
- F. Sediment Balance
- G. Lahar Analysis
- H. Flood Control/Sabo Structures
- J. Road Network Development
- K. Agricultural Development
- L. Lahar Material Survey
- M. Resettlement/Evacuation
- N. Flood Warning System
- P. Initial Environmental Examination
- Q. Remote Sensing Analysis
- R. GIS Data Analysis

APPENDIX II FEASIBILITY STUDY

- A. Flood/Mudflow Control Works
- B. Road and Bridges
- C. Construction Plan / Cost Estimate
- D. Environmental Impact Assessment
- E. Project Evaluation

DATABOOK (*)

- DB.1 Socio-economic Data
- DB.2 Hydrological Data
- DB.3 Geotechnical Data
- DB.4 Sediment Data
- DB.5 Extent of Damage
- DB.6 GIS Data Dictionary

OPERATION AND MAINTENANCE MANUAL (*)

- OM.1 Hydrological Gauging Equipment
- OM.2 GIS Training

Note : Marked (*) shows the limited number of copies.

Remarks : The cost estimate in this Study was based on the November 1995 price level, and expressed in Philippine Pesos equivalent according to the exchange rate Philippine Peso 25.0 = Japanese Yen 100.0 (= US dollars 1.0) prevailing at that time.



1129086 [3]

DATABOOK
SOCIO - ECONOMY
(DB.1)



DATABOOK (DB.1)

SOCIO-ECONOMY

TABLE OF CONTENTS

	Page
PART I LOCATION MAP	
Contour Map - Abacan, Sacobia-Bamban Rivers.....	1-1
Drainage Area - Abacan, Sacobia-Bamban Rivers.....	1-2
Map of Municipalities & City covered by the Project Study.....	1-3
City Map of Angeles, Pampanga.....	1-4
Municipal Map of Arayat, Pampanga.....	1-5
Municipal Map of Mabalacat, Pampanga.....	1-6
Municipal Map of Magalang, Pampanga.....	1-7
Municipal Map of Mexico, Pampanga.....	1-8
Municipal Map of Sta. Ana, Pampanga.....	1-9
Municipal Map of Bamban, Tarlac.....	1-10
Municipal Map of Capas, Tarlac.....	1-11
Municipal Map of Concepcion, Tarlac.....	1-12
List of Barangays Affected/Threatened by Pinatubo Volcanic and Flood Hazards..	1-13
Barangays Classified by Threatened, Affected & Unaffected - October 1994 - Angeles City.....	1-20
Barangays Classified by Threatened, Affected & Unaffected - October 1994 - Arayat, Pampanga.....	1-21
Barangays Classified by Threatened, Affected & Unaffected - October 1994 - Mabalacat, Pampanga.....	1-22
Barangays Classified by Threatened, Affected & Unaffected - October 1994 - Magalang, Pampanga.....	1-23
Barangays Classified by Threatened, Affected & Unaffected - October 1994 - Mexico, Pampanga.....	1-24
Barangays Classified by Threatened, Affected & Unaffected - October 1994 - Sta. Ana, Pampanga.....	1-25
Barangays Classified by Threatened, Affected & Unaffected - October 1994 - Bamban, Tarlac.....	1-26
Barangays Classified by Threatened, Affected & Unaffected - October 1994 - Capas, Tarlac.....	1-27
Barangays Classified by Threatened, Affected & Unaffected - October 1994 - Concepcion, Tarlac.....	1-28

PART II POPULATION DATA

Total Population, Annual Growth Rate, Number of Households and Average	
Household Size 1980, 1990, 1994	II-1
Population 1980, 1990, 1994 - Affected/Unaffected Area - Angeles City	II-10
Population 1980, 1990, 1994 - Affected/Unaffected Area - Arayat, Pampanga.....	II-11
Population 1980, 1990, 1994 - Affected/Unaffected Area - Mabalacat, Pampanga.....	II-12
Population 1980, 1990, 1994 - Affected/Unaffected Area - Magalang, Pampanga.....	II-13
Population 1980, 1990, 1994 - Affected/Unaffected Area - Mexico, Pampanga.....	II-14
Population 1980, 1990, 1994 - Affected/Unaffected Area - Sta. Ana, Pampanga.....	II-15
Population 1980, 1990, 1994 - Affected/Unaffected Area - Bamban, Tarlac.....	II-16
Population 1980, 1990, 1994 - Affected/Unaffected Area - Capas, Tarlac.....	II-17
Population 1980, 1990, 1994 - Affected/Unaffected Area - Concepcion, Tarlac.....	II-18
Population 1980, 1990, 1994 - Threatened Barangay - Angeles City	II-19
Population 1980, 1990, 1994 - Threatened Barangay - Arayat, Pampanga.....	II-20
Population 1980, 1990, 1994 - Threatened Barangay - Mabalacat, Pampanga.....	II-21
Population 1980, 1990, 1994 - Threatened Barangay - Magalang, Pampanga.....	II-22
Population 1980, 1990, 1994 - Threatened Barangay - Mexico, Pampanga.....	II-23
Population 1980, 1990, 1994 - Threatened Barangay - Sta. Ana, Pampanga.....	II-24
Population 1980, 1990, 1994 - Threatened Barangay - Bamban, Tarlac.....	II-25
Population 1980, 1990, 1994 - Threatened Barangay - Capas, Tarlac.....	II-26
Population 1980, 1990, 1994 - Threatened Barangay - Concepcion, Tarlac.....	II-27
Population as of August 1994.....	II-28
Number of Aeta Families in Tarlac and Pampanga as of August 1994.....	II-33
Population by Barangay, 1994 - Angeles City	II-35
Population by Barangay, 1994 - Arayat, Pampanga.....	II-36
Population by Barangay, 1994 - Mabalacat, Pampanga.....	II-37
Population by Barangay, 1994 - Magalang, Pampanga.....	II-38
Population by Barangay, 1994 - Mexico, Pampanga.....	II-39
Population by Barangay, 1994 - Sta. Ana, Pampanga.....	II-40
Population by Barangay, 1994 - Bamban, Tarlac.....	II-41
Population by Barangay, 1994 - Capas, Tarlac	II-42
Population by Barangay, 1994 - Concepcion, Tarlac.....	II-43

PART III HOUSEHOLD DATA

Number of Household by Size.....	III-1
Household Migration Profile	III-10
Number of Households by Residence in May 1990.....	III-19

	Page
Household Population by Broad Age Group.....	III-28
Household Population by School Age Group - Angeles, Pampanga.....	III-35
Household Population by School Age Group - Arayat, Pampanga.....	III-36
Household Population by School Age Group - Mabalacat, Pampanga.....	III-37
Household Population by School Age Group - Magalang, Pampanga.....	III-38
Household Population by School Age Group - Mexico, Pampanga.....	III-39
Household Population by School Age Group - Sta. Ana, Pampanga.....	III-40
Household Population by School Age Group - Bamban, Tarlac.....	III-41
Household Population by School Age Group - Capas, Tarlac.....	III-42
Household Population by School Age Group - Concepcion, Tarlac.....	III-43
Household Population by Employment Status: 1994.....	III-44
Number of Households by Annual Income.....	III-50
Number of Households by Area Classification.....	III-59
Number of Households Affected by Floodflows.....	III-65
 PART IV RESETTLEMENT/EVACUATION	
Status of Housing Program (Lowland) as of September 30, 1994.....	IV-1
Housing Occupancy Status.....	IV-2
Profile of Existing Resettlement Sites in Pampanga and Tarlac Study Area.....	IV-3
Summary of Facilities in Existing Resettlement Sites in Pampanga and Tarlac Study Area.....	IV-5
Projected Utility Requirements of Evacuation Sites.....	IV-7
Projected Utility Requirements of Evacuation Sites - Angeles City.....	IV-8
Projected Utility Requirements of Evacuation Sites - Mabalacat, Pampanga.....	IV-9
Projected Utility Requirements of Evacuation Sites - Mexico, Pampanga.....	IV-10
Projected Utility Requirements of Evacuation Sites - Sta. Ana, Pampanga.....	IV-11
Projected Utility Requirements of Evacuation Sites - Bamban, Tarlac.....	IV-12
Projected Utility Requirements of Evacuation Sites - Capas, Tarlac.....	IV-13
Projected Utility Requirements of Evacuation Sites - Concepcion, Tarlac.....	IV-14
Proposed Rehabilitation and Resettlement Programs for Aetas.....	IV-15
Proposed Rehabilitation and Resettlement Programs/Projects for the Mt. Pinatubo Victims.....	IV-16
Selected Characteristics of Aetas in Resettlement Sites, 1992.....	IV-19
Summary of DSWD Projects in Resettlement and Evacuation Sites within the Study Area.....	IV-21
Accomplishment Report of Implemented DSWD Projects in Resettlement and Evacuation Sites of Central Luzon.....	IV-23

	Page
Resettlement/Evacuation Facilities - Angeles City.....	IV-25
Resettlement/Evacuation Facilities - Arayat, Pampanga.....	IV-26
Resettlement/Evacuation Facilities - Magalang, Pampanga.....	IV-27
Resettlement/Evacuation Facilities - Mexico, Pampanga.....	IV-28
Resettlement/Evacuation Facilities - Sta. Ana, Pampanga.....	IV-29
Resettlement/Evacuation Facilities - Bamban, Tarlac.....	IV-30
Resettlement/Evacuation Facilities - Capas, Tarlac.....	IV-31
Resettlement/Evacuation Facilities - Concepcion, Tarlac.....	IV-32
Total Number of Evacuees and Capacity of Evacuation Sites.....	IV-33
Number of Evacuees, Capacity of Evacuation Centers and Location of Pick-up Points, Angeles City.....	IV-34
Number of Evacuees, Capacity of Evacuation Centers and Location of Pick-up Points, Mabalacat, Pampanga.....	IV-35
Number of Evacuees, Capacity of Evacuation Centers and Location of Pick-up Points, Magalang, Pampanga.....	IV-36
Number of Evacuees, Capacity of Evacuation Centers and Location of Pick-up Points, Mexico, Pampanga.....	IV-37
Number of Evacuees, Capacity of Evacuation Centers and Location of Pick-up Points, Sta. Ana, Pampanga.....	IV-38
Number of Evacuees, Capacity of Evacuation Centers and Location of Pick-up Points, Bamban, Tarlac.....	IV-39
Number of Evacuees, Capacity of Evacuation Centers and Location of Pick-up Points, Capas, Tarlac.....	IV-40
Number of Evacuees, Capacity of Evacuation Centers and Location of Pick-up Points, Concepcion, Tarlac.....	IV-41
Household Evacuated by Municipality of Present Residence and by Municipality of Destination - Angeles City.....	IV-42
Household Evacuated by Municipality of Present Residence and by Municipality of Destination - Arayat, Pampanga.....	IV-43
Household Evacuated by Municipality of Present Residence and by Municipality of Destination - Mabalacat, Pampanga.....	IV-44
Household Evacuated by Municipality of Present Residence and by Municipality of Destination - Magalang, Pampanga.....	IV-45
Household Evacuated by Municipality of Present Residence and by Municipality of Destination - Mexico, Pampanga.....	IV-46
Household Evacuated by Municipality of Present Residence and by Municipality of Destination - Sta. Ana, Pampanga.....	IV-47

	Page
Household Evacuated by Municipality of Present Residence and by Municipality of Destination - Bamban, Tarlac.....	IV-48
Household Evacuated by Municipality of Present Residence and by Municipality of Destination - Capas, Tarlac.....	IV-49
Household Evacuated by Municipality of Present Residence and by Municipality of Destination - Concepcion, Tarlac.....	IV-50
 PART V EMPLOYMENT/LIVELIHOOD	
Employment Rate	V-1
Employed Persons at Least 15 Years Old by Major Occupation.....	V-7
Unemployed Population by Type of Skills	V-16
Employment Rate : 1994 - Angeles City, Pampanga	V-24
Employment Rate : 1994 - Arayat, Pampanga.....	V-25
Employment Rate : 1994 - Mabalacat, Pampanga.....	V-26
Employment Rate : 1994 - Magalang, Pampanga.....	V-27
Employment Rate : 1994 - Mexico, Pampanga.....	V-28
Employment Rate : 1994 - Sta. Ana, Pampanga	V-29
Employment Rate : 1994 - Bamban, Tarlac.....	V-30
Employment Rate : 1994 - Capas, Tarlac	V-31
Employment Rate : 1994 - Concepcion, Tarlac.....	V-32
Types, Number and Beneficiaries of Livelihood Projects - Angeles City.....	V-33
Types, Number and Beneficiaries of Livelihood Projects - Mabalacat, Pampanga .	V-34
Types, Number and Beneficiaries of Livelihood Projects - Magalang, Pampanga..	V-35
Types, Number and Beneficiaries of Livelihood Projects - Mexico, Pampanga	V-36
Types, Number and Beneficiaries of Livelihood Projects - Bamban, Tarlac	V-37
Types, Number and Beneficiaries of Livelihood Projects - Capas, Tarlac.....	V-38
Types, Number and Beneficiaries of Livelihood Projects - Concepcion, Tarlac....	V-39
Location of Registered Establishments with Capitalization of ₱1M and over - Angeles City.....	V-40
Location of Registered Establishments with Capitalization of ₱1M and over - Arayat, Pampanga.....	V-41
Location of Registered Establishments with Capitalization of ₱1M and over - Mabalacat, Pampanga.....	V-42
Location of Registered Establishments with Capitalization of ₱1M and over - Magalang, Pampanga.....	V-43
Location of Registered Establishments with Capitalization of ₱1M and over - Mexico, Pampanga.....	V-44

	Page
Location of Registered Establishments with Capitalization of ₱1M and over - Sta. Ana, Pampanga.....	V-45
Location of Registered Establishments with Capitalization of ₱1M and over - Bamban, Tarlac.....	V-46
Location of Registered Establishments with Capitalization of ₱1M and over - Capas, Tarlac.....	V-47
Location of Registered Establishments with Capitalization of ₱1M and over - Concepcion, Tarlac.....	V-48

PART VI SCHOOL/HEALTH/RELIGIOUS FACILITIES

Location Map, School Facilities - Angeles City.....	VI-1
Location Map, School Facilities - Arayat, Pampanga.....	VI-2
Location Map, School Facilities - Mabalacat, Pampanga.....	VI-3
Location Map, School Facilities - Magalang, Pampanga.....	VI-4
Location Map, School Facilities - Mexico, Pampanga.....	VI-5
Location Map, School Facilities - Sta. Ana, Pampanga.....	VI-6
Location Map, School Facilities - Bamban, Tarlac.....	VI-7
Location Map, School Facilities - Capas, Tarlac.....	VI-8
Location Map, School Facilities - Concepcion, Tarlac.....	VI-9
Location Map, Health Facilities - Angeles City.....	VI-10
Location Map, Health Facilities - Arayat, Pampanga.....	VI-11
Location Map, Health Facilities - Mabalacat, Pampanga.....	VI-12
Location Map, Health Facilities - Magalang, Pampanga.....	VI-13
Location Map, Health Facilities - Mexico, Pampanga.....	VI-14
Location Map, Health Facilities - Sta. Ana, Pampanga.....	VI-15
Location Map, Health Facilities - Bamban, Tarlac.....	VI-16
Location Map, Health Facilities - Capas, Tarlac.....	VI-17
Location Map, Health Facilities - Concepcion, Tarlac.....	VI-18
Location Map, Religious Facilities - Angeles City.....	VI-19
Location Map, Religious Facilities - Arayat, Pampanga.....	VI-20
Location Map, Religious Facilities - Mabalacat, Pampanga.....	VI-21
Location Map, Religious Facilities - Magalang, Pampanga.....	VI-22
Location Map, Religious Facilities - Mexico, Pampanga.....	VI-23
Location Map, Religious Facilities - Sta. Ana, Pampanga.....	VI-24
Location Map, Religious Facilities - Bamban, Tarlac.....	VI-25
Location Map, Religious Facilities - Capas, Tarlac.....	VI-26
Location Map, Religious Facilities - Concepcion, Tarlac.....	VI-27

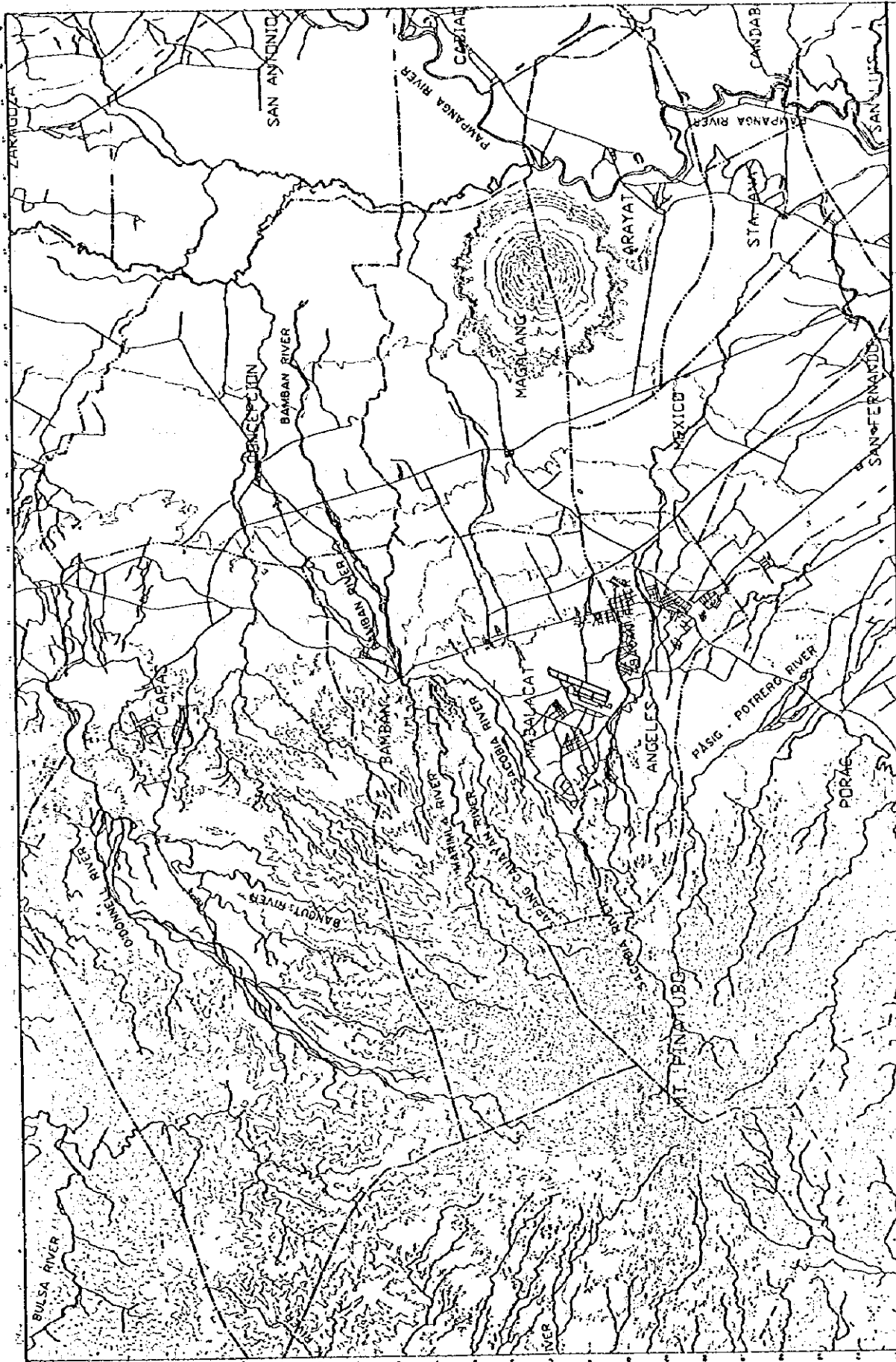
	Page
PART VII DATA ON PROJECT EVALUATION	
VII.1	Summary of Barangay Data Base in Sacobia/Bamban River Basin..... VII-1
VII.2	Summary of Barangay Data Base in Abacan River Basin..... VII-5
VII.3	Number of Buildings Located in Probable Flood Areas in Sacobia/Bamban and Abacan River Basins..... VII-9
VII.4	Summary of Traffic Counting on Magalang-Tarlac Road..... VII-16
VII.5	Traffic Counting at Three Stations at Magalang-Tarlac Road on July 19, 1995..... VII-19
VII.6	Summary of Traffic Data on North Luzon Expressway on July 19, 1995..... VII-20
VII.7	Traffic Data in the Study Area..... VII-22
VII-8	DPWH Traffic Counting Survey in November 1994..... VII-23
VII-9	Analysis of Economic Benefit in Sacobia/Bamban River Basin..... VII-24
VII-10	Analysis of Economic Benefit in Abacan River Basin..... VII-26
VII-11	Data on Shadow Pricing of Land Acquisition Cost..... VII-28
VII-12	Location Map of Priority Schemes for Irrigation Development VII-29
VII-13	Location of Three Stations for Traffic Survey Conducted by JICA Study Team VII-30



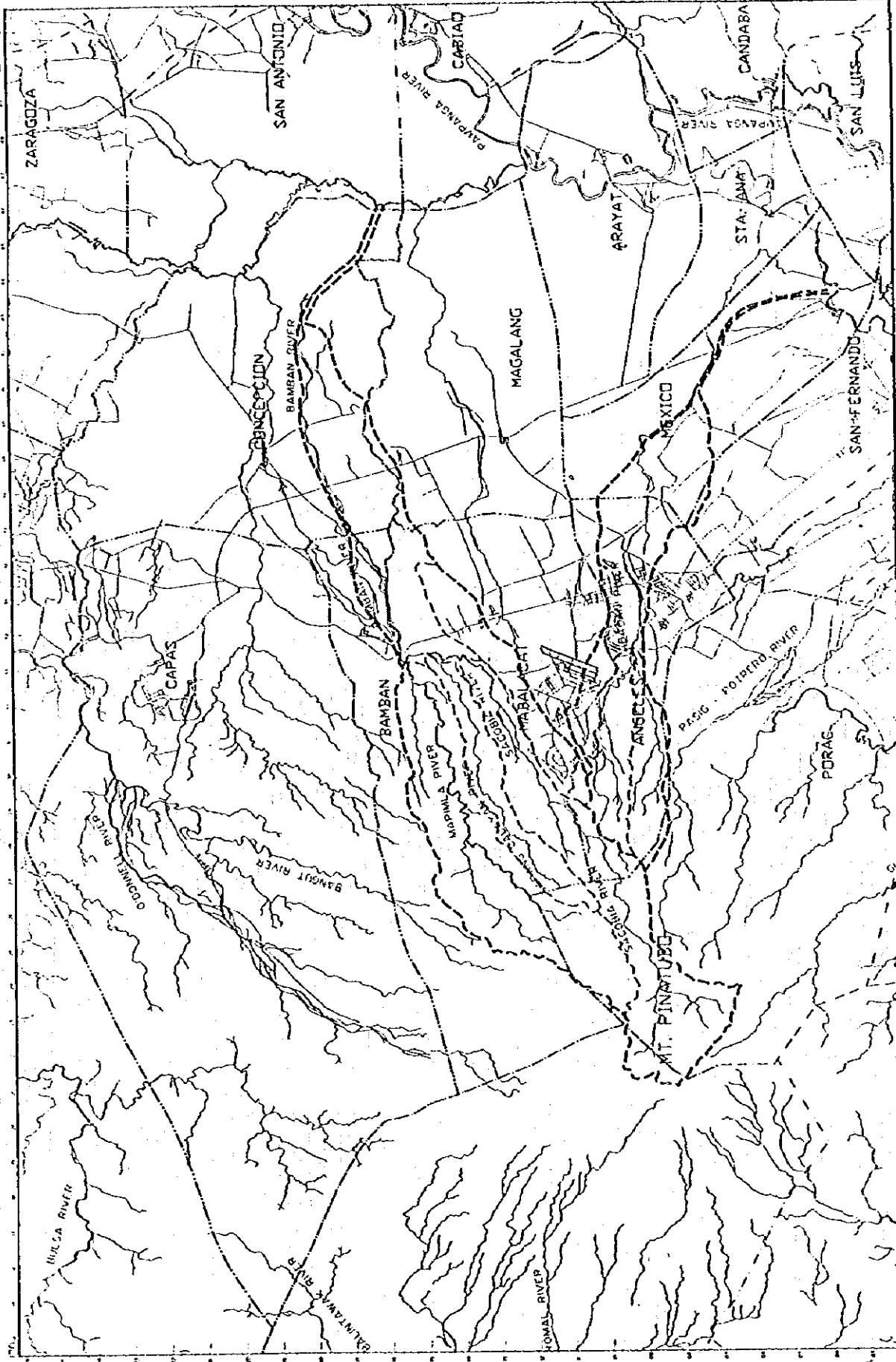
PART I

LOCATION MAP





<p>FIGURE NO</p>	<p>LEGEND</p> <p>..... CONTOUR LINES</p>	<p>0 1 2 3 4 5 KILOMETER</p>	<p>JICA JAPAN INTERNATIONAL COOPERATION AGENCY</p> <p>STUDY ON FLOOD AND MID-LOW CONTROL FOR SACOBIA-ABACAN/BAMBAN RIVERS ORIGINATING FROM MT. PINATUBO</p>
<p>CONTOUR MAP ABACAN, SACOBIA, BAMBAN RIVERS</p>		<p>FIGURE NO</p>	



JICA JAPAN INTERNATIONAL COOPERATION AGENCY
 STUDY ON FLOOD AND MUDFLOW CONTROL FOR
 SACOBIA, BAMBAN/ABACAN RIVERS DRAINING
 FROM MT. PINTUBO

0 1 2 3 4 5
 KILOMETER

LEGEND:
 --- BASIN BOUNDARY
 - - - SUB-BASIN BOUNDARY

FIGURE NO. 1-2
 DRAINAGE AREA
 ABACAN, SACOBIA-BAMBAN RIVERS

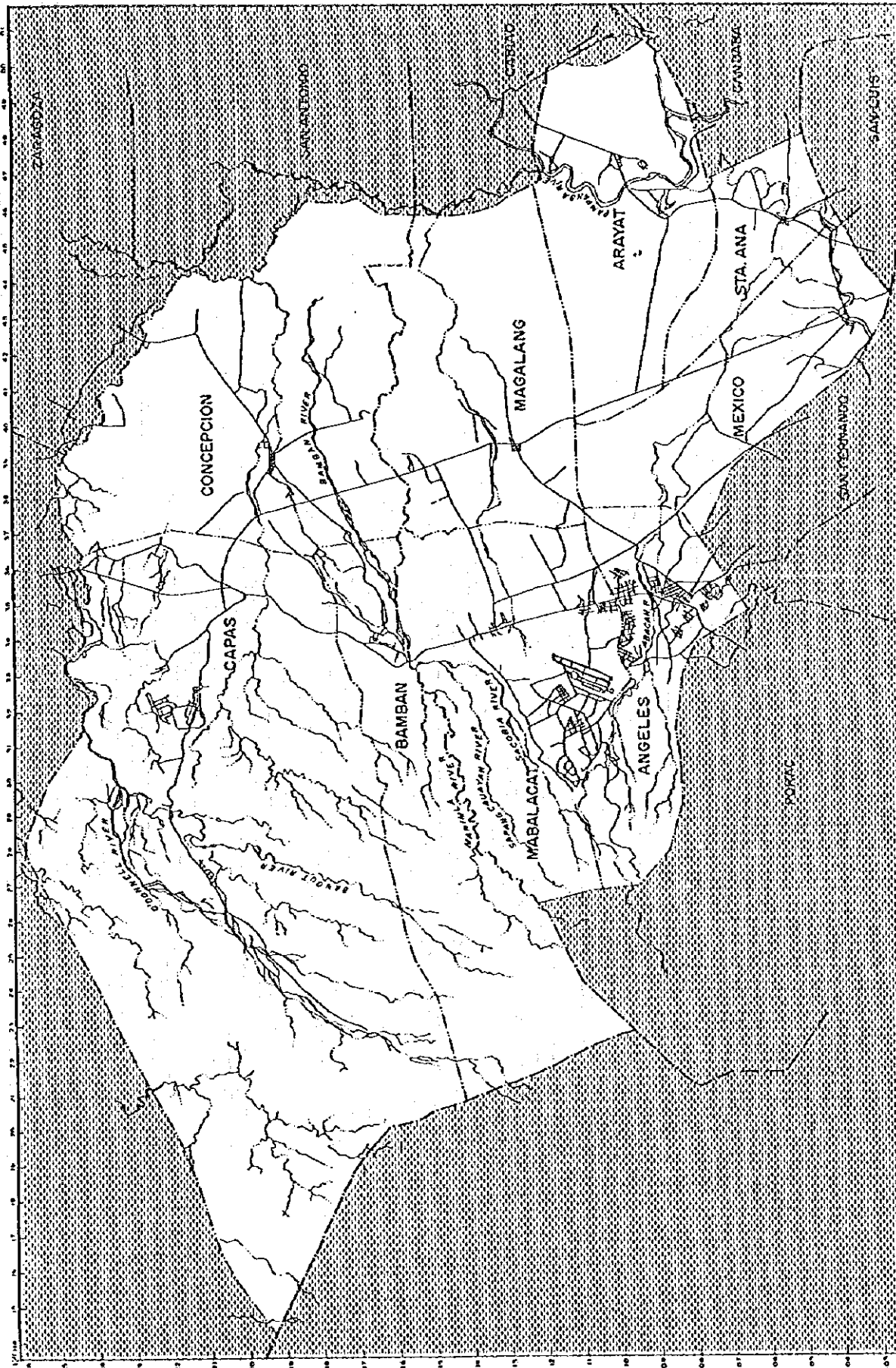


FIGURE NO. _____

MAP OF MUNICIPALITIES & CITY COVERED BY THE PROJECT STUDY

LEGEND:

- PROVICIAL BOUNDARY
- - - MUNICIPAL BOUNDARY
- ROAD
- RIVER

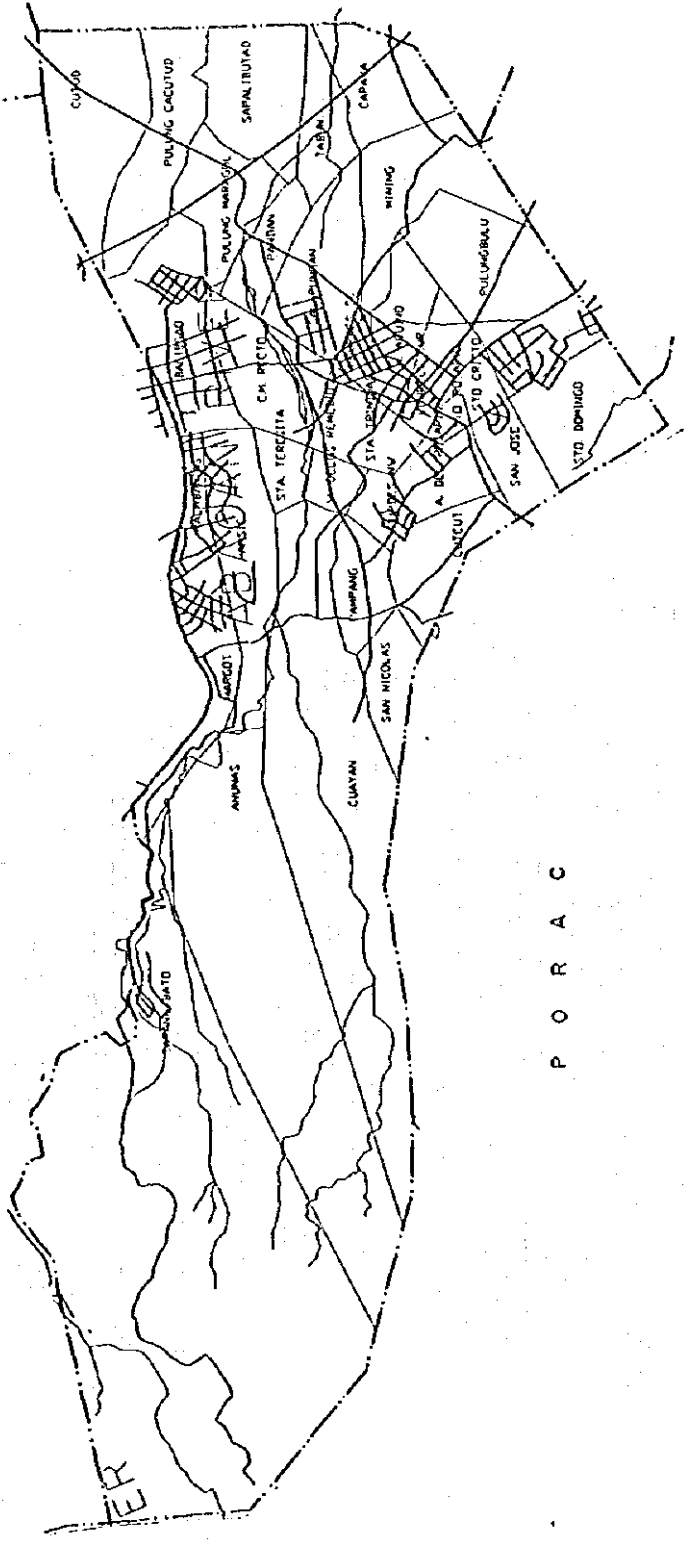
JICA JAPAN INTERNATIONAL COOPERATION AGENCY

STUDY ON FLOOD AND MUDFLOW CONDITIONS FOR SAGAYA, BAMBAN/ARAYAT RIVERS, DRAINING FROM MT. PULUPUD

0 1 2 3 4 5
KILOMETER

▲

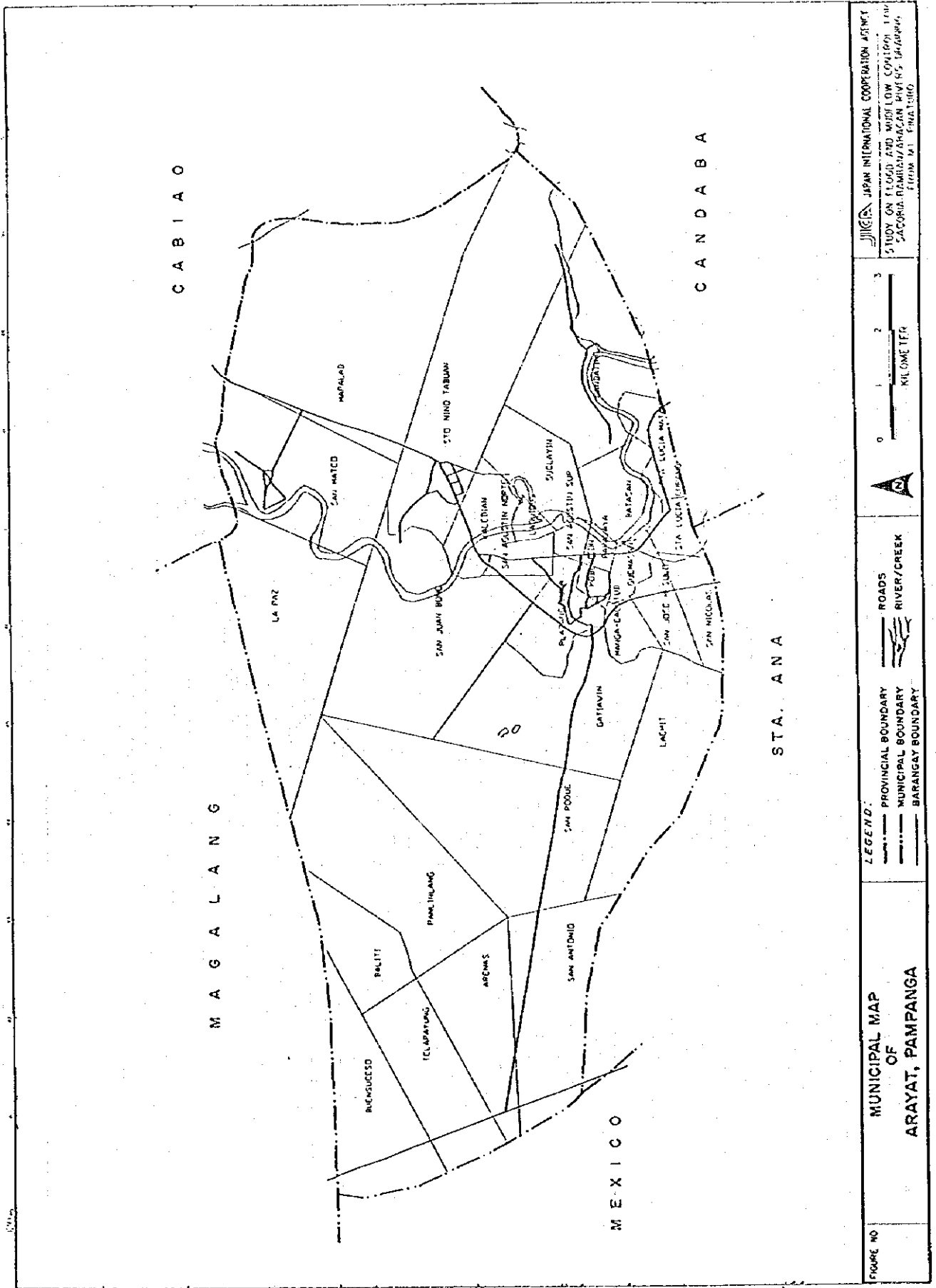
M A B A L A C A T



P O R A C

SAN FERNANDO

FIGURE NO.	CITY MAP OF ANGELES, PAMPANGA	LEGEND: _____ PROVINCIAL BOUNDARY _____ CITY BOUNDARY _____ BARANGAY BOUNDARY _____ ROADS _____ RIVER/CREEK	 0 1 2 3 K I L O M E T E R	 JICA JAPAN INTERNATIONAL COOPERATION AGENCY STUDY ON FLOOD AND MUDFLOW CONTROL FOR SACOBIA BAMBAN/ARACAN RIVERS DRAINAGE FROM MT. PINA 1/1967
1-4				



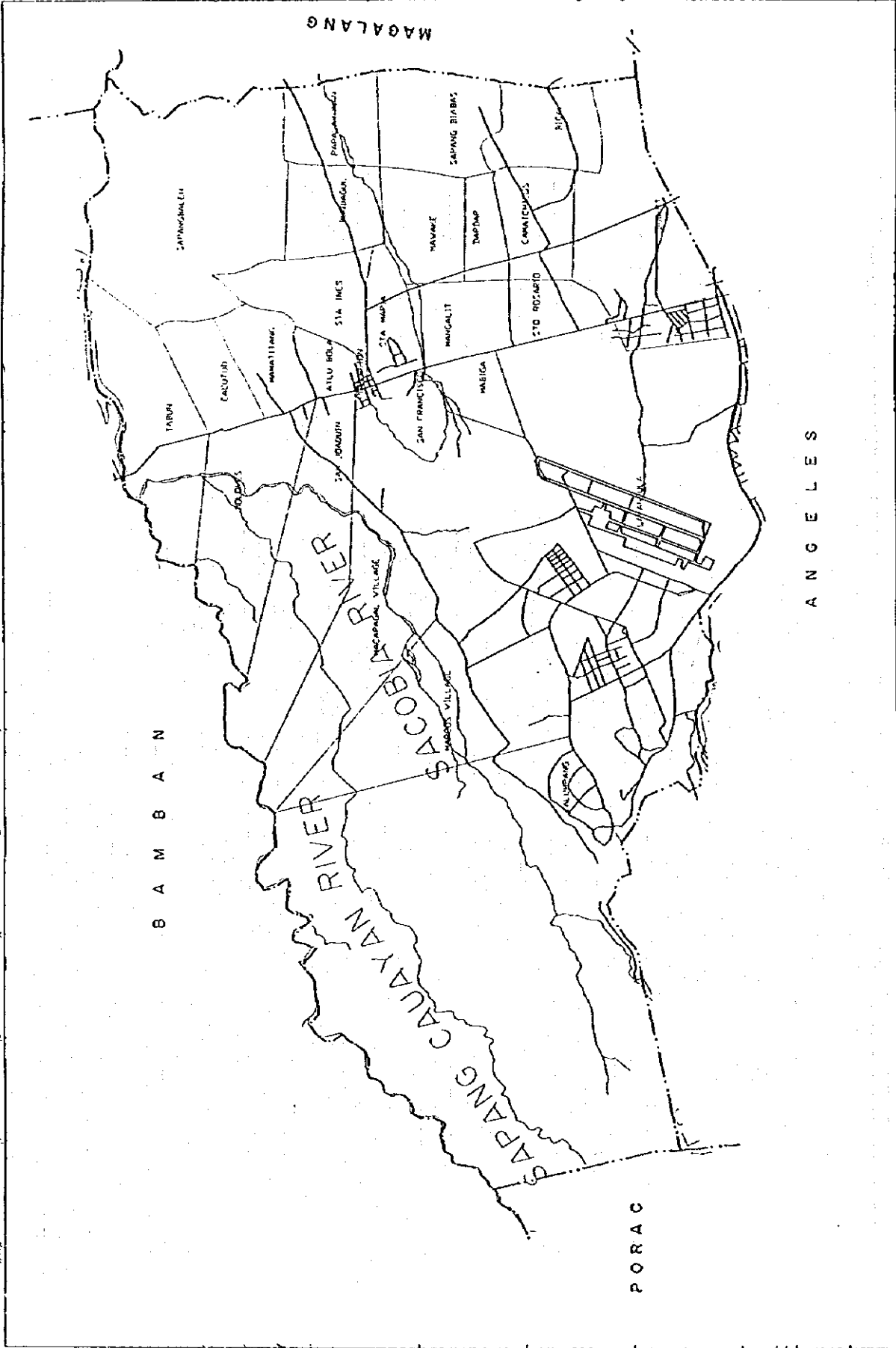


FIGURE NO. _____

MUNICIPAL MAP OF MABALACAT, PAMPANGA

LEGEND:
 - - - - - PROVINCIAL BOUNDARY
 - - - - - MUNICIPAL BOUNDARY
 - - - - - BARANGAY BOUNDARY
 ——— ROADS
 ~~~~~ RIVER/CREEK

**ANGELLES**

0 1 2 3  
 KILOMETER

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY  
 STUDY ON FLOOD AND WIDE LOW CONTROL FOR SACOBIA-BAMBAN/SACOBIA RIVERS (MARRIS) FROM MT. PIRACATUNG



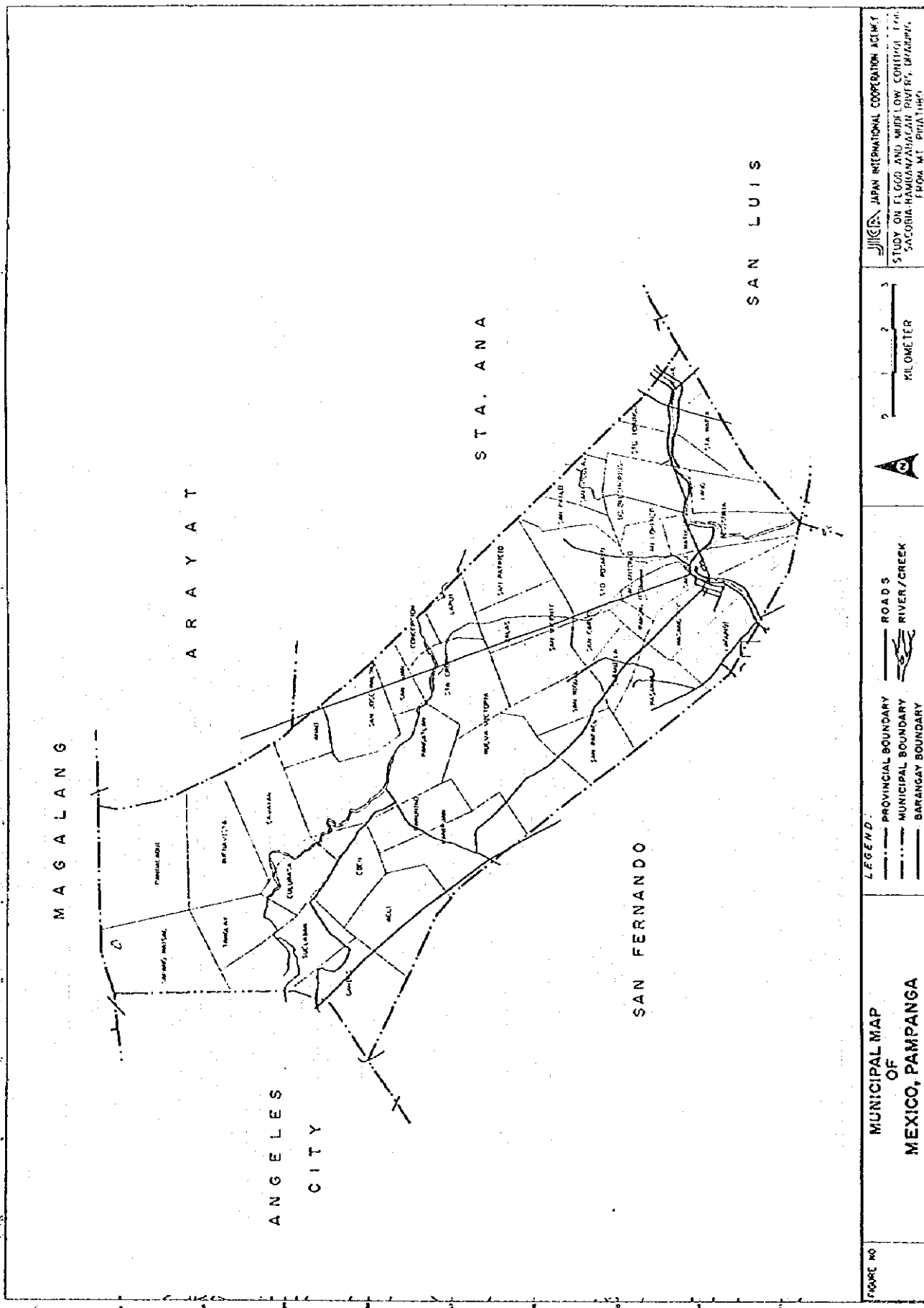


FIGURE NO

MUNICIPAL MAP OF MEXICO, PAMPANGA

LEGEND:

- PROVINCIAL BOUNDARY
- MUNICIPAL BOUNDARY
- BARANGAY BOUNDARY
- ROADS
- RIVER/CREEK

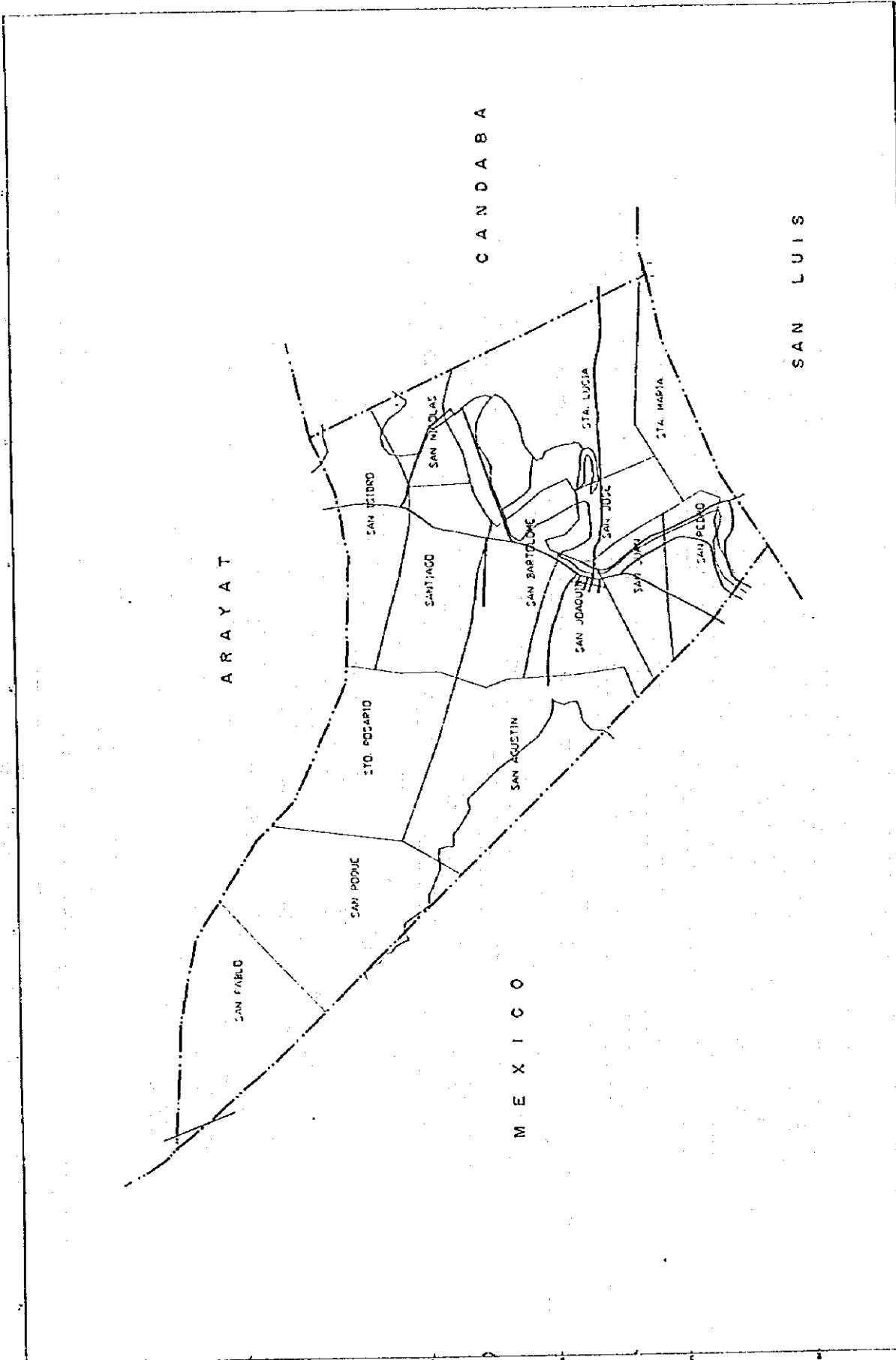


KILOMETER

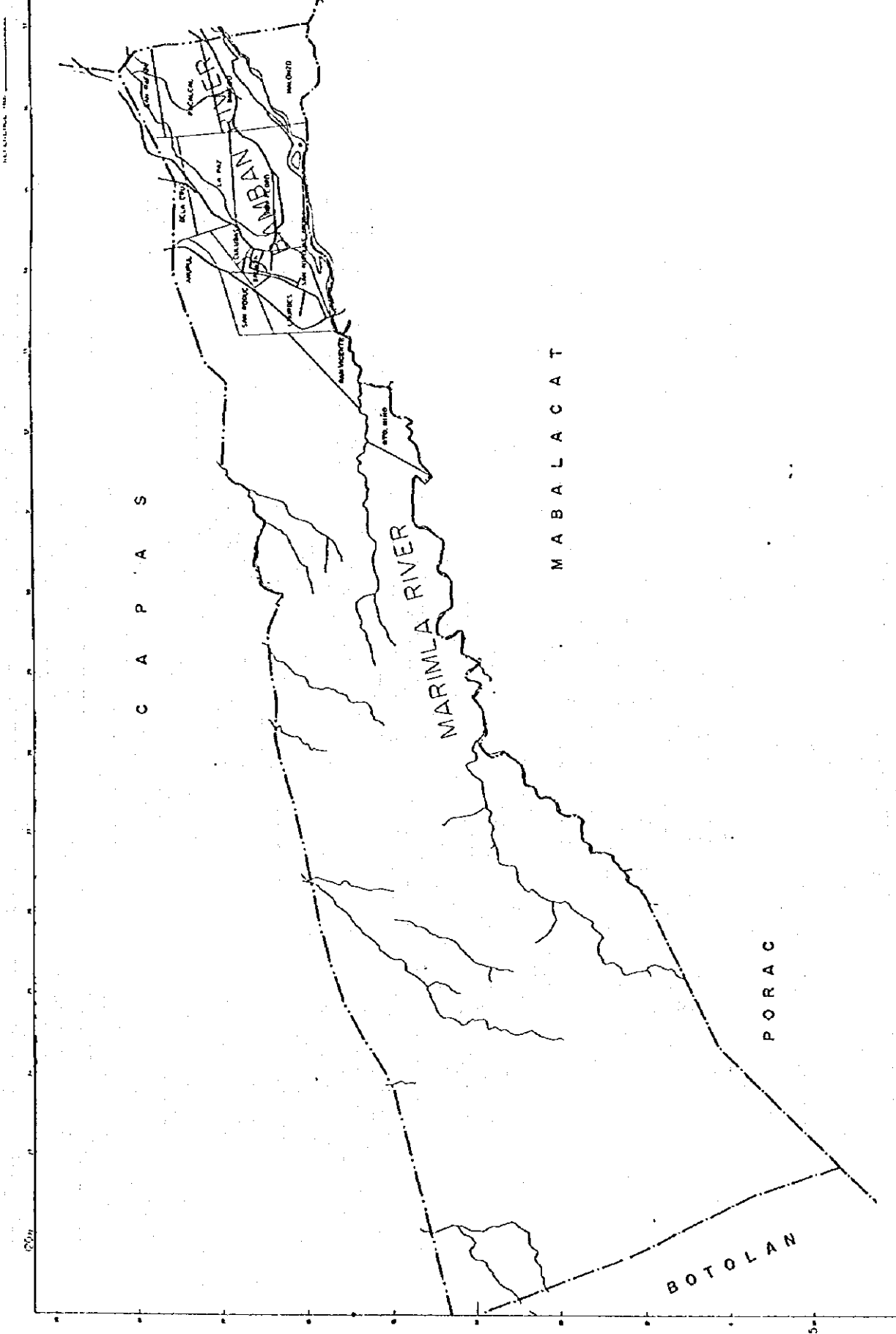
0 1 2 3

JAPAN INTERNATIONAL COOPERATION AGENCY  
STUDY ON FLOOD AND WINDLOW CONTROL FOR  
SACOBIA-HAMON/TAJACAR RIVERS, BRABANG,  
FROM MT. PINDA 1961

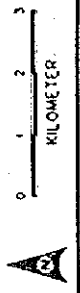




|            |                                     |                                                                                                                                                                                                     |                              |                                                                                                                                                             |
|------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FIGURE NO. | MUNICIPAL MAP OF STA. ANA, PAMPANGA | <p><b>LEGEND:</b></p> <ul style="list-style-type: none"> <li>— PROVICIAL BOUNDARY</li> <li>- - - MUNICIPAL BOUNDARY</li> <li>— BARANGAY BOUNDARY</li> <li>— ROADS</li> <li>— RIVER/CREEK</li> </ul> | <p>0 1 2 3<br/>KILOMETER</p> | <p>JICA JAPAN INTERNATIONAL COOPERATION AGENCY<br/>STUDY ON FLOOD AND WIND LOW CONTROL FOR SACORBA (BAMPAN/ARAYAN RIVERS, DRAINAGE EKOM. NI. PMA 100/7)</p> |
|------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|

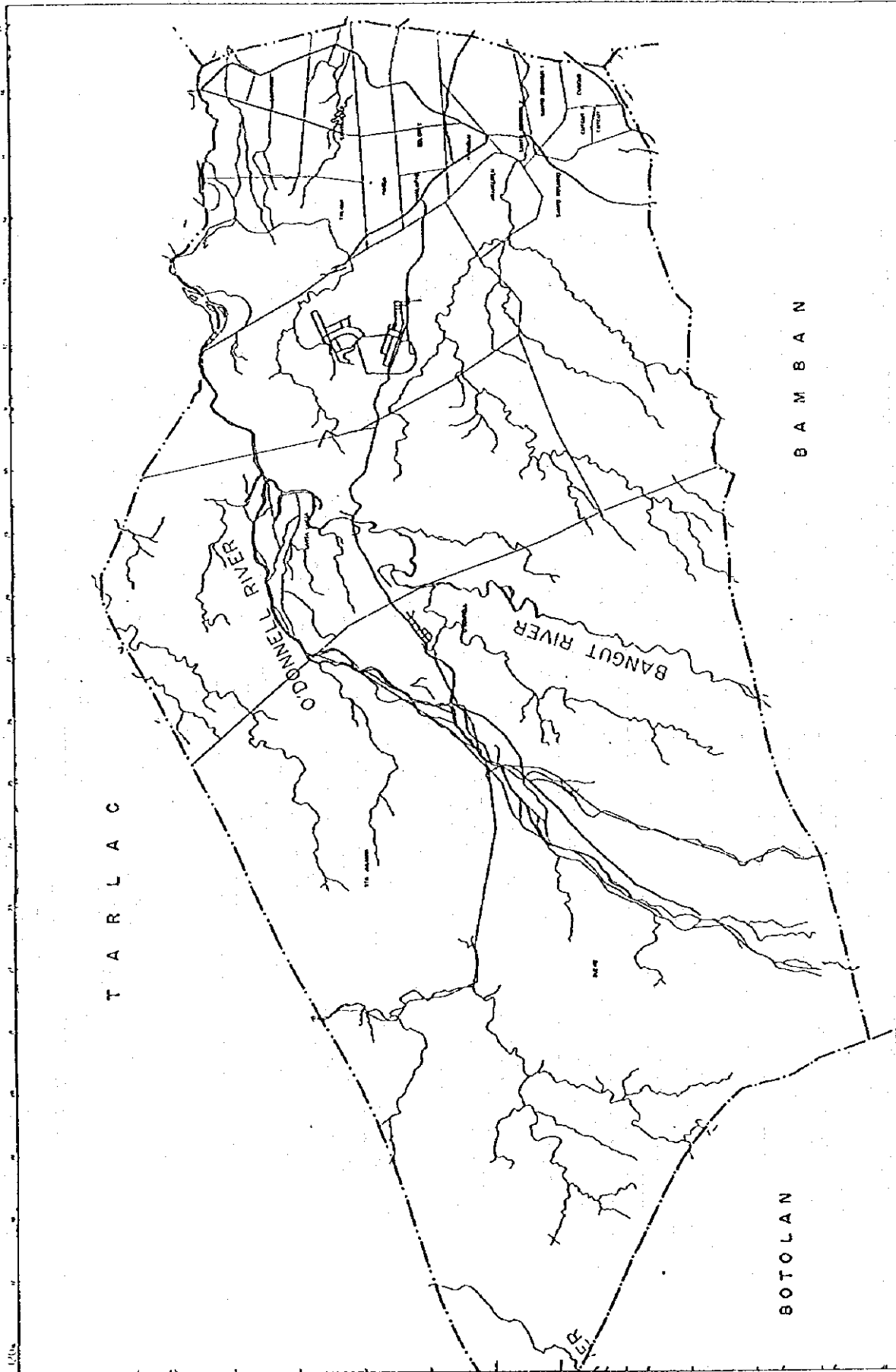


JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 STUDY ON FLOOD AND MUDFLOW CONTROL FOR  
 SACOBIA-BAMBAN/ABACAN RIVERS DRAINING  
 FROM MT. PINATURO



LEGEND:  
 ——— PROVINCIAL BOUNDARY  
 - - - - - MUNICIPAL BOUNDARY  
 ······ BARANGAY BOUNDARY  
 ——— ROAD S  
 ~~~~ RIVER / CREEK

FIGURE NO. I-10
 MUNICIPAL MAP
 OF
 BAMBAN, TARLAC

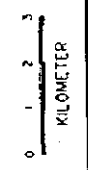


T A R L A C

B A M B A N

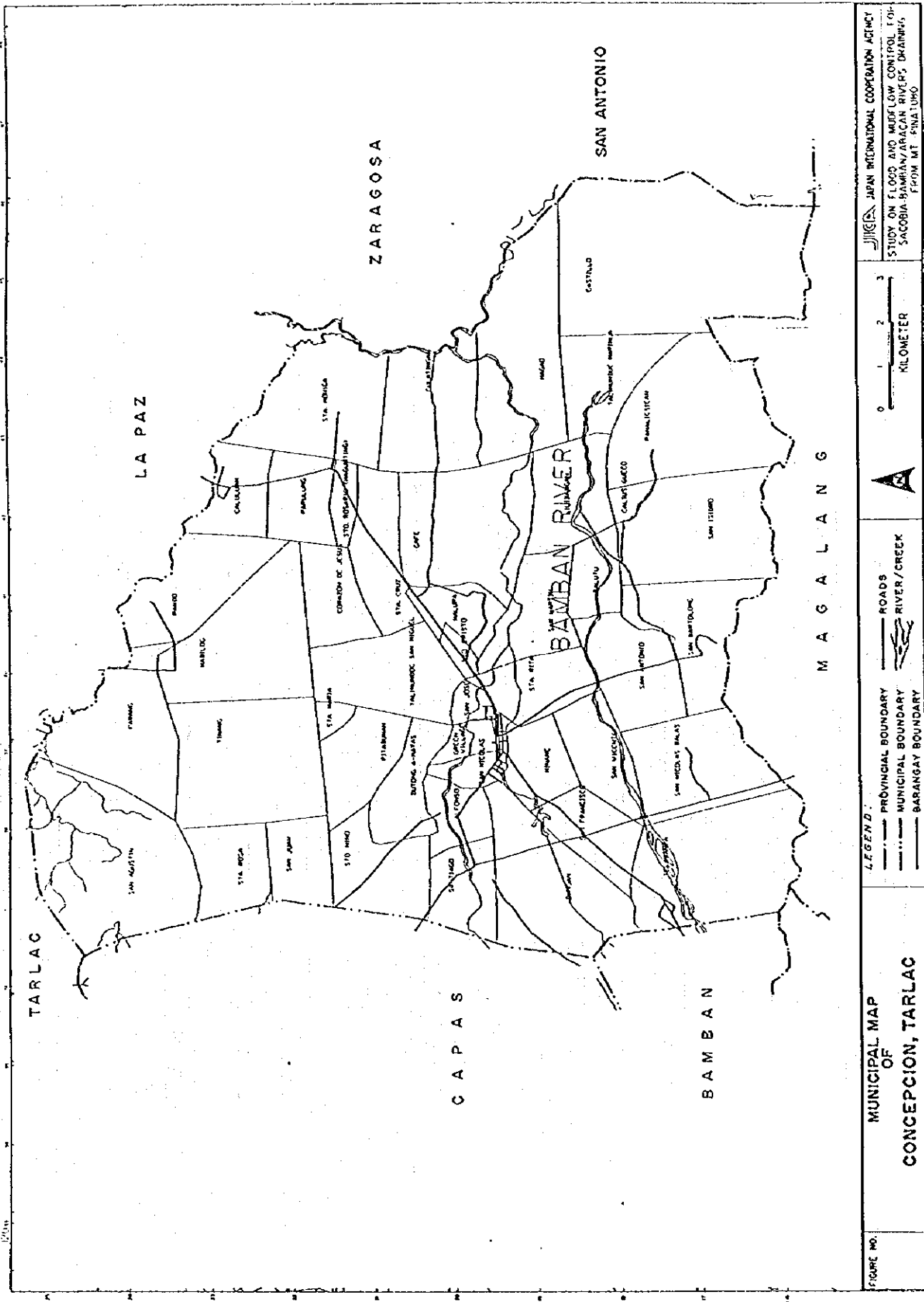
B O T O L A N

JICA JAPAN INTERNATIONAL COOPERATION AGENCY
 STUDY ON FLOOD AND MUDFLOW CONTROL FOR
 SACOBIA DAM/ANABAGAN RIVER'S (MAPPING)
 FROM MT. PIRATUBO



LEGEND:
 - - - - - PROVINCIAL BOUNDARY
 - - - - - MUNICIPAL BOUNDARY
 - - - - - BARANGAY BOUNDARY
 ———— ROADS
 ~~~~~ RIVER/CREEK

FIGURE NO. 1  
 MUNICIPAL MAP  
 OF  
 CAPAS, TARLAC



**List of Barangays Affected/Threatened by Pinatubo Volcanic and Flood Hazards  
Based on May 5, 1994 Pinatubo Volcanic and Flood Hazards Map (1/7)  
(Areas in Hectares)**

| Province/City<br>Municipality/Barangay | 1990<br>Population | 1990<br>Number of<br>Household | Estimated<br>area of<br>barangay<br>based on<br>GIS | Estimated Affected Threatened and Non-Threatened Areas |                                         |                                         |                                         |                                              |              |                                 |                                           |                                                       |              | Total<br>(1)+(2)+(3)+<br>(4) |                                         |                                                                     |
|----------------------------------------|--------------------|--------------------------------|-----------------------------------------------------|--------------------------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|----------------------------------------------|--------------|---------------------------------|-------------------------------------------|-------------------------------------------------------|--------------|------------------------------|-----------------------------------------|---------------------------------------------------------------------|
|                                        |                    |                                |                                                     | Actual Affected Areas                                  |                                         |                                         |                                         | Areas Threatened due to Volcanic Hazards     |              |                                 |                                           |                                                       |              |                              | prone to<br>regional<br>flooding<br>(3) | outside<br>volcanic<br>hazard area<br>& regional<br>flooding<br>(4) |
|                                        |                    |                                |                                                     | 1991<br>pyroclastic<br>flow<br>deposits                | covered<br>by 1991<br>lahar<br>deposits | additional<br>1992<br>lahar<br>deposits | additional<br>1993<br>lahar<br>deposits | lahar<br>dammed<br>later/<br>ponded<br>water | Total<br>(1) | prone to<br>lahar<br>deposition | prone to<br>lahar-<br>induced<br>flooding | prone to<br>future<br>pyroclastic<br>flow<br>deposits | Total<br>(2) |                              |                                         |                                                                     |
| PAMPANGA                               | 1,160,380          | 200,611                        | 181,471.01                                          | 3,096.10                                               | 11,813.72                               | 1,678,388                               | 1,190.78                                | 102.25                                       | 17,876.73    | 30,603.64                       | 40,220.66                                 | 29,993.96                                             | 100,850.24   | 80,811.72                    | 31,550.43                               | 231,089.16                                                          |
| ANGELES CITY                           | 128,100            | 24,555                         | 6,423.55                                            | 366.72                                                 | 710.08                                  | 0.00                                    | 0.00                                    | 0.00                                         | 1,075.80     | 38.74                           | 230.87                                    | 3,896.48                                              | 4,168.07     | 0.00                         | 1,975.61                                | 7,220.48                                                            |
| 1 ANISIC                               | 3,628              | 704                            | 238.59                                              | 0.00                                                   | 14.96                                   | 0.00                                    | 0.00                                    | 0.00                                         | 14.96        | 0.00                            | 0.00                                      | 84.32                                                 | 84.32        | 0.00                         | 153.59                                  | 252.78                                                              |
| 2 ANUNAS                               | 5,939              | 1,168                          | 949.51                                              | 0.00                                                   | 43.55                                   | 0.00                                    | 0.00                                    | 0.00                                         | 43.55        | 0.00                            | 0.00                                      | 949.51                                                | 949.51       | 0.00                         | 0.00                                    | 973.06                                                              |
| 3 CAPAYA                               | 4,392              | 769                            | 165.76                                              | 0.00                                                   | 58.63                                   | 0.00                                    | 0.00                                    | 0.00                                         | 58.63        | 0.00                            | 56.03                                     | 0.00                                                  | 56.03        | 0.00                         | 107.00                                  | 221.66                                                              |
| 4 CLARO M. RECTO                       | 6,453              | 1,317                          | 188.99                                              | 0.00                                                   | 28.42                                   | 0.00                                    | 0.00                                    | 0.00                                         | 28.42        | 0.00                            | 0.00                                      | 0.00                                                  | 0.00         | 0.00                         | 158.57                                  | 185.99                                                              |
| 5 CUAYAN                               | 920                | 179                            | 910.22                                              | 0.00                                                   | 202.25                                  | 0.00                                    | 0.00                                    | 0.00                                         | 202.25       | 12.79                           | 0.00                                      | 569.95                                                | 582.74       | 0.00                         | 218.97                                  | 1,003.96                                                            |
| 6 CUTCUT                               | 17,451             | 3,579                          | 146.25                                              | 16.93                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 18.93                                        | 0.00         | 0.00                            | 0.00                                      | 0.00                                                  | 0.00         | 0.00                         | 129.32                                  | 148.25                                                              |
| 7 MARGOT                               | 2,452              | 431                            | 135.26                                              | 0.00                                                   | 14.22                                   | 0.00                                    | 0.00                                    | 0.00                                         | 14.22        | 0.00                            | 0.00                                      | 116.22                                                | 116.22       | 0.00                         | 19.04                                   | 149.48                                                              |
| 8 PAMPANG                              | 5,727              | 1,023                          | 102.75                                              | 0.00                                                   | 0.64                                    | 0.00                                    | 0.00                                    | 0.00                                         | 0.64         | 0.00                            | 0.00                                      | 0.00                                                  | 0.00         | 0.00                         | 101.95                                  | 102.57                                                              |
| 9 PANDAN                               | 7,565              | 1,334                          | 97.41                                               | 0.00                                                   | 57.85                                   | 0.00                                    | 0.00                                    | 0.00                                         | 57.85        | 0.00                            | 42.20                                     | 0.00                                                  | 42.20        | 0.00                         | 37.64                                   | 137.69                                                              |
| 10 PULONG MARAGUIL                     | 8,649              | 1,859                          | 151.92                                              | 0.00                                                   | 8.35                                    | 0.00                                    | 0.00                                    | 0.00                                         | 8.35         | 0.00                            | 7.40                                      | 0.00                                                  | 7.40         | 0.00                         | 143.49                                  | 159.24                                                              |
| 11 SALAPUNGAN                          | 6,649              | 1,280                          | 209.50                                              | 0.00                                                   | 15.35                                   | 0.00                                    | 0.00                                    | 0.00                                         | 15.35        | 0.00                            | 0.15                                      | 0.00                                                  | 0.15         | 0.00                         | 194.11                                  | 209.61                                                              |
| 12 SAN JOSE                            | 6,940              | 1,283                          | 91.16                                               | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                         | 0.00         | 0.00                            | 1.27                                      | 0.00                                                  | 1.27         | 0.00                         | 89.89                                   | 91.16                                                               |
| 13 SAN NICOLAS                         | 3,532              | 713                            | 97.70                                               | 0.00                                                   | 45.48                                   | 0.00                                    | 0.00                                    | 0.00                                         | 45.48        | 0.00                            | 0.00                                      | 0.00                                                  | 0.00         | 0.00                         | 52.22                                   | 97.70                                                               |
| 14 SAPALIBTAD                          | 2,812              | 481                            | 217.38                                              | 0.00                                                   | 10.04                                   | 0.00                                    | 0.00                                    | 0.00                                         | 10.04        | 0.00                            | 8.68                                      | 0.00                                                  | 8.68         | 0.00                         | 206.87                                  | 225.99                                                              |
| 15 SAPANG BATO                         | 9,477              | 1,793                          | 2,179.20                                            | 366.72                                                 | 104.16                                  | 0.00                                    | 0.00                                    | 0.00                                         | 470.88       | 0.00                            | 0.00                                      | 2,178.46                                              | 2,178.46     | 0.00                         | 0.74                                    | 2,650.08                                                            |
| 16 STA. TERESITA                       | 11,690             | 2,325                          | 55.66                                               | 0.00                                                   | 0.99                                    | 0.00                                    | 0.00                                    | 0.00                                         | 0.99         | 0.00                            | 0.00                                      | 0.00                                                  | 0.00         | 0.00                         | 55.07                                   | 55.68                                                               |
| 17 STA. TRINIDAD                       | 5,887              | 1,082                          | 116.17                                              | 0.00                                                   | 11.93                                   | 0.00                                    | 0.00                                    | 0.00                                         | 11.93        | 0.00                            | 0.00                                      | 0.00                                                  | 0.00         | 0.00                         | 104.24                                  | 116.17                                                              |
| 18 STO. DOMINGO                        | 14,869             | 2,629                          | 221.75                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                         | 0.00         | 25.95                           | 59.71                                     | 0.00                                                  | 85.66        | 0.00                         | 136.09                                  | 221.75                                                              |
| 19 TABUN                               | 1,515              | 275                            | 105.84                                              | 0.00                                                   | 49.23                                   | 0.00                                    | 0.00                                    | 0.00                                         | 49.23        | 0.00                            | 55.43                                     | 0.00                                                  | 55.43        | 0.00                         | 49.74                                   | 154.40                                                              |
| 20 V. DE LOS REMEDIOS                  | 1,551              | 331                            | 44.68                                               | 0.00                                                   | 27.50                                   | 0.00                                    | 0.00                                    | 0.00                                         | 27.50        | 0.00                            | 0.00                                      | 0.00                                                  | 0.00         | 0.00                         | 17.18                                   | 44.68                                                               |
| ARAYAT                                 | 64,589             | 10,661                         | 9,113.05                                            | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                         | 0.00         | 0.00                            | 87.12                                     | 0.00                                                  | 87.12        | 6,913.49                     | 2,199.56                                | 9,200.17                                                            |
| 1 DATASAN                              | 1,422              | 235                            | 189.74                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                         | 0.00         | 0.00                            | 0.00                                      | 0.00                                                  | 0.00         | 189.74                       | 0.00                                    | 189.74                                                              |
| 2 CANDATING                            | 3,052              | 545                            | 613.42                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                         | 0.00         | 0.00                            | 0.00                                      | 0.00                                                  | 0.00         | 613.42                       | 0.00                                    | 613.42                                                              |
| 3 GATAWIN                              | 3,124              | 487                            | 659.85                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                         | 0.00         | 0.00                            | 0.00                                      | 0.00                                                  | 0.00         | 600.43                       | 59.42                                   | 659.85                                                              |
| 4 GUJEMASAN                            | 2,501              | 416                            | 72.28                                               | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                         | 0.00         | 0.00                            | 0.00                                      | 0.00                                                  | 0.00         | 0.00                         | 0.00                                    | 72.28                                                               |
| 5 KALEDIAN (CAMBA)                     | 2,644              | 449                            | 181.03                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                         | 0.00         | 0.00                            | 0.00                                      | 0.00                                                  | 0.00         | 181.03                       | 0.00                                    | 181.03                                                              |
| 6 LA PAZ (TURU)                        | 420                | 69                             | 743.43                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                         | 0.00         | 0.00                            | 0.03                                      | 0.00                                                  | 0.03         | 77.88                        | 665.55                                  | 743.43                                                              |
| 7 LACUIT                               | 3,367              | 535                            | 514.96                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                         | 0.00         | 0.00                            | 0.00                                      | 0.00                                                  | 0.00         | 354.66                       | 160.29                                  | 514.96                                                              |
| 8 LAQUIOUS                             | 1,713              | 260                            | 37.42                                               | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                         | 0.00         | 0.00                            | 0.00                                      | 0.00                                                  | 0.00         | 37.42                        | 0.00                                    | 37.42                                                               |
| 9 MANGA-CACUTUD                        | 6,475              | 1,060                          | 78.14                                               | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                         | 0.00         | 0.00                            | 0.00                                      | 0.00                                                  | 0.00         | 78.14                        | 0.00                                    | 78.14                                                               |

**List of Barangays Affected/Threatened by Pinatubo Volcanic and Flood Hazards  
Based on May 5, 1994 Pinatubo Volcanic and Flood Hazards Map (2/7)**  
(Areas in Hectares)

| Province/City<br>Municipality/Barangay | 1990<br>Population | 1990<br>Number of<br>Household | Estimated<br>area of<br>barangay<br>based on<br>GIS | Actual Affected Areas                                 |                                         |                                         |                                         |                                         |                                 | Areas Threatened due to Volcanic Hazards    |              |                                 |                                           | outside<br>volcanic<br>hazard area<br>& regional<br>flooding<br>(4) | (1)+(2)+(3)+<br>(4) |                                                       |              |                                         |
|----------------------------------------|--------------------|--------------------------------|-----------------------------------------------------|-------------------------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|---------------------------------|---------------------------------------------|--------------|---------------------------------|-------------------------------------------|---------------------------------------------------------------------|---------------------|-------------------------------------------------------|--------------|-----------------------------------------|
|                                        |                    |                                |                                                     | covered<br>by 1991<br>pyroclastic<br>flow<br>deposits |                                         | additional<br>1992<br>lahar<br>deposits |                                         | additional<br>1993<br>lahar<br>deposits |                                 | lahar<br>dammed<br>lake/<br>ponded<br>water | Total<br>(1) | prone to<br>lahar<br>deposition | prone to<br>lahar-<br>induced<br>flooding |                                                                     |                     | prone to<br>future<br>pyroclastic<br>flow<br>deposits | Total<br>(2) | prone to<br>regional<br>flooding<br>(3) |
|                                        |                    |                                |                                                     | 1991<br>pyroclastic<br>flow<br>deposits               | covered<br>by 1991<br>lahar<br>deposits | additional<br>1992<br>lahar<br>deposits | additional<br>1993<br>lahar<br>deposits | 1991<br>pyroclastic<br>flow<br>deposits | prone to<br>lahar<br>deposition |                                             |              |                                 |                                           |                                                                     |                     |                                                       |              |                                         |
| 10. NABALAD                            | 2,099              | 344                            | 1,421.76                                            | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 0.00                                        | 22.10        | 0.00                            | 0.00                                      | 1,421.76                                                            | 0.00                | 1,421.76                                              |              |                                         |
| 11. PARALAYA                           | 1,427              | 261                            | 35.67                                               | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 0.00                                        | 0.00         | 0.00                            | 0.00                                      | 35.67                                                               | 0.00                | 35.67                                                 |              |                                         |
| 12. PLAZANG LUMA                       | 3,847              | 650                            | 196.75                                              | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 0.00                                        | 0.00         | 0.00                            | 0.00                                      | 196.75                                                              | 0.00                | 196.75                                                |              |                                         |
| 13. POBLACION                          | 2,917              | 542                            | 33.42                                               | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 0.00                                        | 0.00         | 0.00                            | 0.00                                      | 33.42                                                               | 0.00                | 33.42                                                 |              |                                         |
| 14. SAN AGUSTIN NORTE                  | 2,333              | 381                            | 74.14                                               | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 0.00                                        | 0.00         | 0.00                            | 0.00                                      | 74.14                                                               | 0.00                | 74.14                                                 |              |                                         |
| 15. SAN AGUSTIN SUR                    | 1,082              | 184                            | 37.50                                               | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 0.00                                        | 0.00         | 0.00                            | 0.00                                      | 37.50                                                               | 0.00                | 37.50                                                 |              |                                         |
| 16. SAN JOSE MIESULO                   | 3,511              | 591                            | 114.62                                              | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 0.00                                        | 0.00         | 0.00                            | 0.00                                      | 114.62                                                              | 0.00                | 114.62                                                |              |                                         |
| 17. SAN JUAN BANO                      | 4,459              | 727                            | 896.20                                              | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 0.00                                        | 0.00         | 0.00                            | 0.00                                      | 896.20                                                              | 474.75              | 1,370.95                                              |              |                                         |
| 18. SAN MATEO                          | 3,478              | 534                            | 649.52                                              | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 0.00                                        | 54.29        | 0.00                            | 0.00                                      | 649.52                                                              | 0.00                | 649.52                                                |              |                                         |
| 19. SAN NICOLAS                        | 4,702              | 777                            | 133.67                                              | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 0.00                                        | 0.00         | 0.00                            | 0.00                                      | 133.67                                                              | 0.00                | 133.67                                                |              |                                         |
| 20. SAN ROQUE (BITAS)                  | 2,555              | 373                            | 935.86                                              | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 0.00                                        | 0.00         | 0.00                            | 0.00                                      | 935.86                                                              | 839.55              | 1,775.41                                              |              |                                         |
| 21. STA. LUCIA CUPANG                  | 2,078              | 350                            | 71.66                                               | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 0.00                                        | 0.00         | 0.00                            | 0.00                                      | 71.66                                                               | 0.00                | 71.66                                                 |              |                                         |
| 22. STA. LUCIA MATAMO                  | 1,917              | 334                            | 121.91                                              | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 0.00                                        | 0.00         | 0.00                            | 0.00                                      | 121.91                                                              | 0.00                | 121.91                                                |              |                                         |
| 23. STO. NINO TARUAN                   | 1,693              | 263                            | 1,063.75                                            | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 0.00                                        | 10.70        | 0.00                            | 0.00                                      | 1,063.75                                                            | 0.00                | 1,063.75                                              |              |                                         |
| 24. SUCLAYIN                           | 1,773              | 304                            | 234.36                                              | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 0.00                                        | 0.00         | 0.00                            | 0.00                                      | 234.36                                                              | 0.00                | 234.36                                                |              |                                         |
| MARALAGAT                              | 62,819             | 11,513                         | 14,021.37                                           | 54.34                                                 | 1,262.47                                | 829.54                                  | 326.84                                  | 102.25                                  | 2,575.44                        | 3,869.22                                    | 408.12       | 2,545.32                        | 6,822.66                                  | 141.25                                                              | 7,073.29            | 16,612.64                                             |              |                                         |
| 1. UNKNOWN                             |                    |                                | 2,343.15                                            | 0.00                                                  | 12.21                                   | 17.16                                   | 0.00                                    | 0.00                                    | 29.37                           | 226.43                                      | 48.13        | 500.21                          | 774.77                                    | 141.25                                                              | 1,555.49            | 2,500.88                                              |              |                                         |
| 2. ATLU BOLA                           | 549                | 91                             | 92.76                                               | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 92.76                                       | 0.00         | 0.00                            | 0.00                                      | 0.00                                                                | 0.00                | 92.76                                                 |              |                                         |
| 3. BUNDAGUL                            | 987                | 187                            | 252.25                                              | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 252.25                                      | 0.00         | 0.00                            | 0.00                                      | 0.00                                                                | 0.00                | 252.25                                                |              |                                         |
| 4. CACUTUD                             | 1,563              | 248                            | 199.60                                              | 0.00                                                  | 0.00                                    | 190.38                                  | 9.22                                    | 0.00                                    | 199.60                          | 199.60                                      | 0.00         | 0.00                            | 0.00                                      | 0.00                                                                | 0.00                | 399.20                                                |              |                                         |
| 5. CALAINPANG                          | 431                | 76                             | 3,657.08                                            | 54.34                                                 | 122.43                                  | 0.00                                    | 0.00                                    | 0.00                                    | 176.77                          | 0.00                                        | 0.00         | 1,279.68                        | 1,279.68                                  | 0.00                                                                | 2,377.40            | 3,833.85                                              |              |                                         |
| 6. DOLORES                             | 8,218              | 1,471                          | 545.11                                              | 0.00                                                  | 129.59                                  | 151.79                                  | 0.00                                    | 39.43                                   | 320.81                          | 246.86                                      | 90.36        | 0.00                            | 337.22                                    | 0.00                                                                | 148.49              | 806.52                                                |              |                                         |
| 7. LAKANDULA                           | 6,524              | 1,268                          | 1,429.20                                            | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 0.00                                        | 0.00         | 0.00                            | 0.00                                      | 0.00                                                                | 0.00                | 1,429.20                                              |              |                                         |
| 8. MABIGA                              | 10,985             | 2,116                          | 141.65                                              | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 0.00                                        | 1.89         | 0.00                            | 0.00                                      | 0.00                                                                | 139.76              | 141.65                                                |              |                                         |
| 9. MACAPAGAL VILLAGE                   | 1,215              | 227                            | 616.10                                              | 0.00                                                  | 174.20                                  | 0.00                                    | 0.00                                    | 0.00                                    | 174.20                          | 2.95                                        | 0.00         | 297.51                          | 300.46                                    | 0.00                                                                | 314.46              | 789.12                                                |              |                                         |
| 10. MANATTIANG                         | 1,662              | 296                            | 201.08                                              | 0.00                                                  | 0.00                                    | 68.04                                   | 11.96                                   | 0.00                                    | 80.02                           | 201.08                                      | 0.00         | 0.00                            | 0.00                                      | 0.00                                                                | 0.00                | 201.08                                                |              |                                         |
| 11. MANGALIT                           | 649                | 114                            | 216.48                                              | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 2.93                                        | 50.90        | 0.00                            | 0.00                                      | 0.00                                                                | 0.00                | 218.49                                                |              |                                         |
| 12. MARCOS VILLAGE                     | 2,031              | 362                            | 579.30                                              | 0.00                                                  | 143.29                                  | 19.07                                   | 0.00                                    | 0.00                                    | 162.36                          | 0.00                                        | 0.00         | 317.74                          | 317.74                                    | 0.00                                                                | 219.34              | 699.34                                                |              |                                         |
| 13. MAWAKE                             | 549                | 99                             | 257.30                                              | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 79.17                                       | 41.66        | 0.00                            | 0.00                                      | 0.00                                                                | 136.47              | 257.30                                                |              |                                         |
| 14. PARALAYUAN                         | 676                | 129                            | 234.13                                              | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 234.13                                      | 0.00         | 0.00                            | 0.00                                      | 0.00                                                                | 0.00                | 234.13                                                |              |                                         |
| 15. POBLACION                          | 2,552              | 465                            | 6.95                                                | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 6.95                                        | 0.00         | 0.00                            | 0.00                                      | 0.00                                                                | 0.00                | 6.95                                                  |              |                                         |
| 16. SAN FRANCISCO                      | 10,432             | 1,949                          | 142.39                                              | 0.00                                                  | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                            | 4.83                                        | 72.16        | 0.00                            | 0.00                                      | 0.00                                                                | 0.00                | 142.39                                                |              |                                         |
| 17. SAN JOAQUIN                        | 4,879              | 843                            | 663.31                                              | 0.00                                                  | 38.70                                   | 24.09                                   | 0.00                                    | 0.00                                    | 62.82                           | 172.73                                      | 94.98        | 77.30                           | 345.01                                    | 0.00                                                                | 279.16              | 750.33                                                |              |                                         |

**List of Barangays Affected/Threatened by Pinatubo Volcanic and Flood Hazards  
Based on May 5, 1994 Pinatubo Volcanic and Flood Hazards Map (3/7)  
(Areas in Hectares)**

| Province/City<br>Municipality/Barangay | 1990<br>Population | 1990<br>Number of<br>Household | Estimated<br>area of<br>barangay<br>based on<br>GIS | Actual Affected Areas                   |                                         |                                         |                                         |                                             |              | Areas Threatened due to Volcanic Hazards |                                           |                                                       |              | prone to<br>regional<br>flooding<br>(3) | outside<br>volcanic<br>hazard area<br>& regional<br>flooding<br>(4) | (1)+(2)+(3)+<br>(4) |           |
|----------------------------------------|--------------------|--------------------------------|-----------------------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|---------------------------------------------|--------------|------------------------------------------|-------------------------------------------|-------------------------------------------------------|--------------|-----------------------------------------|---------------------------------------------------------------------|---------------------|-----------|
|                                        |                    |                                |                                                     | 1991<br>pyroclastic<br>flow<br>deposits | covered<br>by 1991<br>lahar<br>deposits | additional<br>1992<br>lahar<br>deposits | additional<br>1993<br>lahar<br>deposits | lahar<br>dammed<br>lake/<br>ponded<br>water | Total<br>(1) | prone to<br>lahar<br>deposition          | prone to<br>lahar-<br>induced<br>flooding | prone to<br>future<br>pyroclastic<br>flow<br>deposits | Total<br>(2) |                                         |                                                                     |                     |           |
|                                        |                    |                                |                                                     |                                         |                                         |                                         |                                         |                                             |              |                                          |                                           |                                                       |              |                                         |                                                                     |                     | 0.00      |
| 18 SAMPANG BAHAS                       | 570                | 102                            | 340.95                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 43.67                                    | 0.00                                      | 0.00                                                  | 0.00         | 43.67                                   | 0.00                                                                | 297.28              | 340.95    |
| 19 SAPANGBALEN                         | 347                | 60                             | 1,133.99                                            | 0.00                                    | 269.31                                  | 245.09                                  | 303.21                                  | 0.00                                        | 0.00         | 1,133.99                                 | 0.00                                      | 0.00                                                  | 0.00         | 1,133.99                                | 0.00                                                                | 0.00                | 1,951.60  |
| 20 STA. INES                           | 4,479              | 799                            | 277.48                                              | 0.00                                    | 0.00                                    | 5.76                                    | 2.43                                    | 0.00                                        | 0.00         | 277.48                                   | 0.00                                      | 0.00                                                  | 0.00         | 277.48                                  | 0.00                                                                | 0.00                | 285.67    |
| 21 STA. MARIA                          | 520                | 83                             | 171.27                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 145.08                                   | 7.92                                      | 0.00                                                  | 0.00         | 153.00                                  | 0.00                                                                | 18.27               | 171.27    |
| 22 TABUN                               | 3,001              | 528                            | 561.84                                              | 0.00                                    | 372.74                                  | 107.54                                  | 0.00                                    | 0.00                                        | 0.00         | 546.33                                   | 0.12                                      | 0.00                                                  | 0.00         | 546.45                                  | 0.00                                                                | 2.95                | 1,029.70  |
| MAGALANG                               | 19,990             | 3,317                          | 10,893.36                                           | 0.00                                    | 3.26                                    | 20.23                                   | 254.24                                  | 0.00                                        | 0.00         | 4,461.71                                 | 2,085.19                                  | 0.00                                                  | 0.00         | 6,546.90                                | 533.31                                                              | 4,230.00            | 11,887.95 |
| 1 AYALA                                | 1,779              | 315                            | 59.49                                               | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 5.82                                     | 0.00                                      | 0.00                                                  | 0.00         | 5.82                                    | 0.00                                                                | 53.67               | 59.49     |
| 2 BUCANAN                              | 947                | 166                            | 162.30                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 41.45                                    | 0.00                                      | 0.00                                                  | 0.00         | 41.45                                   | 0.00                                                                | 120.85              | 162.30    |
| 3 LA PAZ                               | 922                | 142                            | 218.75                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 136.24                                   | 0.00                                      | 0.00                                                  | 0.00         | 136.24                                  | 0.00                                                                | 82.51               | 218.75    |
| 4 NAYALINGO                            | 854                | 138                            | 426.20                                              | 0.00                                    | 0.00                                    | 0.00                                    | 65.77                                   | 0.00                                        | 0.00         | 426.20                                   | 0.00                                      | 0.00                                                  | 0.00         | 426.20                                  | 0.00                                                                | 0.00                | 491.97    |
| 5 SAN AGUSTIN                          | 1,237              | 216                            | 3,113.83                                            | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.16                                     | 319.00                                    | 0.00                                                  | 0.00         | 319.16                                  | 0.00                                                                | 3,128.46            | 3,133.83  |
| 6 SAN ANTONIO                          | 752                | 128                            | 321.49                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 321.49                                   | 0.00                                      | 0.00                                                  | 0.00         | 321.49                                  | 0.00                                                                | 0.00                | 321.49    |
| 7 SAN ILDEFONSO                        | 4,503              | 743                            | 555.94                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 207.21                                   | 249.92                                    | 0.00                                                  | 0.00         | 457.13                                  | 0.00                                                                | 96.85               | 555.94    |
| 8 SAN ISIDRO                           | 756                | 106                            | 563.37                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 563.37                                   | 0.00                                      | 0.00                                                  | 0.00         | 563.37                                  | 0.00                                                                | 0.00                | 563.37    |
| 9 SAN MIGUEL                           | 1,216              | 196                            | 194.11                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 115.25                                   | 0.00                                      | 0.00                                                  | 0.00         | 115.25                                  | 0.00                                                                | 78.86               | 194.11    |
| 10 SAN ROQUE                           | 1,795              | 296                            | 682.64                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 682.64                                   | 0.00                                      | 0.00                                                  | 0.00         | 682.64                                  | 0.00                                                                | 0.00                | 682.64    |
| 11 STA. LUCIA                          | 352                | 65                             | 397.94                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 133.91                                   | 0.00                                      | 0.00                                                  | 0.00         | 133.91                                  | 0.00                                                                | 264.07              | 397.94    |
| 12 STA. MARIA                          | 1,428              | 241                            | 577.04                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 577.04                                   | 0.00                                      | 0.00                                                  | 0.00         | 577.04                                  | 0.00                                                                | 0.00                | 577.04    |
| 13 STO. ROSARIO                        | 2,547              | 433                            | 1,053.43                                            | 0.00                                    | 0.00                                    | 20.23                                   | 188.47                                  | 0.00                                        | 0.00         | 1,053.43                                 | 0.00                                      | 0.00                                                  | 0.00         | 1,053.43                                | 0.00                                                                | 0.00                | 1,262.17  |
| 14 TURU                                | 842                | 128                            | 2,548.73                                            | 0.00                                    | 3.26                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 197.50                                   | 1,832.14                                  | 0.00                                                  | 0.00         | 2,029.64                                | 533.25                                                              | 402.71              | 2,968.94  |
| MEXICO                                 | 55,623             | 8,962                          | 6,480.87                                            | 0.00                                    | 2,306.69                                | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 4,119.82                                  | 0.00                                                  | 0.00         | 4,119.82                                | 2,830.53                                                            | 2,091.76            | 11,298.80 |
| 1 BALAS                                | 1,664              | 274                            | 204.84                                              | 0.00                                    | 204.80                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 204.80                                   | 0.00                                      | 0.00                                                  | 0.00         | 204.80                                  | 146.07                                                              | 0.00                | 555.71    |
| 2 CAWAYAN                              | 638                | 131                            | 318.79                                              | 0.00                                    | 30.31                                   | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 30.31                                    | 29.10                                     | 0.00                                                  | 0.00         | 29.10                                   | 0.00                                                                | 287.27              | 346.64    |
| 3 CONCEPCION                           | 1,418              | 240                            | 67.47                                               | 0.00                                    | 22.79                                   | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 22.79                                    | 51.99                                     | 0.00                                                  | 0.00         | 51.99                                   | 0.00                                                                | 15.28               | 90.06     |
| 4 CULLUBASA                            | 2,303              | 353                            | 156.89                                              | 0.00                                    | 130.79                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 130.79                                   | 131.65                                    | 0.00                                                  | 0.00         | 131.65                                  | 0.00                                                                | 23.78               | 286.22    |
| 5 DIVISORIA                            | 1,083              | 172                            | 219.73                                              | 0.00                                    | 84.31                                   | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 84.31                                    | 219.73                                    | 0.00                                                  | 0.00         | 219.73                                  | 219.73                                                              | 0.00                | 523.77    |
| 6 DOLORES (PBRNG)                      | 1,057              | 165                            | 267.77                                              | 0.00                                    | 137.34                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 137.34                                   | 267.77                                    | 0.00                                                  | 0.00         | 267.77                                  | 267.77                                                              | 0.00                | 672.84    |
| 7 EDEN                                 | 362                | 53                             | 222.90                                              | 0.00                                    | 39.21                                   | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 39.21                                    | 37.61                                     | 0.00                                                  | 0.00         | 37.61                                   | 0.00                                                                | 182.51              | 259.31    |
| 8 GANDUS                               | 473                | 75                             | 324.39                                              | 0.00                                    | 14.39                                   | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 14.39                                    | 12.79                                     | 0.00                                                  | 0.00         | 12.79                                   | 0.00                                                                | 309.68              | 336.96    |
| 9 LAGUNDI                              | 2,399              | 415                            | 264.89                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 80.77                                     | 0.00                                                  | 0.00         | 80.77                                   | 158.59                                                              | 106.30              | 345.66    |
| 10 LAPUT                               | 1,451              | 234                            | 117.80                                              | 0.00                                    | 117.80                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 117.80                                   | 117.80                                    | 0.00                                                  | 0.00         | 117.80                                  | 2.45                                                                | 0.00                | 238.05    |
| 11 LAUG                                | 1,847              | 289                            | 158.72                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 158.72                                    | 0.00                                                  | 0.00         | 158.72                                  | 158.72                                                              | 0.00                | 317.41    |

**List of Barangays Affected/Threatened by Pinatubo Volcanic and Flood Hazards  
Based on May 5, 1994 Pinatubo Volcanic and Flood Hazards Map (4/77)  
(Areas in Hectares)**

| Province/City<br>Municipality/Barangay | 1990<br>Population | 1990<br>Number of<br>Household | Estimated<br>area of<br>barangay<br>based on<br>GIS | Actual Affected Areas                   |                                         |                                         |                                         |                                             |              | Areas Threatened due to Volcanic Hazards |                                           |                                                       |              | prone to<br>regional<br>flooding<br>(3) | outside<br>volcanic<br>hazard area<br>& regional<br>flooding<br>(4) | (1)+(2)+(3)+<br>(4) |
|----------------------------------------|--------------------|--------------------------------|-----------------------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|---------------------------------------------|--------------|------------------------------------------|-------------------------------------------|-------------------------------------------------------|--------------|-----------------------------------------|---------------------------------------------------------------------|---------------------|
|                                        |                    |                                |                                                     | 1991<br>pyroclastic<br>flow<br>deposits | covered<br>by 1991<br>lahar<br>deposits | additional<br>1992<br>lahar<br>deposits | additional<br>1993<br>lahar<br>deposits | lahar<br>dammed<br>lake/<br>ponded<br>water | Total<br>(1) | prone to<br>lahar<br>deposition          | prone to<br>lahar-<br>induced<br>flooding | prone to<br>future<br>pyroclastic<br>flow<br>deposits | Total<br>(2) |                                         |                                                                     |                     |
|                                        |                    |                                |                                                     |                                         |                                         |                                         |                                         |                                             |              |                                          |                                           |                                                       |              |                                         |                                                                     |                     |
| 12 MASANGANG                           | 2,147              | 342                            | 275.99                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 125.69                                                | 238.63       | 37.36                                   | 401.68                                                              |                     |
| 13 PANGATLAN                           | 1,352              | 208                            | 590.72                                              | 0.00                                    | 255.26                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 399.88                                                | 0.00         | 182.89                                  | 838.01                                                              |                     |
| 14 PARIAN (POB)                        | 4,109              | 665                            | 38.89                                               | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 1.99                                                  | 34.99        | 3.90                                    | 40.88                                                               |                     |
| 15 SABANILLA                           | 1,098              | 183                            | 123.45                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 0.00                                                  | 1.83         | 121.62                                  | 123.45                                                              |                     |
| 16 SAN ANTONIO                         | 3,916              | 619                            | 28.05                                               | 0.00                                    | 11.63                                   | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 19.11                                                 | 28.05        | 0.00                                    | 58.79                                                               |                     |
| 17 SAN CARLOS                          | 2,118              | 341                            | 83.60                                               | 0.00                                    | 1.85                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 12.00                                                 | 26.25        | 55.94                                   | 96.04                                                               |                     |
| 18 SAN JOSE MAJINO                     | 3,522              | 545                            | 239.07                                              | 0.00                                    | 0.71                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 100.11                                                | 0.00         | 139.56                                  | 240.38                                                              |                     |
| 19 SAN JOSE NATULID                    | 1,938              | 320                            | 221.86                                              | 0.00                                    | 64.04                                   | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 195.90                                                | 221.88       | 0.00                                    | 481.82                                                              |                     |
| 20 SAN JUAN                            | 2,464              | 385                            | 100.85                                              | 0.00                                    | 32.91                                   | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 58.47                                                 | 0.00         | 42.13                                   | 133.51                                                              |                     |
| 21 SAN LORENZO                         | 1,693              | 275                            | 82.84                                               | 0.00                                    | 82.84                                   | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 82.84                                                 | 0.00         | 0.00                                    | 248.52                                                              |                     |
| 22 SAN NICOLAS                         | 1,465              | 242                            | 113.02                                              | 0.00                                    | 66.99                                   | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 113.02                                                | 113.02       | 0.00                                    | 293.08                                                              |                     |
| 23 SAN PABLO                           | 1,335              | 220                            | 104.47                                              | 0.00                                    | 104.47                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 104.47                                                | 104.47       | 0.00                                    | 313.41                                                              |                     |
| 24 SAN PATRICIO                        | 2,896              | 454                            | 230.97                                              | 0.00                                    | 230.97                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 230.97                                                | 183.60       | 0.00                                    | 643.54                                                              |                     |
| 25 SAN ROQUE                           | 647                | 104                            | 154.14                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 154.06                                                | 154.14       | 0.00                                    | 308.20                                                              |                     |
| 26 SAN VICENTE                         | 2,439              | 378                            | 219.75                                              | 0.00                                    | 4.22                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 4.22                                      | 68.29                                                 | 0.75         | 151.46                                  | 224.72                                                              |                     |
| 27 STA. CRUZ                           | 1,406              | 201                            | 321.69                                              | 0.00                                    | 122.97                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 122.97                                    | 261.75                                                | 0.00         | 56.18                                   | 440.90                                                              |                     |
| 28 STA. MARIA                          | 1,597              | 272                            | 173.52                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 147.89                                                | 173.52       | 0.00                                    | 321.41                                                              |                     |
| 29 STO. DOMINGO                        | 1,617              | 277                            | 185.30                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 185.30                                                | 185.30       | 0.00                                    | 370.60                                                              |                     |
| 30 STO. ROSARIO                        | 1,870              | 317                            | 327.93                                              | 0.00                                    | 324.81                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 324.81                                    | 327.93                                                | 327.93       | 0.00                                    | 980.67                                                              |                     |
| 31 SUCLABAN                            | 584                | 97                             | 314.73                                              | 0.00                                    | 181.54                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 181.54                                    | 176.65                                                | 0.00         | 131.94                                  | 490.13                                                              |                     |
| 32 TANGLAY (TANGLE)                    | 705                | 116                            | 225.31                                              | 0.00                                    | 39.74                                   | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 39.74                                     | 40.73                                                 | 0.00         | 183.96                                  | 264.43                                                              |                     |
| STANAN                                 | 29,803             | 4,828                          | 4,037.74                                            | 0.00                                    | 323.71                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 323.71                                    | 980.87                                                | 3,226.83     | 623.37                                  | 5,154.78                                                            |                     |
| 1 SAN AGUSTIN                          | 1,649              | 271                            | 530.34                                              | 0.00                                    | 183.06                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 183.06                                    | 100.74                                                | 425.12       | 56.33                                   | 767.25                                                              |                     |
| 2 SAN BARTOLOME                        | 1,522              | 233                            | 271.31                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 80.37                                                 | 271.31       | 0.00                                    | 351.68                                                              |                     |
| 3 SAN ISIDRO                           | 4,203              | 690                            | 300.66                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 0.00                                                  | 300.66       | 0.00                                    | 300.66                                                              |                     |
| 4 SAN JOAQUIN (POB.)                   | 2,767              | 445                            | 205.17                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 102.38                                                | 205.17       | 0.00                                    | 307.55                                                              |                     |
| 5 SAN JOSE                             | 737                | 128                            | 145.82                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 142.46                                                | 145.82       | 0.00                                    | 298.29                                                              |                     |
| 6 SAN JUAN                             | 1,569              | 265                            | 149.25                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 149.25                                                | 149.25       | 0.00                                    | 298.50                                                              |                     |
| 7 SAN NICOLAS                          | 2,639              | 43                             | 136.45                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 0.00                                                  | 136.45       | 0.00                                    | 136.45                                                              |                     |
| 8 SAN PEDRO                            | 939                | 160                            | 166.05                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 166.05                                                | 166.05       | 0.00                                    | 332.10                                                              |                     |
| 9 SAN ROQUE                            | 2,337              | 368                            | 529.77                                              | 0.00                                    | 138.65                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 138.65                                    | 58.68                                                 | 0.00         | 391.12                                  | 598.45                                                              |                     |
| 10 SANTA MARIA                         | 3,819              | 617                            | 237.12                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 89.55                                                 | 237.12       | 0.00                                    | 326.67                                                              |                     |
| 11 SANTIAGO                            | 2,757              | 418                            | 311.79                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                                     | 0.00                                      | 0.00                                                  | 311.79       | 0.00                                    | 311.79                                                              |                     |



**List of Barangays Affected/Threatened by Pinatubo Volcanic and Flood Hazards  
Based on May 5, 1994 Pinatubo Volcanic and Flood Hazards Map (5/7)  
(Areas in Hectares)**

| Province/City<br>Municipality/Barangay | 1990<br>Population | 1990<br>Number of<br>Household | Estimated<br>area of<br>barangay<br>based on<br>GIS | Actual Affected Areas                   |                                         |                                         |                                         |                                             |           |                                 |                                           |                                                       |           | Areas Threatened due to Volcanic Hazards |                                                                     |            |           |        | outside<br>volcanic<br>hazard area<br>& regional<br>flooding<br>(4) | (1)+(2)+(3)+<br>(4) |
|----------------------------------------|--------------------|--------------------------------|-----------------------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|---------------------------------------------|-----------|---------------------------------|-------------------------------------------|-------------------------------------------------------|-----------|------------------------------------------|---------------------------------------------------------------------|------------|-----------|--------|---------------------------------------------------------------------|---------------------|
|                                        |                    |                                |                                                     | 1991<br>pyroclastic<br>flow<br>deposits | covered<br>by 1991<br>lahar<br>deposits | additional<br>1992<br>lahar<br>deposits | additional<br>1993<br>lahar<br>deposits | lahar<br>dammed<br>lake/<br>ponded<br>water | Total     | prone to<br>lahar<br>deposition | prone to<br>lahar-<br>induced<br>flooding | prone to<br>future<br>pyroclastic<br>flow<br>deposits | Total     | prone to<br>regional<br>flooding<br>(3)  | outside<br>volcanic<br>hazard area<br>& regional<br>flooding<br>(4) |            |           |        |                                                                     |                     |
|                                        |                    |                                |                                                     |                                         |                                         |                                         |                                         |                                             |           |                                 |                                           |                                                       |           |                                          |                                                                     | (1)        | (2)       |        |                                                                     |                     |
| 12 SANTO ROSARIO                       | 977                | 154                            | 404.55                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00      | 0.00                            | 0.00                                      | 0.00                                                  | 0.00      | 0.00                                     | 0.00                                                                | 0.00       | 0.00      | 228.03 | 175.92                                                              | 404.55              |
| 13 STA. LUCIA                          | 3,888              | 645                            | 549.46                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00      | 0.00                            | 0.00                                      | 0.00                                                  | 0.00      | 0.00                                     | 0.00                                                                | 0.00       | 0.00      | 649.46 | 0.00                                                                | 740.85              |
| TARLAC                                 | 256,920            | 43,955                         | 96,976.59                                           | 534.34                                  | 8,787.51                                | 1,045.54                                | 1,216.84                                | 14.42                                       | 11,598.65 | 20,494.14                       | 10,886.96                                 | 7,057.55                                              | 38,438.67 | 3,439.28                                 | 57,953.29                                                           | 111,422.89 | 16,056.83 | 0.00   | 0.00                                                                | 14,282.87           |
| RAMBAN                                 | 33,452             | 5,796                          | 14,269.26                                           | 468.86                                  | 832.52                                  | 449.31                                  | 25.07                                   | 14.42                                       | 1,790.18  | 1,883.11                        | 317.60                                    | 4,757.73                                              | 6,958.44  | 0.00                                     | 7,308.21                                                            | 0.00       | 0.00      | 0.00   | 0.00                                                                | 7,308.21            |
| 1 ANUTUL                               | 5,035              | 887                            | 13,256.20                                           | 468.86                                  | 379.96                                  | 166.04                                  | 0.00                                    | 14.42                                       | 1,029.28  | 870.05                          | 317.60                                    | 4,757.73                                              | 5,945.38  | 0.00                                     | 7,308.21                                                            | 0.00       | 0.00      | 0.00   | 0.00                                                                | 7,308.21            |
| 2 BANADA                               | 5,695              | 964                            | 16.33                                               | 0.00                                    | 11.17                                   | 5.16                                    | 0.00                                    | 0.00                                        | 16.33     | 16.33                           | 0.00                                      | 0.00                                                  | 16.33     | 0.00                                     | 0.00                                                                | 0.00       | 0.00      | 0.00   | 0.00                                                                | 0.00                |
| 3 BANGCU                               | 216                | 35                             | 135.76                                              | 0.00                                    | 40.51                                   | 85.92                                   | 0.00                                    | 0.00                                        | 126.49    | 135.76                          | 0.00                                      | 0.00                                                  | 135.76    | 0.00                                     | 0.00                                                                | 0.00       | 0.00      | 0.00   | 0.00                                                                | 0.00                |
| 4 CULUBASA                             | 271                | 49                             | 11.80                                               | 0.00                                    | 3.21                                    | 8.49                                    | 0.00                                    | 0.00                                        | 11.79     | 11.80                           | 0.00                                      | 0.00                                                  | 11.80     | 0.00                                     | 0.00                                                                | 0.00       | 0.00      | 0.00   | 0.00                                                                | 0.00                |
| 5 DELA CRUZ                            | 2,613              | 456                            | 93.02                                               | 0.00                                    | 28.25                                   | 93.02                                   | 0.00                                    | 0.00                                        | 28.25     | 93.02                           | 0.00                                      | 0.00                                                  | 93.02     | 0.00                                     | 0.00                                                                | 0.00       | 0.00      | 0.00   | 0.00                                                                | 0.00                |
| 6 LA PAZ                               | 2,312              | 396                            | 93.56                                               | 0.00                                    | 22.51                                   | 43.62                                   | 0.00                                    | 0.00                                        | 66.13     | 93.56                           | 0.00                                      | 0.00                                                  | 93.56     | 0.00                                     | 0.00                                                                | 0.00       | 0.00      | 0.00   | 0.00                                                                | 0.00                |
| 7 LOURDES                              | 5,033              | 881                            | 25.88                                               | 0.00                                    | 19.68                                   | 6.20                                    | 0.00                                    | 0.00                                        | 25.88     | 25.88                           | 0.00                                      | 0.00                                                  | 25.88     | 0.00                                     | 0.00                                                                | 0.00       | 0.00      | 0.00   | 0.00                                                                | 0.00                |
| 8 MALONZO                              | 811                | 128                            | 162.04                                              | 0.00                                    | 110.20                                  | 26.77                                   | 25.07                                   | 0.00                                        | 162.04    | 162.04                          | 0.00                                      | 0.00                                                  | 162.04    | 0.00                                     | 0.00                                                                | 0.00       | 0.00      | 0.00   | 0.00                                                                | 0.00                |
| 9 PACALCAL                             | 1,126              | 194                            | 170.32                                              | 0.00                                    | 27.86                                   | 20.68                                   | 0.00                                    | 0.00                                        | 48.54     | 170.32                          | 0.00                                      | 0.00                                                  | 170.32    | 0.00                                     | 0.00                                                                | 0.00       | 0.00      | 0.00   | 0.00                                                                | 0.00                |
| 10 SAN NICOLAS (POB.)                  | 5,499              | 965                            | 35.74                                               | 0.00                                    | 35.74                                   | 0.00                                    | 0.00                                    | 0.00                                        | 35.74     | 35.74                           | 0.00                                      | 0.00                                                  | 35.74     | 0.00                                     | 0.00                                                                | 0.00       | 0.00      | 0.00   | 0.00                                                                | 0.00                |
| 11 SAN PEDRO                           | 2,069              | 365                            | 164.14                                              | 0.00                                    | 164.14                                  | 0.00                                    | 0.00                                    | 0.00                                        | 164.14    | 164.14                          | 0.00                                      | 0.00                                                  | 164.14    | 0.00                                     | 0.00                                                                | 0.00       | 0.00      | 0.00   | 0.00                                                                | 0.00                |
| 12 SAN RAFAEL                          | 684                | 110                            | 56.57                                               | 0.00                                    | 16.96                                   | 10.75                                   | 0.00                                    | 0.00                                        | 27.73     | 56.57                           | 0.00                                      | 0.00                                                  | 56.57     | 0.00                                     | 0.00                                                                | 0.00       | 0.00      | 0.00   | 0.00                                                                | 0.00                |
| 13 SAN ROQUE                           | 2,088              | 366                            | 47.90                                               | 0.00                                    | 0.46                                    | 47.44                                   | 0.00                                    | 0.00                                        | 47.90     | 47.90                           | 0.00                                      | 0.00                                                  | 47.90     | 0.00                                     | 0.00                                                                | 0.00       | 0.00      | 0.00   | 0.00                                                                | 0.00                |
| CAPAS                                  | 61,205             | 10,527                         | 50,858.86                                           | 65.48                                   | 2,624.07                                | 227.41                                  | 599.48                                  | 0.00                                        | 3,516.44  | 5,367.96                        | 2,631.25                                  | 2,299.82                                              | 10,299.05 | 0.00                                     | 40,131.30                                                           | 53,936.79  | 483.07    | 0.00   | 0.00                                                                | 483.07              |
| 1 ARANGUREN                            | 4,385              | 784                            | 483.09                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00      | 0.00                            | 0.00                                      | 0.00                                                  | 435.36    | 0.00                                     | 47.73                                                               | 0.00       | 0.00      | 0.00   | 0.00                                                                | 47.73               |
| 2 BUENO                                | 1,034              | 203                            | 14,283.25                                           | 65.48                                   | 656.79                                  | 0.00                                    | 369.68                                  | 0.00                                        | 1,091.95  | 0.90                            | 101.29                                    | 2,230.37                                              | 2,332.56  | 0.00                                     | 11,880.52                                                           | 15,205.03  | 0.00      | 0.00   | 0.00                                                                | 0.00                |
| 3 CUBCUB (POB.)                        | 2,611              | 469                            | 174.26                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00      | 174.26                          | 0.00                                      | 0.00                                                  | 174.26    | 0.00                                     | 0.00                                                                | 0.00       | 0.00      | 0.00   | 0.00                                                                | 0.00                |
| 4 CUTCUT 1ST                           | 5,660              | 980                            | 146.21                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00      | 146.21                          | 0.00                                      | 0.00                                                  | 146.21    | 0.00                                     | 0.00                                                                | 0.00       | 0.00      | 0.00   | 0.00                                                                | 0.00                |
| 5 CUTCUT 2ND                           | 3                  | 554                            | 96.82                                               | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00      | 96.82                           | 0.00                                      | 0.00                                                  | 96.82     | 0.00                                     | 0.00                                                                | 0.00       | 0.00      | 0.00   | 0.00                                                                | 0.00                |
| 6 DOLORES                              | 2,611              | 476                            | 541.00                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00      | 0.00                            | 4.37                                      | 0.00                                                  | 4.37      | 0.00                                     | 576.37                                                              | 541.00     | 0.00      | 0.00   | 0.00                                                                | 576.37              |
| 7 ESTRADA (CALINGUAN)                  | 1,532              | 230                            | 1,033.44                                            | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00      | 519.27                          | 0.00                                      | 0.00                                                  | 519.27    | 0.00                                     | 514.17                                                              | 1,033.44   | 0.00      | 0.00   | 0.00                                                                | 514.17              |
| 8 LAWY                                 | 5,350              | 928                            | 3,870.82                                            | 0.00                                    | 105.13                                  | 132.88                                  | 0.00                                    | 0.00                                        | 238.01    | 307.62                          | 320.66                                    | 0.00                                                  | 628.28    | 0.00                                     | 3,197.21                                                            | 4,063.90   | 0.00      | 0.00   | 0.00                                                                | 3,197.21            |
| 9 MANGA                                | 840                | 150                            | 644.25                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00      | 92.96                           | 1.16                                      | 0.00                                                  | 94.14     | 0.00                                     | 559.10                                                              | 644.25     | 0.00      | 0.00   | 0.00                                                                | 559.10              |
| 10 MANLAPIG                            | 1,386              | 235                            | 165.07                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00      | 0.00                            | 54.85                                     | 0.00                                                  | 54.85     | 0.00                                     | 110.22                                                              | 165.07     | 0.00      | 0.00   | 0.00                                                                | 110.22              |
| 11 MARUGLU                             | 1,084              | 201                            | 245.36                                              | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00      | 0.00                            | 184.52                                    | 0.00                                                  | 184.52    | 0.00                                     | 61.04                                                               | 245.36     | 0.00      | 0.00   | 0.00                                                                | 61.04               |
| 12 O'DONNELL                           | 10,723             | 1,823                          | 8,038.20                                            | 0.00                                    | 575.99                                  | 0.00                                    | 23.95                                   | 0.00                                        | 599.94    | 370.09                          | 385.75                                    | 61.27                                                 | 817.11    | 0.00                                     | 7,099.61                                                            | 8,496.66   | 0.00      | 0.00   | 0.00                                                                | 7,099.61            |
| 13 STA. JULIANA                        | 2,520              | 454                            | 6,016.01                                            | 0.00                                    | 130.00                                  | 0.00                                    | 0.00                                    | 0.00                                        | 130.00    | 356.88                          | 0.00                                      | 8.18                                                  | 365.01    | 0.00                                     | 5,650.63                                                            | 6,145.70   | 0.00      | 0.00   | 0.00                                                                | 5,650.63            |

**List of Barangays Affected/Threatened by Pinatubo Volcanic and Flood Hazards  
Based on May 5, 1994 Pinatubo Volcanic and Flood Hazards Map (6/7)  
(Areas in Hectares)**

| Province/City<br>Municipality/Barangay | 1990<br>Population | 1990<br>Number of<br>Household | Estimated<br>area of<br>barangay<br>based on<br>GIS | Estimated Affected/Threatened and Non-Threatened Areas |                                         |                                         |                                         |                                             |                                          |                                 |                                           |                                                       |              | prone to<br>regional<br>flooding<br>(3) | outside<br>volcanic<br>hazard area<br>& regional<br>flooding<br>(4) | (1)-(2)-(3)-(4)<br>(4) |           |
|----------------------------------------|--------------------|--------------------------------|-----------------------------------------------------|--------------------------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|---------------------------------------------|------------------------------------------|---------------------------------|-------------------------------------------|-------------------------------------------------------|--------------|-----------------------------------------|---------------------------------------------------------------------|------------------------|-----------|
|                                        |                    |                                |                                                     | Actual Affected Areas                                  |                                         |                                         |                                         |                                             | Areas Threatened due to Volcanic Hazards |                                 |                                           |                                                       |              |                                         |                                                                     |                        |           |
|                                        |                    |                                |                                                     | 1991<br>pyroclastic<br>flow<br>deposits                | covered<br>by 1991<br>lahar<br>deposits | additional<br>1992<br>lahar<br>deposits | additional<br>1993<br>lahar<br>deposits | lahar<br>dammed<br>lake/<br>ponded<br>water | Total<br>(1)                             | prone to<br>lahar<br>deposition | prone to<br>lahar-<br>induced<br>flooding | prone to<br>future<br>pyroclastic<br>flow<br>deposits | Total<br>(2) |                                         |                                                                     |                        |           |
| 14 STA. LUCIA                          | 6,182              | 998                            | 7,874.89                                            | 0.00                                                   | 946.08                                  | 8.47                                    | 205.85                                  | 0.00                                        | 0.00                                     | 1,200.40                        | 1,404.19                                  | 377.83                                                | 0.00         | 1,782.02                                | 0.00                                                                | 5,950.79               | 8,983.21  |
| 15 STA. RITA                           | 1,142              | 204                            | 612.46                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 0.00                            | 190.41                                    | 0.00                                                  | 0.00         | 190.41                                  | 0.00                                                                | 422.05                 | 612.46    |
| 16 STO. DOMINGO 1ST                    | 1,948              | 337                            | 2,592.25                                            | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 0.00                            | 249.09                                    | 10.15                                                 | 0.00         | 259.24                                  | 0.00                                                                | 0.00                   | 259.24    |
| 17 STO. DOMINGO 2ND                    | 4,016              | 691                            | 594.41                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 0.00                            | 39.99                                     | 388.86                                                | 0.00         | 428.85                                  | 0.00                                                                | 165.56                 | 594.41    |
| 18 STO. ROSARIO                        | 2,924              | 523                            | 4,102.01                                            | 0.00                                                   | 30.70                                   | 47.26                                   | 0.00                                    | 0.00                                        | 0.00                                     | 77.96                           | 348.15                                    | 203.86                                                | 0.00         | 552.01                                  | 0.00                                                                | 3,550.00               | 4,179.97  |
| 19 TALAGA                              | 2,090              | 347                            | 1,678.06                                            | 0.00                                                   | 139.35                                  | 38.80                                   | 0.00                                    | 0.00                                        | 0.00                                     | 178.15                          | 1,070.88                                  | 162.79                                                | 0.00         | 1,233.67                                | 0.00                                                                | 425.30                 | 1,837.12  |
| CONCEPCION                             | 101,146            | 17,092                         | 21,217.83                                           | 0.00                                                   | 5,077.37                                | 302.86                                  | 592.29                                  | 0.00                                        | 0.00                                     | 5,972.52                        | 9,649.49                                  | 6,307.09                                              | 0.00         | 15,956.58                               | 1,618.15                                                            | 5,361.22               | 28,808.47 |
| 1 ALFONSO                              | 4,740              | 797                            | 195.58                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 0.00                            | 116.39                                    | 50.12                                                 | 0.00         | 166.51                                  | 0.00                                                                | 29.07                  | 195.58    |
| 2 BALUTU                               | 2,943              | 495                            | 207.64                                              | 0.00                                                   | 194.24                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 194.94                          | 207.64                                    | 0.00                                                  | 0.00         | 207.64                                  | 0.00                                                                | 0.00                   | 402.58    |
| 3 CAPE                                 | 2,277              | 397                            | 804.71                                              | 0.00                                                   | 556.91                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 556.91                          | 218.66                                    | 586.05                                                | 0.00         | 804.71                                  | 0.00                                                                | 0.00                   | 1,361.62  |
| 4 CALUIS QUECO                         | 903                | 148                            | 57.88                                               | 0.00                                                   | 9.78                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 9.78                            | 48.99                                     | 8.89                                                  | 0.00         | 57.88                                   | 0.00                                                                | 0.00                   | 67.66     |
| 5 CALULUAN                             | 3,206              | 543                            | 290.08                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 0.00                            | 1.65                                      | 16.17                                                 | 0.00         | 17.82                                   | 0.00                                                                | 272.26                 | 290.08    |
| 6 CASTILLO                             | 2,155              | 352                            | 1,757.63                                            | 0.00                                                   | 765.56                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 765.56                          | 375.54                                    | 1,382.09                                              | 0.00         | 1,757.63                                | 661.61                                                              | 0.00                   | 3,184.80  |
| 7 CORAZON DE JESUS                     | 1,523              | 256                            | 296.61                                              | 0.00                                                   | 261.45                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 261.45                          | 84.99                                     | 207.94                                                | 0.00         | 292.97                                  | 0.00                                                                | 0.00                   | 296.61    |
| 8 CULATINGAN                           | 2,509              | 392                            | 632.97                                              | 0.00                                                   | 68.48                                   | 39.91                                   | 0.00                                    | 0.00                                        | 0.00                                     | 108.37                          | 765.38                                    | 0.00                                                  | 0.00         | 765.38                                  | 0.00                                                                | 0.00                   | 873.75    |
| 9 DUNGAN                               | 713                | 125                            | 765.28                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 0.00                            | 26.68                                     | 46.43                                                 | 0.00         | 73.11                                   | 0.00                                                                | 226.11                 | 299.22    |
| 10 DUTUNG-A-MATAS                      | 1,538              | 261                            | 299.23                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 0.00                            | 37.54                                     | 52.87                                                 | 0.00         | 90.41                                   | 0.00                                                                | 0.10                   | 90.51     |
| 11 GREEN VILLAGE                       | 1,611              | 271                            | 90.51                                               | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 0.00                            | 400.44                                    | 0.00                                                  | 0.00         | 400.44                                  | 0.00                                                                | 0.00                   | 746.76    |
| 12 LILIBANGAN                          | 785                | 127                            | 400.44                                              | 0.00                                                   | 366.32                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 366.32                          | 0.00                                      | 0.00                                                  | 0.00         | 366.32                                  | 0.00                                                                | 0.00                   | 796.36    |
| 13 MABLOO                              | 1,728              | 301                            | 796.36                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 0.00                            | 54.12                                     | 0.00                                                  | 0.00         | 54.12                                   | 0.00                                                                | 742.24                 | 796.36    |
| 14 MAGAO                               | 2,431              | 374                            | 891.58                                              | 0.00                                                   | 792.46                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 792.46                          | 202.45                                    | 689.12                                                | 0.00         | 891.57                                  | 0.00                                                                | 0.00                   | 2,010.59  |
| 15 MALLUPA                             | 1,463              | 230                            | 214.50                                              | 0.00                                                   | 122.72                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 122.72                          | 53.93                                     | 160.57                                                | 0.00         | 214.50                                  | 0.00                                                                | 0.00                   | 337.22    |
| 16 MINANE                              | 3,550              | 572                            | 281.95                                              | 0.00                                                   | 114.60                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 114.60                          | 281.95                                    | 0.00                                                  | 0.00         | 281.95                                  | 0.00                                                                | 0.00                   | 396.55    |
| 17 PANALICSICAN                        | 894                | 146                            | 957.97                                              | 0.00                                                   | 46.23                                   | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 46.23                           | 210.96                                    | 747.01                                                | 0.00         | 957.97                                  | 0.00                                                                | 0.00                   | 1,004.20  |
| 18 PANDO                               | 1,546              | 280                            | 520.69                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 0.00                            | 2.33                                      | 0.00                                                  | 0.00         | 2.33                                    | 0.00                                                                | 518.36                 | 520.69    |
| 19 PARANG                              | 2,152              | 394                            | 690.90                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 0.00                            | 115.49                                    | 0.00                                                  | 0.00         | 115.49                                  | 0.00                                                                | 575.41                 | 690.90    |
| 20 PARULUNG                            | 1,004              | 172                            | 286.91                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 0.00                            | 72.44                                     | 183.07                                                | 0.00         | 255.51                                  | 0.00                                                                | 31.40                  | 286.91    |
| 21 PITABUNAN                           | 1,152              | 181                            | 353.20                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 0.00                            | 68.99                                     | 4.75                                                  | 0.00         | 73.74                                   | 0.00                                                                | 279.45                 | 353.19    |
| 22 SAN AGUSTIN (MURCIA)                | 3,218              | 536                            | 1,189.53                                            | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 0.00                            | 297.52                                    | 0.00                                                  | 0.00         | 297.52                                  | 0.00                                                                | 892.01                 | 1,189.53  |
| 23 SAN ANTONIO                         | 1,998              | 329                            | 454.51                                              | 0.00                                                   | 164.02                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 164.02                          | 454.51                                    | 0.00                                                  | 0.00         | 454.51                                  | 0.00                                                                | 0.00                   | 618.51    |
| 24 SAN BARTOLOME                       | 1,634              | 261                            | 501.43                                              | 0.00                                                   | 9.36                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00                                     | 9.36                            | 501.43                                    | 0.00                                                  | 0.00         | 501.43                                  | 0.00                                                                | 0.00                   | 618.51    |
| 25 SAN FRANCISCO                       | 4,374              | 718                            | 305.91                                              | 0.00                                                   | 7.68                                    | 49.14                                   | 0.00                                    | 0.00                                        | 0.00                                     | 56.82                           | 305.91                                    | 0.00                                                  | 0.00         | 305.91                                  | 0.00                                                                | 0.00                   | 510.79    |

**List of Barangays Affected/Threatened by Pinatubo Volcanic and Flood Hazards  
Based on May 5, 1994 Pinatubo Volcanic and Flood Hazards Map (7/7)  
(Areas in Hectares)**

| Province/City<br>Municipality/Barangay | 1990<br>Population | 1990<br>Number of<br>Household | Estimated<br>area of<br>barangay<br>based on<br>GIS | Estimated Affected Threatened and Non-Threatened Areas |                                         |                                         |                                         |                                             |              |                                 |                                           |                                                       |       | Total<br>(2) | prone to<br>regional<br>flooding<br>(3) | outside<br>volcanic<br>hazard area<br>& regional<br>flooding<br>(4) | (1)+(2)+(3)+<br>(4) |          |
|----------------------------------------|--------------------|--------------------------------|-----------------------------------------------------|--------------------------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|---------------------------------------------|--------------|---------------------------------|-------------------------------------------|-------------------------------------------------------|-------|--------------|-----------------------------------------|---------------------------------------------------------------------|---------------------|----------|
|                                        |                    |                                |                                                     | Actual Affected Areas                                  |                                         |                                         |                                         | Areas Threatened due to Volcanic Hazards    |              |                                 |                                           |                                                       |       |              |                                         |                                                                     |                     |          |
|                                        |                    |                                |                                                     | 1991<br>pyroclastic<br>flow<br>deposits                | covered<br>by 1991<br>lahar<br>deposits | additional<br>1992<br>lahar<br>deposits | additional<br>1993<br>lahar<br>deposits | lahar<br>dammed<br>lake/<br>ponded<br>water | Total<br>(1) | prone to<br>lahar<br>deposition | prone to<br>lahar-<br>induced<br>flooding | prone to<br>future<br>pyroclastic<br>flow<br>deposits | Total |              |                                         |                                                                     |                     |          |
| 26 SAN INDRIO (ALMENDRAS)              | 2,139              | 347                            | 779.47                                              | 0.00                                                   | 11.70                                   | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 773.29                          | 6.18                                      | 0.00                                                  | 0.00  | 0.00         | 779.47                                  | 0.00                                                                | 0.00                | 791.17   |
| 27 SAN JOSE (POB.)                     | 7,591              | 1,267                          | 67.40                                               | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 20.14                           | 47.26                                     | 0.00                                                  | 0.00  | 0.00         | 67.40                                   | 0.00                                                                | 0.00                | 67.40    |
| 28 SAN JUAN (CASTRO)                   | 1,986              | 323                            | 266.06                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 18.16                           | 0.00                                      | 0.00                                                  | 0.00  | 0.00         | 18.16                                   | 0.00                                                                | 0.00                | 266.06   |
| 29 SAN MARTIN                          | 1,220              | 174                            | 365.85                                              | 0.00                                                   | 360.48                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 360.48                          | 0.61                                      | 0.00                                                  | 0.00  | 0.00         | 365.85                                  | 0.00                                                                | 0.00                | 366.33   |
| 30 SAN NICOLAS (POB.)                  | 3,891              | 700                            | 99.14                                               | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 79.27                           | 17.74                                     | 0.00                                                  | 0.00  | 0.00         | 97.01                                   | 0.00                                                                | 2.13                | 99.14    |
| 31 SAN NICOLAS BALAS                   | 2,046              | 328                            | 607.76                                              | 0.00                                                   | 172.48                                  | 0.00                                    | 140.83                                  | 0.00                                        | 0.00         | 607.76                          | 0.00                                      | 0.00                                                  | 0.00  | 0.00         | 607.76                                  | 0.00                                                                | 0.00                | 871.07   |
| 32 SAN VICENTE                         | 1,049              | 164                            | 326.27                                              | 0.00                                                   | 280.92                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 326.27                          | 0.00                                      | 0.00                                                  | 0.00  | 0.00         | 326.27                                  | 0.00                                                                | 0.00                | 607.19   |
| 33 SANTIAGO                            | 3,113              | 484                            | 292.61                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 136.84                          | 125.97                                    | 0.00                                                  | 0.00  | 0.00         | 262.81                                  | 0.00                                                                | 29.89               | 292.61   |
| 34 STA. CRUZ                           | 3,309              | 531                            | 386.24                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                            | 386.24                                    | 0.00                                                  | 0.00  | 0.00         | 386.24                                  | 0.00                                                                | 0.00                | 386.24   |
| 35 STA. MARIA                          | 649                | 109                            | 53.81                                               | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 48.69                           | 0.00                                      | 0.00                                                  | 0.00  | 0.00         | 48.69                                   | 0.00                                                                | 5.12                | 53.81    |
| 36 STA. MONICA                         | 4,231              | 688                            | 713.26                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 218.83                          | 481.93                                    | 0.00                                                  | 0.00  | 0.00         | 700.76                                  | 364.37                                                              | 12.50               | 1,077.63 |
| 37 STA. RITA                           | 4,885              | 876                            | 308.54                                              | 0.00                                                   | 276.75                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 303.87                          | 4.67                                      | 0.00                                                  | 0.00  | 0.00         | 308.54                                  | 0.00                                                                | 0.00                | 308.54   |
| 38 STA. ROSA                           | 3,012              | 502                            | 334.53                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 86.14                           | 0.00                                      | 0.00                                                  | 0.00  | 0.00         | 86.14                                   | 0.00                                                                | 248.39              | 334.53   |
| 39 STO. CRISTO                         | 879                | 141                            | 53.87                                               | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.20                            | 53.87                                     | 0.00                                                  | 0.00  | 0.00         | 53.87                                   | 0.00                                                                | 0.00                | 53.87    |
| 40 STO. NINO                           | 1,766              | 295                            | 420.56                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 36.90                           | 0.00                                      | 0.00                                                  | 0.00  | 0.00         | 36.90                                   | 0.00                                                                | 383.66              | 420.56   |
| 41 STO. ROSARIO (MAGUNTING)            | 1,269              | 195                            | 97.36                                               | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 0.00                            | 97.36                                     | 0.00                                                  | 0.00  | 0.00         | 97.36                                   | 0.00                                                                | 0.00                | 97.36    |
| 42 TALUNDUC MARINLA                    | 1,112              | 170                            | 405.95                                              | 0.00                                                   | 325.03                                  | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 389.42                          | 16.53                                     | 0.00                                                  | 0.00  | 0.00         | 405.95                                  | 0.00                                                                | 0.00                | 730.96   |
| 43 TALUNDUC SAN MIGUEL                 | 1,713              | 284                            | 544.13                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 74.44                           | 409.91                                    | 0.00                                                  | 0.00  | 0.00         | 484.35                                  | 0.00                                                                | 59.78               | 544.13   |
| 44 TELARANCA                           | 2,349              | 350                            | 932.29                                              | 0.00                                                   | 219.52                                  | 213.81                                  | 451.46                                  | 0.00                                        | 0.00         | 932.29                          | 0.00                                      | 0.00                                                  | 0.00  | 0.00         | 932.29                                  | 0.00                                                                | 0.00                | 1,817.08 |
| 45 TINANG                              | 2,989              | 497                            | 928.61                                              | 0.00                                                   | 0.00                                    | 0.00                                    | 0.00                                    | 0.00                                        | 0.00         | 226.78                          | 0.00                                      | 0.00                                                  | 0.00  | 0.00         | 226.78                                  | 0.00                                                                | 701.83              | 928.61   |

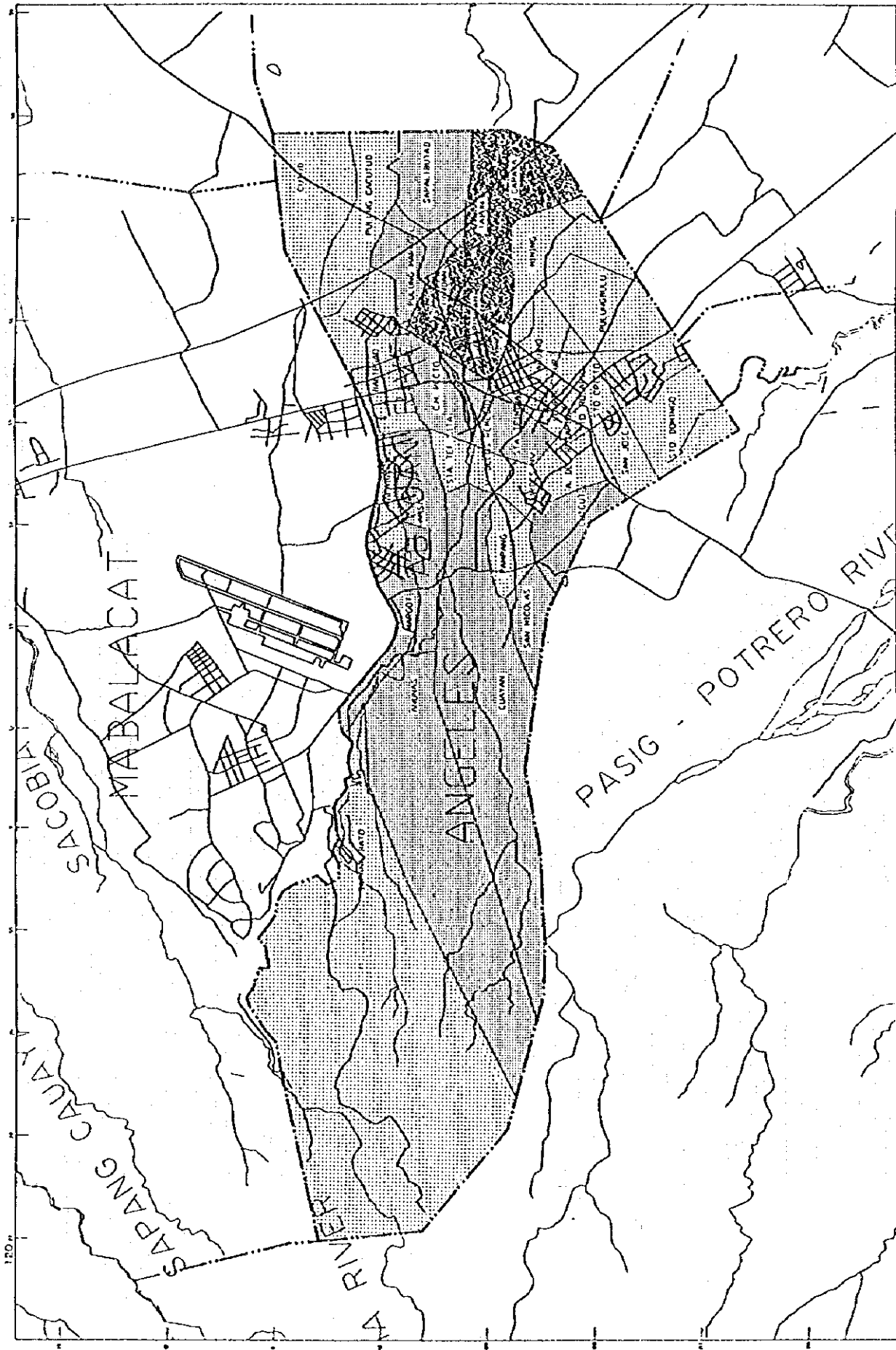


FIGURE NO. \_\_\_\_\_

**BARANGAYS CLASSIFIED BY THREATENED, AFFECTED & UNAFFECTED OCTOBER 1994**  
ANGELES CITY

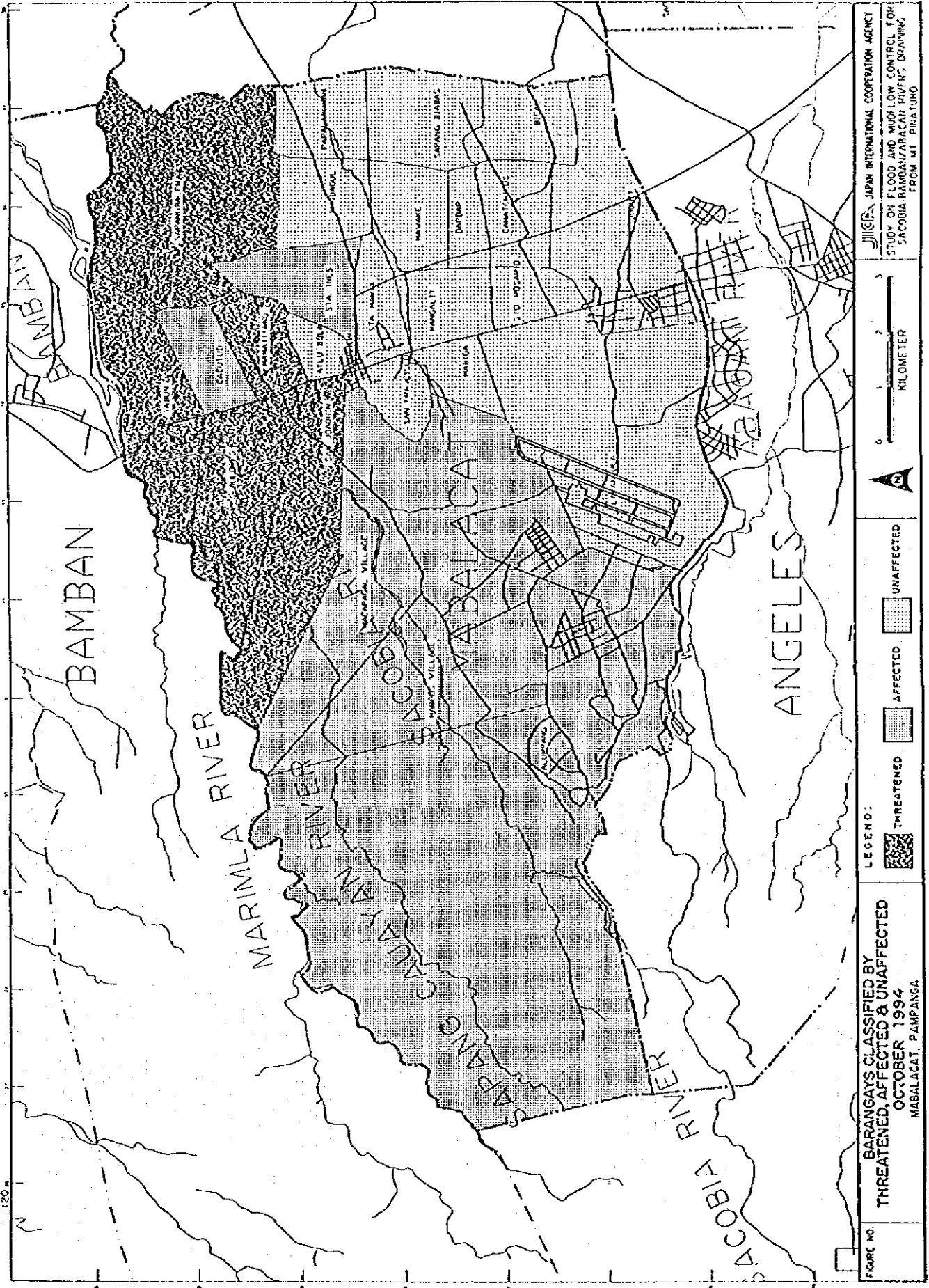
**LEGEND:**

- THREATENED
- AFFECTED
- UNAFFECTED

**0 1 2 3**  
KILOMETER

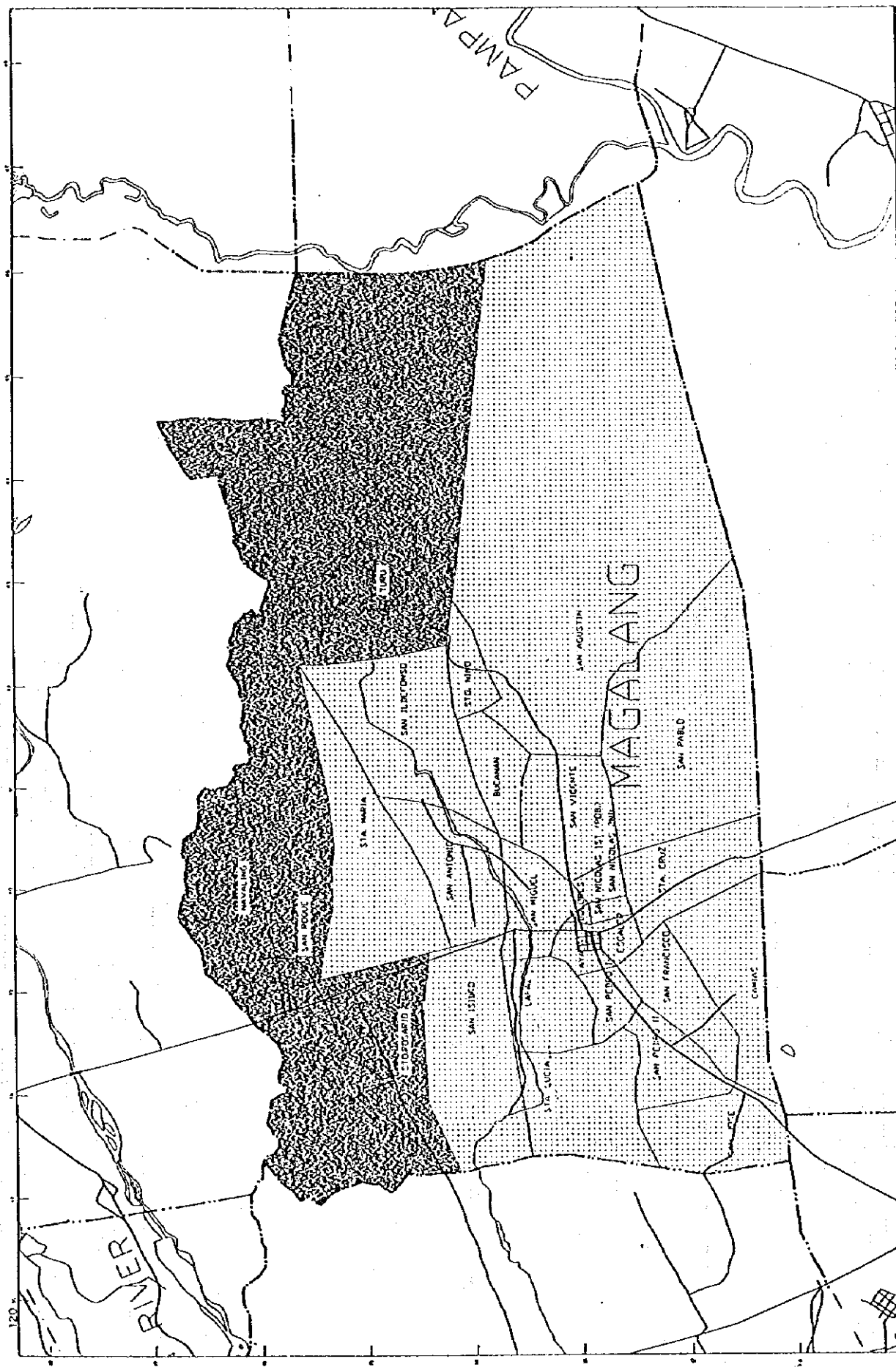
**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY  
STUDY ON FLOOD AND MIDDLOW CHANNEL FOR SACOBIA-RAMBAH/ZARACAN RIVERS, CAGAYAN FROM MI (PHILIPPINES)



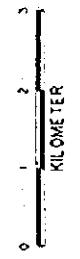




REFERENCE NO.



JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 STUDY ON FLOOD AND WATERSHED CONTROL FOR  
 SACOBIA-BAMRAN/SABAKAN RIVER BASIN  
 FROM MT. PINATUBO



LEGEND:

- THREATENED
- AFFECTED
- UNAFFECTED

BARANGAYS CLASSIFIED BY  
 THREATENED, AFFECTED & UNAFFECTED  
 OCTOBER 1994  
 MAGALANG, PAMPANGA

FIGURE NO

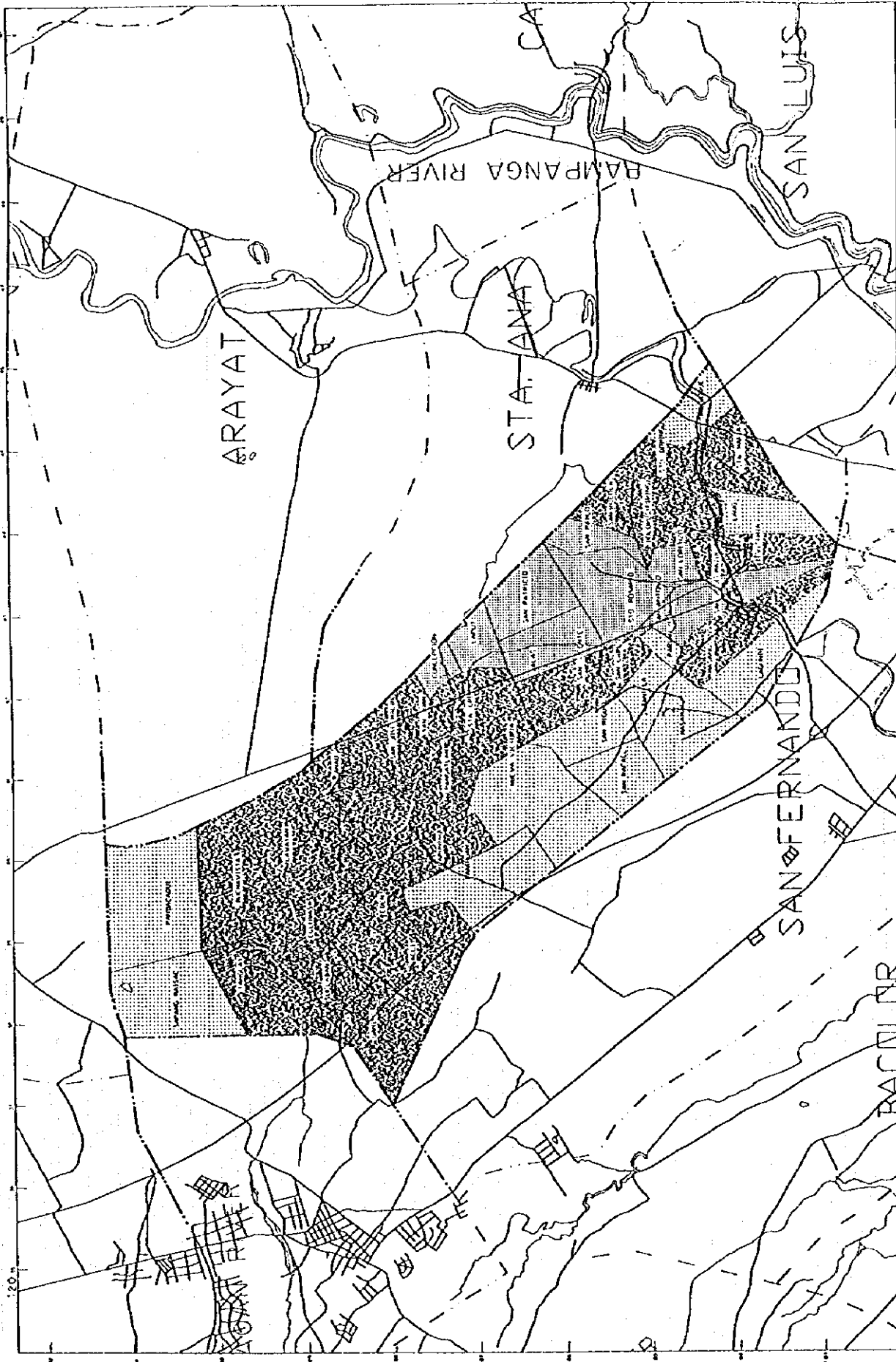


FIGURE NO

**BARANGAYS CLASSIFIED BY THREATENED, AFFECTED & UNAFFECTED OCTOBER 1994**  
MEXICO, PAMPANGA

LEGEND:

- THREATENED
- AFFECTED
- UNAFFECTED

0 1 2 3  
KILOMETER

JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
STUDY ON FLOOD AND WIND LOW CONTROL FOR SACOBIA-BAMPANGA RIVER, CHAIRING FROM 41 PHILIPPINES





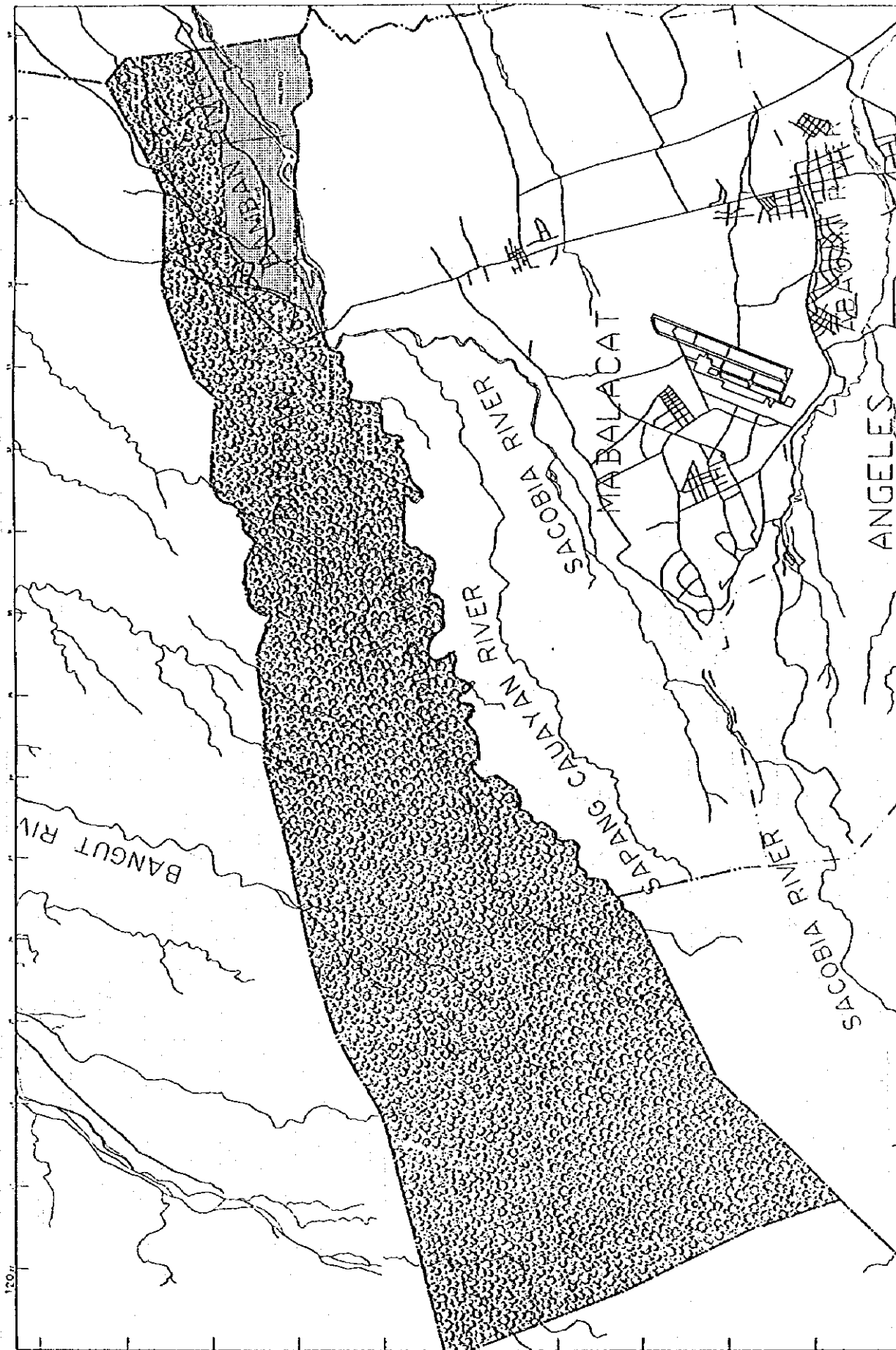





FIGURE NO. \_\_\_\_\_

**BARANGAYS CLASSIFIED BY THREATENED, AFFECTED & UNAFFECTED OCTOBER 1994**  
BAMBAN, TARLAC

LEGEND:

-  THREATENED
-  AFFECTED
-  UNAFFECTED

0 1 2 3  
KILOMETER

JICA/JICA INTERNATIONAL COOPERATION AGENCY  
STUDY ON FLOOD AND MIDFLOW CONTROL FOR SACOBIA-RAMBAN/ANGELAS RIVERS DRAINAGE FROM MT. PANTURO



REFERENCE NO.

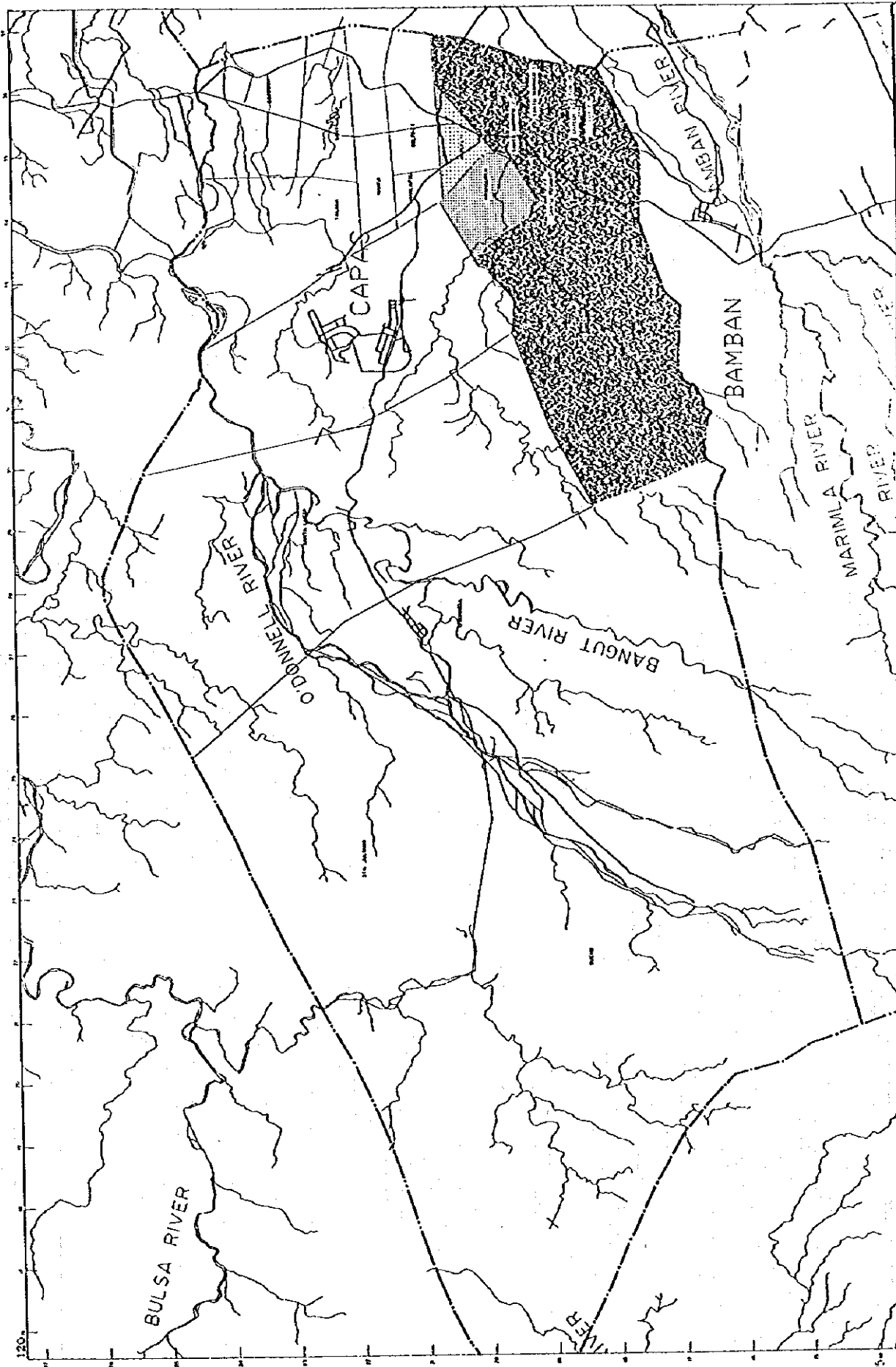


FIGURE NO. 1

**BARANGAYS CLASSIFIED BY THREATENED, AFFECTED & UNAFFECTED OCTOBER 1994**  
CAPAS, TARLAC

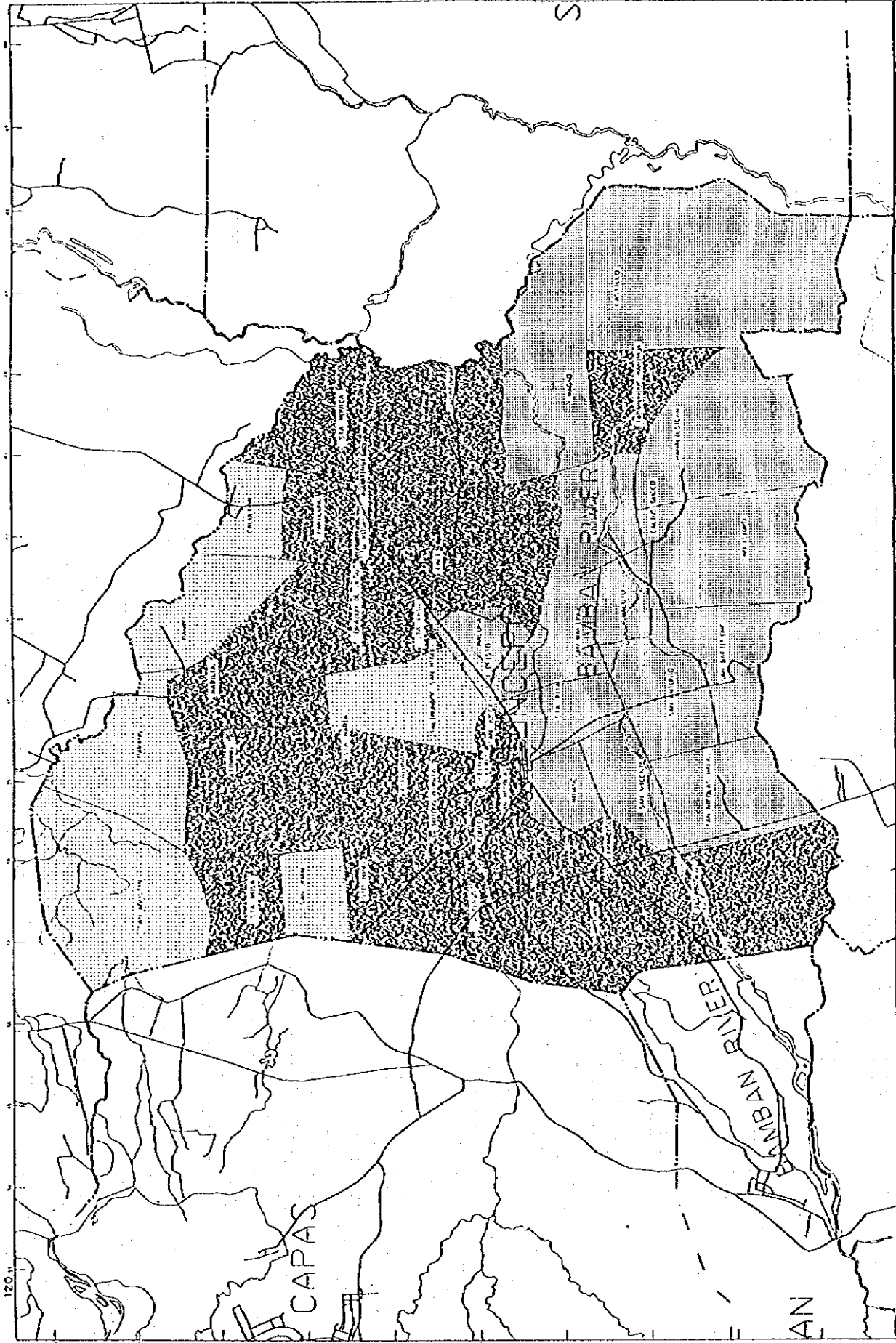
LEGEND:

- THREATENED
- AFFECTED
- UNAFFECTED

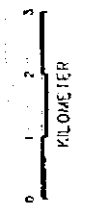
0 1 2 3  
KILOMETER

JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
STUDY ON FLOOD AND WATERSHED CONTROL FOR SACOGRA-BAMBAN/SIBACAN RIVERS, BAWANG FROM MT. DIATUBO

REFERENCE NO.



JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 STUDY ON FLOOD AND MUDFLOW CONTROL FOR  
 SACOGRA-RAMPAZARASAN RIVERS DRAINING  
 FROM MT. PINATUBO



- LEGEND:
- THREATENED
  - AFFECTED
  - UNAFFECTED

BARANGAYS CLASSIFIED BY  
 THREATENED, AFFECTED & UNAFFECTED  
 OCTOBER 1994  
 CONCEPCION, TARLAC

FIGURE NO.

---

*PART II*

*POPULATION DATA*

---



**Total Population, Annual Growth Rate, Number of Households and Average Household Size 1980, 1990, 1994 (1/9)**

| Province/Municipality/<br>Barangay | Population |         | Annual Growth Rate |         | Households |         | Average<br>H'Hold<br>Size<br>1994 |
|------------------------------------|------------|---------|--------------------|---------|------------|---------|-----------------------------------|
|                                    | 1980       | 1994    | 80-90              | 90-94   | 1980       | 1994    |                                   |
| <b>PAMPANGA and TARLAC</b>         |            |         |                    |         |            |         |                                   |
| Threatened barangays               | 555,692    | 727,794 | 2.70%              | -1.74%  | 137,321    | 132,898 | 5.11                              |
| Affected barangays                 | 172,097    | 213,719 | 2.17%              | -4.35%  | 40,324     | 33,758  | 5.32                              |
| Unaffected barangays               | 96,836     | 129,438 | 2.90%              | -1.10%  | 24,423     | 23,820  | 5.20                              |
|                                    | 286,759    | 384,637 | 2.94%              | -0.61%  | 72,573     | 75,320  | 4.98                              |
| <b>PAMPANGA PROVINCE</b>           |            |         |                    |         |            |         |                                   |
| Threatened Barangays               | 436,500    | 571,680 | 2.70%              | -1.41%  | 107,865    | 106,247 | 5.09                              |
| Affected Barangays                 | 95,919     | 113,694 | 1.70%              | -2.98%  | 21,452     | 18,327  | 5.51                              |
| Unaffected Barangays               | 61,334     | 83,763  | 3.12%              | -1.79%  | 15,805     | 15,160  | 5.14                              |
|                                    | 279,247    | 374,223 | 2.93%              | -0.87%  | 70,609     | 72,760  | 4.97                              |
| <b>Angeles City</b>                | 188,834    | 236,685 | 2.26%              | -3.00%  | 44,658     | 44,161  | 4.75                              |
| <b>Threatened</b>                  |            |         |                    |         |            |         |                                   |
| Capaya                             | 22,568     | 20,121  | -1.15%             | -2.03%  | 3,796      | 3,661   | 5.07                              |
| Pandan                             | 2,475      | 4,095   | 5.74%              | -1.75%  | 829        | 815     | 5.02                              |
| Salapungan                         | 13,301     | 7,992   | -5.64%             | 1.37%   | 1,427      | 1,590   | 5.03                              |
| Tabun                              | 6,104      | 5,122   | 0.86%              | -6.52%  | 1,255      | 998     | 5.13                              |
|                                    | 588        | 1,341   | 7.89%              | -3.05%  | 286        | 258     | 5.20                              |
| <b>Affected</b>                    |            |         |                    |         |            |         |                                   |
| Anunas                             | 41,971     | 57,725  | 3.19%              | -1.80%  | 10,892     | 10,640  | 5.05                              |
| Claro M. Recto                     | 3,424      | 5,939   | 5.51%              | 0.99%   | 1,121      | 1,100   | 5.62                              |
| Cutcut                             | 7,794      | 6,453   | -1.77%             | -0.92%  | 1,218      | 1,220   | 5.10                              |
| Margot                             | 315        | 920     | 10.72%             | 4.01%   | 174        | 200     | 5.40                              |
| Pulang Maragul                     | 12,710     | 17,453  | 3.17%              | -1.34%  | 3,293      | 3,260   | 5.07                              |
| San Nicolas                        | 1,653      | 2,452   | 3.94%              | -2.48%  | 463        | 460     | 4.83                              |
| Sapalibud                          | 4,103      | 8,649   | 7.46%              | -1.58%  | 1,632      | 1,660   | 4.89                              |
| Amsic                              | 4,379      | 3,532   | -2.15%             | -22.78% | 666        | 380     | 3.74                              |
|                                    | 5,552      | 5,887   | 0.59%              | -1.88%  | 1,111      | 1,100   | 4.96                              |
|                                    | 2,131      | 2,812   | 2.77%              | 0.77%   | 531        | 540     | 5.37                              |
|                                    | 0          | 3,628   | -0.33%             | -0.33%  | 685        | 720     | 4.97                              |

**NOTE:** The 1994 population and households of affected and unaffected barangays were estimated based on 5% sampling survey of households. The 1980 and 1990 population were based on the National Statistics Office (NSO) census on population and housing.

Threatened barangays refer to barangays listed as "affected barangays" in tender document. Affected barangays refer to barangays listed by PHILVOLCS as affected by 1991-1993 pyroclastic flow, lahar deposits, and lahar dammed lake/ponded water. These were originally listed as "unaffected barangays" in tender documents. Unaffected barangays refer to barangays listed as "unaffected barangays" in tender documents.

Total Population, Annual Growth Rate, Number of Households and Average Household Size 1980, 190, 1994 (2/9)

| Province/Municipality/<br>Barangay | Population |         |         | Annual Growth Rate |        | Households |        | Annual Average H'Hold Size |      |
|------------------------------------|------------|---------|---------|--------------------|--------|------------|--------|----------------------------|------|
|                                    | 1980       | 1990    | 1994    | 80-90              | 90-94  | 1990       | 1994   | 90-94                      | 1994 |
| <i>Unaffected</i>                  | 124,295    | 158,839 | 137,680 | 2.45%              | -3.57% | 29,970     | 29,860 | -0.09%                     | 4.61 |
| Agapito del Rosario                | 4,687      | 3,894   | 2,840   | -1.85%             | -7.89% | 735        | 760    | 0.84%                      | 3.74 |
| Bailbago                           | 24,328     | 29,791  | 27,880  | 2.03%              | -1.66% | 5,621      | 5,600  | -0.09%                     | 4.98 |
| Cutud                              | 838        | 1,290   | 1,300   | 4.31%              | 0.19%  | 243        | 240    | -0.35%                     | 5.42 |
| Lourdes Northwest                  | 11,361     | 11,534  | 11,980  | 0.15%              | 0.95%  | 2,176      | 2,620  | 4.64%                      | 4.57 |
| Lourdes Sur                        | 7,589      | 6,519   | 5,800   | -1.52%             | -2.92% | 1,230      | 1,240  | 0.20%                      | 4.68 |
| Lourdes Sur East                   | 7,494      | 6,549   | 5,660   | -1.35%             | -3.65% | 1,236      | 1,200  | -0.73%                     | 4.72 |
| Malabonias                         | 9,972      | 16,050  | 12,140  | 4.76%              | -6.98% | 3,028      | 2,620  | -3.62%                     | 4.63 |
| Mining                             | 779        | 1,122   | 780     | 3.65%              | -0.09% | 212        | 200    | -1.42%                     | 3.90 |
| Pampang                            | 2,848      | 5,727   | 4,920   | 6.99%              | -3.80% | 1,081      | 1,080  | -0.01%                     | 4.56 |
| Pulungbulu                         | 7,463      | 10,295  | 9,300   | 3.22%              | -2.54% | 1,942      | 2,000  | 0.73%                      | 4.65 |
| Pulungcacutud                      | 1,070      | 1,681   | 1,440   | 4.52%              | -3.87% | 317        | 320    | 0.22%                      | 4.50 |
| San Jose                           | 6,398      | 6,940   | 6,420   | 0.81%              | -1.95% | 1,309      | 1,300  | -0.18%                     | 4.94 |
| Santa Teresita                     | 10,795     | 11,690  | 9,360   | 0.80%              | -5.56% | 2,206      | 2,200  | -0.06%                     | 4.25 |
| Santo Cristo                       | 2,793      | 3,857   | 3,140   | 3.23%              | -5.14% | 728        | 720    | -0.27%                     | 4.36 |
| Santo Domingo                      | 12,595     | 14,869  | 11,560  | 1.66%              | -6.29% | 2,805      | 2,660  | -1.33%                     | 4.35 |
| Santo Rosario (Pop.)               | 3,930      | 4,105   | 4,000   | 0.44%              | -0.65% | 775        | 820    | 1.43%                      | 4.88 |
| Sapangbato                         | 7,430      | 9,477   | 8,200   | 2.43%              | -3.62% | 1,788      | 1,780  | -0.11%                     | 4.61 |
| Virgen de los Remedios             | 1,925      | 1,551   | 1,260   | -2.16%             | -5.19% | 293        | 300    | 0.62%                      | 4.20 |
| Ninoy Aquino (Marisol)             | 0          | 11,898  | 9,700   |                    | -5.11% | 2,245      | 2,200  | -0.51%                     | 4.41 |
| Arayat                             | 56,692     | 73,189  | 77,480  | 2.55%              | 1.42%  | 13,809     | 13,875 | 0.12%                      | 5.58 |
| <i>Threatened</i>                  | 19,270     | 24,669  | 24,720  | 2.50%              | 0.05%  | 4,655      | 4,458  | -1.08%                     | 5.55 |
| Batasan                            | 1,122      | 1,422   | 1,613   | 2.37%              | 3.15%  | 268        | 284    | 1.42%                      | 5.68 |
| Candating                          | 2,200      | 3,052   | 3,432   | 3.27%              | 2.93%  | 576        | 625    | 2.05%                      | 5.49 |
| Laquious                           | 1,267      | 1,713   | 1,781   | 3.02%              | 0.97%  | 323        | 319    | -0.33%                     | 5.58 |
| Mapalad                            | 1,648      | 2,099   | 2,001   | 2.42%              | -1.20% | 396        | 337    | -4.04%                     | 5.94 |
| Poblacion                          | 2,487      | 2,917   | 1,984   | 1.59%              | -9.64% | 550        | 402    | -7.85%                     | 4.94 |
| San Agustin Sur                    | 928        | 1,082   | 1,079   | 1.54%              | -0.07% | 204        | 210    | 0.71%                      | 5.14 |
| San Mateo                          | 2,659      | 3,478   | 3,550   | 2.69%              | 0.51%  | 656        | 615    | -1.62%                     | 5.77 |
| Santa Lucia Cupang                 | 1,505      | 2,078   | 2,165   | 3.23%              | 1.03%  | 392        | 386    | -0.39%                     | 5.61 |
| Santa Lucia Matamo                 | 1,624      | 1,917   | 1,698   | 1.66%              | -3.03% | 362        | 311    | -3.78%                     | 5.46 |
| Santo Nino Tabuan                  | 1,082      | 1,693   | 1,689   | 4.48%              | -0.06% | 319        | 310    | -0.75%                     | 5.45 |
| Suclayin                           | 1,360      | 1,773   | 1,941   | 2.65%              | 2.26%  | 335        | 333    | -0.11%                     | 5.83 |
| Tetapayung                         | 1,328      | 1,445   | 1,787   | 0.84%              | 5.31%  | 273        | 326    | 4.47%                      | 5.48 |



**Total Population, Annual Growth Rate, Number of Households and Average Household Size 1980, 190, 1994 (3/9)**

| Province/Municipality/<br>Barangay | Population |         | Annual Growth<br>Rate |         | Households |        | Annual Growth<br>Rate |       | Average<br>H'Hold<br>Size |      |
|------------------------------------|------------|---------|-----------------------|---------|------------|--------|-----------------------|-------|---------------------------|------|
|                                    | 1980       | 1990    | 80-90                 | 90-94   | 1990       | 1994   | 80-90                 | 90-94 | 90-94                     | 1994 |
| <b>Unaffected</b>                  | 37,482     | 48,520  | 2.58%                 | 2.09%   | 9,155      | 9,420  | 0.71%                 |       | 5.60                      |      |
| Arenas                             | 1,599      | 1,901   | 1.73%                 | 7.05%   | 359        | 400    | 2.70%                 |       | 6.30                      |      |
| Baliti                             | 1,011      | 1,294   | 2.47%                 | -1.47%  | 244        | 240    | -0.41%                |       | 5.08                      |      |
| Buensuceso                         | 434        | 747     | 5.43%                 | -9.06%  | 141        | 100    | -8.58%                |       | 5.20                      |      |
| Gatiawin                           | 2,101      | 3,124   | 3.97%                 | 4.23%   | 589        | 580    | -0.40%                |       | 6.38                      |      |
| Guemasan                           | 1,964      | 2,501   | 2.42%                 | 4.71%   | 472        | 580    | 5.16%                 |       | 5.21                      |      |
| La Paz (Turu)                      | 345        | 420     | 1.97%                 | 8.07%   | 79         | 100    | 5.82%                 |       | 5.80                      |      |
| Lacmit                             | 2,521      | 3,367   | 2.89%                 | 0.54%   | 635        | 620    | -0.61%                |       | 5.55                      |      |
| Manga-Cacutud                      | 5,141      | 6,475   | 2.31%                 | 7.78%   | 1,222      | 1,780  | 9.41%                 |       | 4.97                      |      |
| Paniniang                          | 1,072      | 1,491   | 3.30%                 | 2.07%   | 281        | 280    | -0.12%                |       | 5.79                      |      |
| Paralaya                           | 1,488      | 1,427   | -0.42%                | -10.97% | 269        | 220    | -5.05%                |       | 4.18                      |      |
| Plazang Luma                       | 3,054      | 3,847   | 2.31%                 | 5.32%   | 726        | 780    | 1.80%                 |       | 6.10                      |      |
| San Agustin Norte                  | 1,704      | 2,333   | 3.14%                 | 5.09%   | 440        | 440    | -0.01%                |       | 6.50                      |      |
| San Antonio                        | 1,450      | 1,722   | 1.72%                 | 2.46%   | 325        | 340    | 1.14%                 |       | 5.59                      |      |
| San Jose Mesulo                    | 2,790      | 3,511   | 2.30%                 | 1.45%   | 662        | 660    | -0.09%                |       | 5.64                      |      |
| San Juan Bano                      | 3,381      | 4,459   | 2.77%                 | 1.10%   | 841        | 840    | -0.04%                |       | 5.55                      |      |
| San Nicolas                        | 3,536      | 4,702   | 2.85%                 | -17.45% | 887        | 480    | -15.36%               |       | 4.88                      |      |
| San Roque (Bitas)                  | 1,923      | 2,555   | 2.84%                 | 5.78%   | 482        | 480    | -0.11%                |       | 6.71                      |      |
| Katedian (Camba)                   | 1,968      | 2,920   | 2.95%                 | 2.48%   | 499        | 500    | 0.06%                 |       | 5.84                      |      |
| <b>Mabalacat</b>                   | 78,235     | 117,336 | 4.05%                 | -2.69%  | 22,139     | 21,604 | -0.38%                |       | 4.83                      |      |
| <b>Threatened</b>                  | 12,159     | 14,759  | 1.94%                 | -22.72% | 2,785      | 1,184  | -21.38%               |       | 5.02                      |      |
| Dolores                            | 6,466      | 8,218   | 2.40%                 | -86.72% | 1,551      | 49     | -86.36%               |       | 5.22                      |      |
| Mamatitang                         | 1,445      | 1,662   | 1.40%                 | -6.32%  | 314        | 233    | -7.43%                |       | 5.54                      |      |
| San Joaquin                        | 4,248      | 4,879   | 1.38%                 | -2.57%  | 921        | 902    | -0.51%                |       | 4.88                      |      |
| <b>Affected</b>                    | 6,388      | 9,288   | 3.74%                 | -12.47% | 1,752      | 1,220  | -9.05%                |       | 4.62                      |      |
| Cacutud                            | 1,118      | 1,563   | 3.35%                 | -15.52% | 295        | 200    | -9.71%                |       | 4.20                      |      |
| Macepagal Village                  | 808        | 1,215   | 4.08%                 | -13.08% | 229        | 140    | -12.33%               |       | 5.14                      |      |
| Marcos Village                     | 1,199      | 2,031   | 5.27%                 | -35.04% | 383        | 100    | -33.59%               |       | 5.00                      |      |
| Santa Ines                         | 3,263      | 4,479   | 3.17%                 | -5.60%  | 845        | 780    | -2.00%                |       | 4.59                      |      |
| <b>Unaffected</b>                  | 59,688     | 93,289  | 4.47%                 | 0.13%   | 17,602     | 19,400 | 2.43%                 |       | 4.83                      |      |
| Atlu Bola                          | 354        | 549     | 4.39%                 | 16.45%  | 104        | 200    | 16.45%                |       | 5.30                      |      |
| Bical                              | 840        | 1,281   | 4.22%                 | 15.49%  | 242        | 480    | 17.15%                |       | 4.96                      |      |
| Bundagui                           | 457        | 987     | 7.70%                 | -17.00% | 186        | 100    | -15.54%               |       | 5.00                      |      |
| Camatchilles                       | 785        | 2,915   | 13.12%                | 0.04%   | 550        | 600    | 2.18%                 |       | 4.87                      |      |

Total Population, Annual Growth Rate, Number of Households and Average Household Size 1980, 190, 1994 (4/9)

| Province/Municipality/<br>Barangay | Population    |               | Annual Growth<br>Rate |              | Households   |              | Annual Growth<br>Rate |              | Average<br>H'Hold<br>Size<br>1994 |
|------------------------------------|---------------|---------------|-----------------------|--------------|--------------|--------------|-----------------------|--------------|-----------------------------------|
|                                    | 1980          | 1990          | 80-90                 | 90-94        | 1990         | 1994         | 80-90                 | 90-94        |                                   |
| Dapdap                             | 425           | 572           | 2.97%                 | -3.36%       | 108          | 120          | 2.97%                 | -3.36%       | 2.65%                             |
| Dau                                | 33,152        | 47,180        | 3.53%                 | 0.92%        | 8,902        | 10,360       | 3.53%                 | 0.92%        | 3.79%                             |
| Duquit                             | 1,231         | 4,080         | 11.98%                | -18.59%      | 770          | 420          | 11.98%                | -18.59%      | -15.15%                           |
| Lakandula                          | 3,454         | 8,620         | 6.36%                 | 6.96%        | 1,231        | 1,700        | 6.36%                 | 6.96%        | 8.07%                             |
| Mabiga                             | 3,708         | 10,985        | 10.86%                | -3.42%       | 2,073        | 1,940        | 10.86%                | -3.42%       | -1.65%                            |
| Mangalit                           | 530           | 649           | 2.03%                 | -1.14%       | 122          | 100          | 2.03%                 | -1.14%       | -5.06%                            |
| Mawake                             | 431           | 549           | 2.42%                 | -1.36%       | 104          | 80           | 2.42%                 | -1.36%       | -6.46%                            |
| Paralayunan                        | 512           | 676           | 2.78%                 | -6.56%       | 128          | 100          | 2.78%                 | -6.56%       | -6.08%                            |
| Poblacion                          | 2,526         | 1,840         | 0.10%                 | -8.18%       | 482          | 300          | 0.10%                 | -8.18%       | -11.83%                           |
| San Francisco                      | 8,596         | 10,432        | 1.94%                 | -2.93%       | 1,968        | 2,020        | 1.94%                 | -2.93%       | 0.65%                             |
| Santa Maria                        | 372           | 520           | 3.35%                 | 25.11%       | 98           | 280          | 3.35%                 | 25.11%       | 26.22%                            |
| Santo Rosario                      | 2,015         | 2,268         | 1.18%                 | -2.16%       | 428          | 400          | 1.18%                 | -2.16%       | -1.69%                            |
| Sapang Biabas                      | 300           | 570           | 6.42%                 | 15.51%       | 108          | 200          | 6.42%                 | 15.51%       | 15.51%                            |
| <b>Magalang</b>                    | <b>34,840</b> | <b>43,940</b> | <b>2.32%</b>          | <b>0.37%</b> | <b>8,291</b> | <b>8,092</b> | <b>2.32%</b>          | <b>0.37%</b> | <b>-0.61%</b>                     |
| <b>Threatened</b>                  | <b>4,627</b>  | <b>6,038</b>  | <b>2.66%</b>          | <b>1.65%</b> | <b>1,139</b> | <b>1,112</b> | <b>2.66%</b>          | <b>1.65%</b> | <b>-0.61%</b>                     |
| Navaling                           | 660           | 854           | 2.58%                 | 3.57%        | 161          | 163          | 2.58%                 | 3.57%        | 0.29%                             |
| San Roque                          | 1,348         | 1,795         | 2.86%                 | 1.14%        | 339          | 321          | 2.86%                 | 1.14%        | -1.34%                            |
| Santo Rosario                      | 1,994         | 2,547         | 2.45%                 | 1.37%        | 481          | 488          | 2.45%                 | 1.37%        | 0.38%                             |
| Turu                               | 625           | 842           | 2.98%                 | 1.56%        | 159          | 140          | 2.98%                 | 1.56%        | -3.16%                            |
| <b>Unaffected</b>                  | <b>30,213</b> | <b>37,902</b> | <b>2.27%</b>          | <b>0.16%</b> | <b>7,151</b> | <b>6,980</b> | <b>2.27%</b>          | <b>0.16%</b> | <b>-0.61%</b>                     |
| Camias                             | 656           | 782           | 1.76%                 | -0.71%       | 148          | 140          | 1.76%                 | -0.71%       | -1.31%                            |
| Dolores                            | 538           | 710           | 2.77%                 | -5.93%       | 134          | 140          | 2.77%                 | -5.93%       | 1.10%                             |
| Escaler                            | 814           | 969           | 1.74%                 | 0.28%        | 183          | 180          | 1.74%                 | 0.28%        | -0.39%                            |
| La Paz                             | 635           | 922           | 3.73%                 | -3.55%       | 174          | 140          | 3.73%                 | -3.55%       | -5.43%                            |
| San Agustin                        | 1,906         | 1,237         | -4.32%                | 4.82%        | 233          | 240          | -4.32%                | 4.82%        | 0.70%                             |
| San Antonio                        | 647           | 752           | 1.50%                 | 2.77%        | 142          | 140          | 1.50%                 | 2.77%        | -0.33%                            |
| San Francisco                      | 1,908         | 2,337         | 2.03%                 | 3.05%        | 441          | 440          | 2.03%                 | 3.05%        | -0.05%                            |
| San Ildefonso                      | 3,618         | 4,563         | 2.32%                 | 2.29%        | 861          | 820          | 2.32%                 | 2.29%        | -1.22%                            |
| San Isidro                         | 492           | 756           | 4.30%                 | 1.41%        | 143          | 140          | 4.30%                 | 1.41%        | -0.47%                            |
| San Jose                           | 991           | 1,311         | 2.80%                 | -0.60%       | 247          | 240          | 2.80%                 | -0.60%       | -0.75%                            |
| San Miguel                         | 964           | 1,216         | 2.32%                 | 0.49%        | 229          | 220          | 2.32%                 | 0.49%        | -1.05%                            |
| San Nicolas 1st (Pop.)             | 2,935         | 2,812         | -0.43%                | -5.02%       | 531          | 540          | -0.43%                | -5.02%       | 0.44%                             |
| San Nicolas 2nd                    | 2,403         | 2,906         | 1.90%                 | -2.21%       | 548          | 540          | 1.90%                 | -2.21%       | -0.38%                            |
| San Pablo (Pop.)                   | 518           | 739           | 3.55%                 | -1.36%       | 139          | 140          | 3.55%                 | -1.36%       | 0.10%                             |
| San Pedro I                        | 1,712         | 1,748         | 0.21%                 | -0.40%       | 330          | 320          | 0.21%                 | -0.40%       | -0.75%                            |

**Total Population, Annual Growth Rate, Number of Households and Average Household Size 1980, 190, 194 (5/9)**

| Province/Municipality/<br>Barangay | Population    |               | Annual Growth Rate |              | Households    |               | Annual Growth Rate 90-94 | Average H'Hold Size 1994 |
|------------------------------------|---------------|---------------|--------------------|--------------|---------------|---------------|--------------------------|--------------------------|
|                                    | 1980          | 1990          | 1994               | 80-90        | 1990          | 1994          |                          |                          |
| San Pedro II.                      | 2,130         | 2,340         | 2,220              | 0.94%        | 442           | 440           | -0.09%                   | 5.05                     |
| San Vicente                        | 1,350         | 1,813         | 1,780              | 2.95%        | 342           | 340           | -0.15%                   | 5.24                     |
| Santa Cruz (Pop.)                  | 2,973         | 3,857         | 3,860              | 2.60%        | 728           | 680           | -1.70%                   | 5.68                     |
| Santa Lucia                        | 243           | 352           | 440                | 3.71%        | 66            | 60            | -2.54%                   | 7.33                     |
| Santa Maria                        | 1,078         | 1,428         | 1,800              | 2.81%        | 269           | 260           | -0.89%                   | 6.92                     |
| Santo Nino                         | 1,008         | 1,626         | 1,520              | 4.78%        | 307           | 300           | -0.56%                   | 5.07                     |
| Bucanan                            | 694           | 947           | 860                | 2.81%        | 179           | 180           | 0.18%                    | 4.78                     |
| Ayala                              | 0             | 1,779         | 1,980              | 4.78%        | 336           | 340           | 0.32%                    | 5.53                     |
| <b>Mexico</b>                      | <b>52,538</b> | <b>67,990</b> | <b>69,317</b>      | <b>2.58%</b> | <b>12,829</b> | <b>12,365</b> | <b>-0.92%</b>            | <b>5.61</b>              |
| <b>Threatened</b>                  | <b>25,852</b> | <b>33,590</b> | <b>31,697</b>      | <b>2.62%</b> | <b>6,338</b>  | <b>5,585</b>  | <b>-3.16%</b>            | <b>5.68</b>              |
| Acli                               | 850           | 979           | 1,088              | 1.41%        | 185           | 181           | -0.51%                   | 6.01                     |
| Anao                               | 2,338         | 2,962         | 1,972              | 2.37%        | 559           | 355           | -11.34%                  | 5.55                     |
| Buenavista                         | 559           | 753           | 911                | 2.98%        | 142           | 137           | -0.91%                   | 6.65                     |
| Camuning                           | 1,270         | 1,574         | 1,374              | 2.15%        | 297           | 220           | -7.50%                   | 6.25                     |
| Cawayan                            | 568           | 638           | 743                | 1.16%        | 120           | 150           | 5.00%                    | 4.95                     |
| Culubasa                           | 1,716         | 2,303         | 1,693              | 2.94%        | 435           | 280           | -10.99%                  | 6.05                     |
| Divisoria                          | 758           | 1,083         | 1,125              | 3.57%        | 204           | 193           | -1.43%                   | 5.83                     |
| Dolores                            | 738           | 1,057         | 1,222              | 3.59%        | 199           | 194           | -0.69%                   | 6.30                     |
| Eden                               | 347           | 362           | 540                | 0.42%        | 68            | 90            | 6.90%                    | 6.00                     |
| Gandus                             | 352           | 473           | 490                | 2.95%        | 89            | 85            | -1.22%                   | 5.76                     |
| Masangsang                         | 1,725         | 2,147         | 1,797              | 2.19%        | 405           | 338           | -4.53%                   | 5.32                     |
| Pangatian                          | 1,085         | 1,352         | 1,281              | 2.20%        | 255           | 201           | -5.96%                   | 6.37                     |
| San Carlos                         | 1,520         | 2,118         | 1,974              | 3.32%        | 400           | 400           | 0.02%                    | 4.94                     |
| San Jose Malino                    | 2,694         | 3,522         | 3,532              | 2.68%        | 565           | 585           | 3.19%                    | 6.04                     |
| San Juan                           | 1,795         | 2,464         | 2,351              | 3.17%        | 465           | 458           | -0.37%                   | 5.13                     |
| San Nicolas                        | 1,174         | 1,465         | 926                | 2.21%        | 276           | 167           | -12.60%                  | 5.54                     |
| San Vicente                        | 1,866         | 2,429         | 2,677              | 2.64%        | 458           | 425           | -1.89%                   | 6.30                     |
| Santa Cruz                         | 1,060         | 1,406         | 1,569              | 2.82%        | 265           | 274           | 0.81%                    | 5.73                     |
| Santa Maria                        | 1,148         | 1,597         | 1,778              | 3.30%        | 301           | 355           | 4.10%                    | 5.01                     |
| Santo Domingo                      | 1,261         | 1,617         | 1,253              | 2.49%        | 305           | 255           | -4.48%                   | 4.91                     |
| Suclaban                           | 408           | 584           | 622                | 3.59%        | 110           | 102           | -1.93% <sup>1</sup>      | 6.10                     |
| Tanglay                            | 620           | 705           | 779                | 1.28%        | 133           | 140           | 1.28%                    | 5.56                     |
| <b>Affected</b>                    | <b>12,975</b> | <b>16,750</b> | <b>18,620</b>      | <b>2.55%</b> | <b>3,167</b>  | <b>3,300</b>  | <b>1.06%</b>             | <b>5.64</b>              |
| Balas                              | 1,170         | 1,664         | 1,420              | 3.52%        | 314           | 320           | 0.47%                    | 4.44                     |
| Concepcion                         | 1,063         | 1,418         | 1,400              | 2.88%        | 268           | 260           | -0.76%                   | 5.38                     |

**Total Population, Annual Growth Rate, Number of Households and Average Household Size 1980, 190, 1994 (6/9)**

| Province/Municipality/<br>Barangay | Population    |               | Annual Growth Rate |               | Households   |              | Annual Growth Rate 90-94 | Average H'Hold Size 1994 |
|------------------------------------|---------------|---------------|--------------------|---------------|--------------|--------------|--------------------------|--------------------------|
|                                    | 1980          | 1990          | 1980-90            | 90-94         | 1990         | 1994         |                          |                          |
| <b>Barangay</b>                    |               |               |                    |               |              |              |                          |                          |
| San Antonio                        | 3,063         | 3,916         | 2.46%              | 1.51%         | 739          | 740          | 0.04%                    | 5.62                     |
| San Jose Matulid                   | 1,410         | 1,958         | 3.28%              | 4.88%         | 369          | 360          | -0.65%                   | 6.61                     |
| San Lorenzo                        | 1,366         | 1,693         | 2.15%              | 5.15%         | 319          | 320          | 0.04%                    | 6.50                     |
| San Pablo                          | 1,071         | 1,335         | 2.20%              | 0.46%         | 252          | 240          | -1.21%                   | 5.67                     |
| San Patricio                       | 2,183         | 2,896         | 2.83%              | 6.79%         | 546          | 660          | 4.72%                    | 5.76                     |
| Santo Rosario                      | 1,649         | 1,870         | 1.26%              | 1.93%         | 353          | 400          | 3.14%                    | 5.05                     |
| <b>Unaffected</b>                  | <b>13,711</b> | <b>17,650</b> | <b>2.53%</b>       | <b>1.84%</b>  | <b>3,330</b> | <b>3,480</b> | <b>1.10%</b>             | <b>5.46</b>              |
| Legundi                            | 1,827         | 2,399         | 2.72%              | -0.62%        | 453          | 480          | 1.47%                    | 4.88                     |
| Laug                               | 1,520         | 1,847         | 1.95%              | 1.74%         | 348          | 340          | -0.62%                   | 5.82                     |
| Masamat                            | 568           | 728           | 2.48%              | -4.01%        | 137          | 140          | 0.48%                    | 4.43                     |
| Nueva Victoria                     | 509           | 641           | 2.31%              | 4.26%         | 121          | 120          | -0.20%                   | 6.33                     |
| Pandacaqui                         | 1,033         | 1,286         | 2.19%              | 0.65%         | 243          | 260          | 1.73%                    | 5.08                     |
| Panipuan                           | 544           | 726           | 2.89%              | 10.39%        | 137          | 180          | 6.83%                    | 6.11                     |
| Parian (Pop.)                      | 3,448         | 4,109         | 1.75%              | 3.25%         | 775          | 820          | 1.40%                    | 5.71                     |
| Sabanilla                          | 922           | 1,098         | 1.75%              | -4.97%        | 207          | 200          | -0.88%                   | 4.50                     |
| San Miguel                         | 790           | 1,147         | 3.73%              | 4.62%         | 216          | 240          | 2.59%                    | 5.75                     |
| San Rafael                         | 405           | 635           | 4.50%              | 2.44%         | 120          | 120          | 0.04%                    | 5.83                     |
| San Roque                          | 433           | 647           | 4.02%              | 0.50%         | 122          | 120          | -0.43%                   | 5.50                     |
| Sapang Maisac                      | 1,712         | 2,387         | 3.32%              | 1.75%         | 450          | 460          | 0.53%                    | 5.57                     |
| <b>Sta. Ana</b>                    | <b>25,361</b> | <b>32,540</b> | <b>2.49%</b>       | <b>0.85%</b>  | <b>6,140</b> | <b>5,947</b> | <b>-0.80%</b>            | <b>5.66</b>              |
| <b>Threatened</b>                  | <b>11,503</b> | <b>14,517</b> | <b>2.33%</b>       | <b>-1.73%</b> | <b>2,739</b> | <b>2,327</b> | <b>-4.08%</b>            | <b>5.82</b>              |
| San Agustin                        | 1,299         | 1,649         | 2.39%              | 3.95%         | 311          | 339          | 2.14%                    | 5.70                     |
| San Bartolome                      | 1,056         | 1,522         | 3.66%              | -5.08%        | 287          | 224          | -6.21%                   | 5.54                     |
| San Joaquin                        | 2,632         | 2,767         | 0.50%              | -5.76%        | 522          | 368          | -8.74%                   | 5.97                     |
| San Juan                           | 1,193         | 1,569         | 2.74%              | -2.78%        | 296          | 259          | -3.34%                   | 5.42                     |
| San Pedro                          | 714           | 939           | 2.74%              | 2.72%         | 177          | 160          | -2.55%                   | 6.54                     |
| San Roque                          | 1,637         | 2,337         | 3.56%              | 0.79%         | 441          | 393          | -2.88%                   | 6.14                     |
| Santiago                           | 2,188         | 2,757         | 2.31%              | -1.02%        | 520          | 471          | -2.48%                   | 5.62                     |
| Santo Rosario                      | 784           | 977           | 2.20%              | -9.69%        | 184          | 113          | -12.23%                  | 5.87                     |
| <b>Unaffected</b>                  | <b>13,858</b> | <b>18,023</b> | <b>2.63%</b>       | <b>2.75%</b>  | <b>3,401</b> | <b>3,620</b> | <b>1.56%</b>             | <b>5.56</b>              |
| San Isidro                         | 3,300         | 4,203         | 2.42%              | 3.22%         | 793          | 800          | 0.22%                    | 5.98                     |
| San Jose                           | 610           | 737           | 1.89%              | 20.60%        | 139          | 300          | 19.22%                   | 5.60                     |
| San Nicolas                        | 2,102         | 2,639         | 2.28%              | 2.53%         | 498          | 520          | 1.08%                    | 5.62                     |
| San Pablo                          | 2,143         | 2,737         | 2.45%              | 2.95%         | 516          | 580          | 2.90%                    | 5.31                     |

**Total Population, Annual Growth Rate, Number of Households and Average Household Size 1980, 190, 1994 (7/9)**

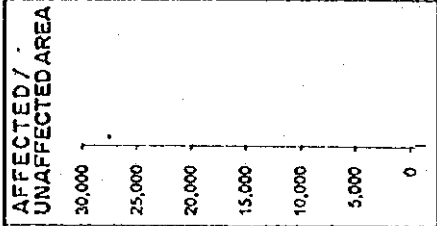
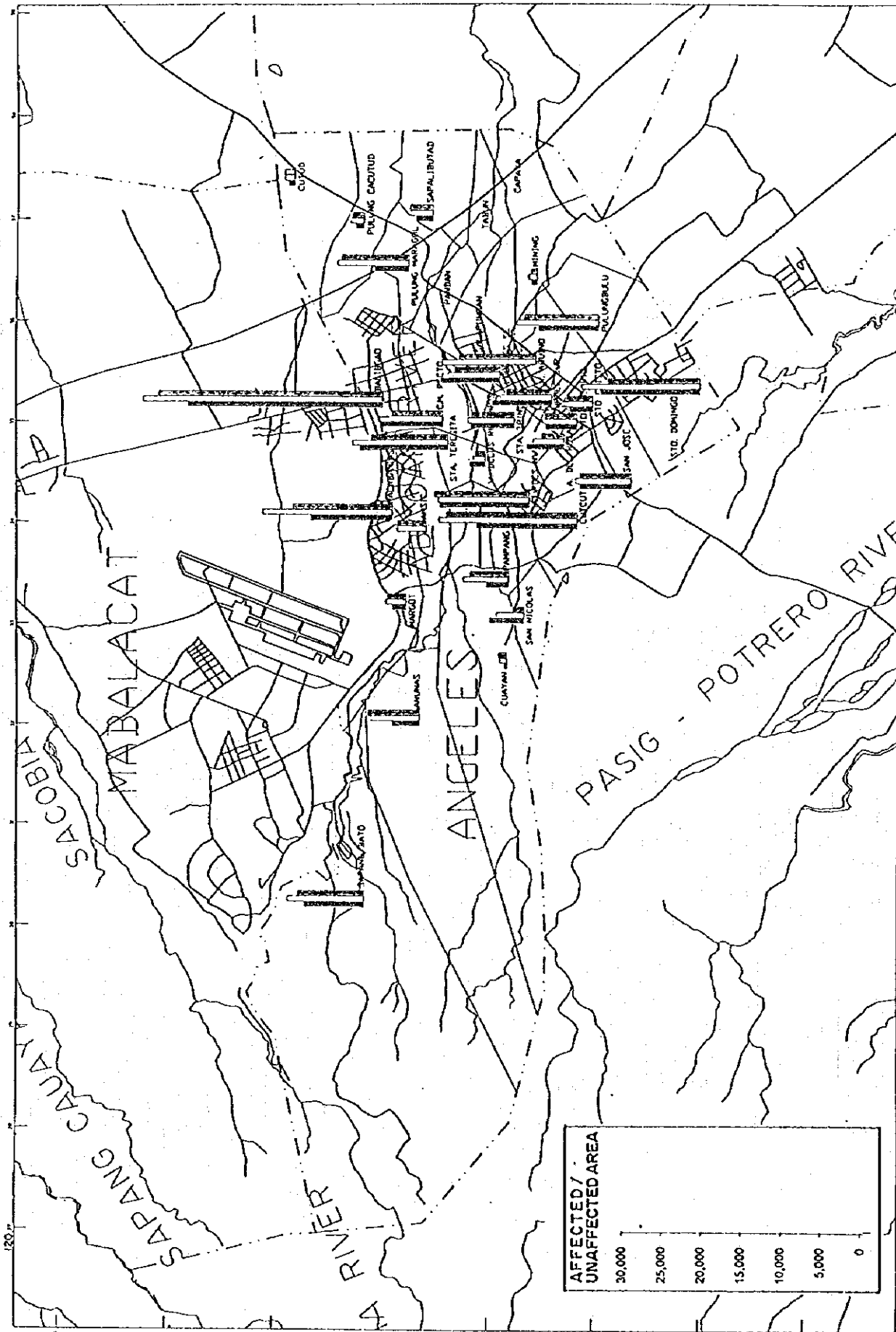
| Province/Municipality/<br>Barangay | Population |         | Annual Growth Rate |         | Households |        | Annual Growth Rate |         | Average H'Hold Size |      |
|------------------------------------|------------|---------|--------------------|---------|------------|--------|--------------------|---------|---------------------|------|
|                                    | 1980       | 1990    | 80-90              | 90-94   | 1990       | 1994   | 80-90              | 90-94   | 1994                | 1994 |
| Santa Lucia                        | 2,647      | 3,888   | 3.84%              | -2.92%  | 734        | 680    |                    | -1.90%  | 5.09                |      |
| Santa Maria                        | 3,056      | 4,200   | 2.23%              | 2.38%   | 721        | 740    |                    | 0.67%   | 5.68                |      |
| <b>TARLAC PROVINCE</b>             |            |         |                    |         |            |        |                    |         |                     |      |
| Threatened Barangays               | 119,192    | 156,114 | 2.70%              | -2.99%  | 29,455     | 26,651 |                    | -2.50%  | 5.20                |      |
| Affected Barangays                 | 76,178     | 100,025 | 2.72%              | -6.00%  | 18,873     | 15,431 |                    | -5.03%  | 5.10                |      |
| Unaffected Barangays               | 35,502     | 45,675  | 2.52%              | 0.12%   | 8,618      | 8,660  |                    | 0.12%   | 5.30                |      |
|                                    | 7,512      | 10,414  | 3.27%              | 7.33%   | 1,965      | 2,560  |                    | 6.61%   | 5.45                |      |
| <b>Bamban</b>                      | 23,863     | 32,543  | 3.10%              | -14.79% | 6,140      | 3,715  |                    | -12.56% | 4.85                |      |
| <b>Threatened</b>                  | 15,729     | 21,349  | 3.05%              | -15.67% | 4,028      | 2,355  |                    | -13.42% | 4.84                |      |
| Anupul                             | 3,447      | 5,035   | 3.79%              | 4.45%   | 950        | 1,239  |                    | 6.64%   | 4.86                |      |
| Culubasa                           | 162        | 271     | 5.15%              | -69.22% | 51         | 3      |                    | -70.89% | 5.67                |      |
| Dela Cruz                          | 2,039      | 2,613   | 2.48%              | -28.97% | 493        | 166    |                    | -27.21% | 4.94                |      |
| La Paz                             | 2,378      | 2,312   | -0.28%             | -33.64% | 436        | 123    |                    | -31.65% | 4.88                |      |
| Lourdes                            | 3,464      | 5,033   | 3.74%              | -47.10% | 950        | 163    |                    | -44.06% | 4.69                |      |
| V delos Remedios (Pacatcal)        | 845        | 1,126   | 2.87%              | -13.13% | 212        | 128    |                    | -12.67% | 5.20                |      |
| San Rafael                         | 383        | 684     | 5.80%              | -0.22%  | 129        | 123    |                    | -1.20%  | 5.51                |      |
| San Roque                          | 1,823      | 2,088   | 1.36%              | -29.52% | 394        | 140    |                    | -25.87% | 4.58                |      |
| San Vicente                        | 594        | 1,201   | 7.04%              | -20.26% | 227        | 120    |                    | -15.89% | 4.45                |      |
| Santo Nino                         | 594        | 986     | 5.07%              | -9.73%  | 186        | 150    |                    | -5.38%  | 4.45                |      |
| <b>Affected</b>                    | 8,134      | 11,194  | 3.79%              | -13.21% | 2,112      | 1,360  |                    | -11.00% | 4.85                |      |
| Banaba                             | 4,095      | 5,695   | 3.30%              | -48.45% | 1,075      | 220    |                    | -39.65% | 3.73                |      |
| San Nicolas (Pop.)                 | 4,039      | 5,499   | 3.09%              | 1.25%   | 1,038      | 1,140  |                    | 2.35%   | 5.07                |      |
| <b>Capas</b>                       | 18,883     | 25,795  | 3.12%              | -6.38%  | 4,867      | 4,036  |                    | -4.68%  | 4.95                |      |
| <b>Threatened</b>                  | 15,034     | 20,326  | 3.02%              | -7.52%  | 3,835      | 3,016  |                    | -6.07%  | 4.99                |      |
| Cubcub (Pop.)                      | 2,178      | 2,611   | 1.81%              | -5.22%  | 493        | 416    |                    | -4.23%  | 5.09                |      |
| Cutcut 1st                         | 3,594      | 5,650   | 4.52%              | -5.41%  | 1,066      | 887    |                    | -4.60%  | 5.13                |      |
| Cutcut 2nd                         | 2,468      | 3,177   | 2.53%              | -18.30% | 599        | 300    |                    | -17.31% | 5.09                |      |
| Sto. Domingo 1st                   | 1,684      | 1,948   | 1.46%              | -12.28% | 368        | 268    |                    | -7.90%  | 4.45                |      |
| Sto. Domingo 2nd                   | 2,834      | 4,016   | 3.49%              | -9.56%  | 758        | 555    |                    | -7.78%  | 4.94                |      |
| Sto. Rosario                       | 2,276      | 2,924   | 2.51%              | -0.05%  | 552        | 590    |                    | 1.68%   | 4.95                |      |

**Total Population, Annual Growth Rate, Number of Households and Average Household Size 1980, 190, 1994 (8/9)**

| Province/Municipality/<br>Barangay | Population |        | Annual Growth Rate |         | Households |        | Annual Growth Rate 90-94 | Average H'Hold Size 1994 |
|------------------------------------|------------|--------|--------------------|---------|------------|--------|--------------------------|--------------------------|
|                                    | 1980       | 1990   | 80-90              | 90-94   | 1990       | 1994   |                          |                          |
| <b>Affected</b>                    |            |        |                    |         |            |        |                          |                          |
| Aranguren                          | 3,357      | 4,385  | 2.67%              | -4.93%  | 827        | 820    | -0.22%                   | 4.39                     |
|                                    | 3,357      | 4,385  | 2.67%              | -4.93%  | 827        | 820    | -0.22%                   | 4.39                     |
| <b>Unaffected</b>                  |            |        |                    |         |            |        |                          |                          |
| Marugli                            | 492        | 1,084  | 7.90%              | 5.30%   | 205        | 200    | -0.56%                   | 6.70                     |
|                                    | 492        | 1,084  | 7.90%              | 5.30%   | 205        | 200    | -0.56%                   | 6.70                     |
| <b>Concepcion</b>                  |            |        |                    |         |            |        |                          |                          |
|                                    | 76,446     | 97,776 | 2.46%              | 0.70%   | 18,448     | 18,900 | 0.60%                    | 5.32                     |
| <b>Threatened</b>                  |            |        |                    |         |            |        |                          |                          |
| Cafe                               | 45,415     | 56,350 | 2.51%              | -2.77%  | 11,009     | 10,060 | -2.25%                   | 5.19                     |
|                                    | 1,766      | 2,277  | 2.54%              | -3.46%  | 430        | 365    | -4.08%                   | 5.43                     |
| Corazon de Jesus                   | 1,155      | 1,012  | 2.77%              | -10.22% | 287        | 204    | -8.57%                   | 4.96                     |
| Cuñatingan                         | 1,842      | 2,229  | 3.09%              | -2.96%  | 473        | 399    | -4.27%                   | 5.59                     |
| Dungen                             | 502        | 713    | 3.51%              | -1.44%  | 135        | 130    | -0.86%                   | 5.18                     |
| Jefmin (Dutung-A-Matas)            | 1,138      | 1,538  | 3.01%              | 13.91%  | 290        | 512    | 14.19%                   | 5.24                     |
| Mabilog                            | 1,404      | 1,728  | 2.08%              | -0.54%  | 326        | 364    | 2.75%                    | 4.65                     |
| Parulung                           | 834        | 1,004  | 1.86%              | -0.38%  | 189        | 182    | -1.00%                   | 5.43                     |
| Pitabunan                          | 935        | 1,152  | 2.09%              | -1.66%  | 217        | 222    | 0.53%                    | 4.86                     |
| San Francisco                      | 3,532      | 4,374  | 2.14%              | 2.53%   | 825        | 942    | 3.31%                    | 5.14                     |
| San Jese (Pop.)                    | 6,535      | 7,591  | 1.50%              | -4.87%  | 1,432      | 1,195  | -4.53%                   | 5.23                     |
| San Nicolas (Pop.)                 | 3,798      | 3,891  | 0.24%              | -8.25%  | 734        | 591    | -5.42%                   | 4.73                     |
| Sto. Nino                          | 1,265      | 1,766  | 3.34%              | 0.59%   | 333        | 356    | 1.65%                    | 5.08                     |
| Sta. Cruz                          | 2,428      | 3,309  | 3.10%              | -1.56%  | 624        | 547    | -3.31%                   | 5.68                     |
| Sta. Maria                         | 485        | 567    | 2.91%              | -3.38%  | 122        | 119    | -0.72%                   | 4.76                     |
| Sta. Monica                        | 3,366      | 4,231  | 2.29%              | -1.53%  | 798        | 747    | -1.66%                   | 5.33                     |
| Sta. Rosa                          | 1,754      | 3,012  | 5.41%              | -4.43%  | 568        | 494    | -3.50%                   | 5.11                     |
| Santiago                           | 2,471      | 3,113  | 2.31%              | -5.66%  | 587        | 459    | -6.16%                   | 5.41                     |
| Sto. Rosario (Magunting)           | 906        | 1,269  | 3.37%              | -1.69%  | 239        | 236    | -0.36%                   | 5.03                     |
| Talimunduc Marimla                 | 991        | 1,112  | 1.15%              | 2.54%   | 210        | 223    | 1.52%                    | 5.52                     |
| Telabanca                          | 1,795      | 2,249  | 2.25%              | -21.65% | 424        | 174    | -22.29%                  | 5.44                     |
| Tinang                             | 2,288      | 2,989  | 2.67%              | -1.05%  | 564        | 559    | -0.22%                   | 5.13                     |
| Alfonso                            | 4,225      | 4,740  | 1.15%              | -4.81%  | 894        | 763    | -3.97%                   | 5.12                     |
| Green Village                      | 0          | 1,395  |                    | -3.50%  | 304        | 277    | -2.32%                   | 5.04                     |
| <b>Affected</b>                    |            |        |                    |         |            |        |                          |                          |
| Balutu                             | 24,011     | 30,096 | 2.26%              | 4.27%   | 5,678      | 6,480  | 3.30%                    | 5.51                     |
| Calius Gueco                       | 2,468      | 2,943  | 1.76%              | 9.94%   | 555        | 700    | 5.79%                    | 6.26                     |
| Castillo                           | 699        | 904    | 2.57%              | 9.46%   | 171        | 240    | 8.54%                    | 5.50                     |
| Lilibangan                         | 1,508      | 2,155  | 3.57%              | 0.29%   | 407        | 420    | 0.81%                    | 5.19                     |
|                                    | 559        | 785    | 3.40%              | -2.87%  | 148        | 140    | -1.41%                   | 5.00                     |

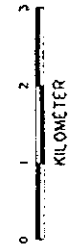
Total Population, Annual Growth Rate, Number of Households and Average Household Size 1980, 1994, 1994 (9/9)

| Province/Municipality/<br>Barangay | Population |       | Annual Growth<br>Rate |        | Households |       | Annual Growth<br>Rate |       | Average<br>H'Hold<br>Size |      |
|------------------------------------|------------|-------|-----------------------|--------|------------|-------|-----------------------|-------|---------------------------|------|
|                                    | 1980       | 1990  | 80-90                 | 90-94  | 1990       | 1994  | 80-90                 | 90-94 | 1994                      | 1994 |
| Magao                              | 1,710      | 2,431 | 3.52%                 | 2.99%  | 459        | 460   | 0.07%                 |       |                           | 5.96 |
| Malupa                             | 979        | 1,463 | 4.02%                 | -0.05% | 276        | 280   |                       |       |                           | 5.21 |
| Minane                             | 3,166      | 3,550 | 1.14%                 | 5.48%  | 670        | 720   | 1.81%                 |       |                           | 6.14 |
| Panalicsican                       | 919        | 894   | 0.88%                 | 8.18%  | 169        | 240   | 8.82%                 |       |                           | 5.17 |
| San Antonio                        | 1,559      | 1,998 | 2.48%                 | 13.14% | 377        | 520   | 8.04%                 |       |                           | 6.50 |
| San Bartolome                      | 1,207      | 1,634 | 3.03%                 | 5.55%  | 308        | 360   | 3.88%                 |       |                           | 5.67 |
| San Isidro (Almendras)             | 1,848      | 2,139 | 1.46%                 | 4.49%  | 404        | 480   | 4.33%                 |       |                           | 5.33 |
| San Martin                         | 934        | 1,220 | 2.67%                 | -4.97% | 230        | 240   | 1.04%                 |       |                           | 4.17 |
| San Nicolas Bajas                  | 1,680      | 2,046 | 1.97%                 | 8.37%  | 386        | 480   | 5.45%                 |       |                           | 5.96 |
| Sta. Rita                          | 4,172      | 4,885 | 1.58%                 | -4.50% | 922        | 960   | 1.02%                 |       |                           | 4.25 |
| San Vicente                        | 703        | 1,049 | 4.00%                 | 6.12%  | 198        | 240   | 4.82%                 |       |                           | 5.58 |
| <i>Unaffected</i>                  | 7,020      | 9,330 | 2.84%                 | 7.55%  | 1,760      | 2,360 | 7.33%                 |       |                           | 5.35 |
| Caluluan                           | 2,393      | 3,206 | 2.92%                 | 4.64%  | 605        | 720   | 4.35%                 |       |                           | 5.36 |
| Pando                              | 1,194      | 1,546 | 2.58%                 | 9.71%  | 292        | 440   | 10.28%                |       |                           | 5.18 |
| San Juan (Castro)                  | 1,409      | 1,986 | 3.43%                 | 19.43% | 375        | 720   | 16.33%                |       |                           | 6.00 |
| Sto. Cristo                        | 737        | 879   | 1.76%                 | 3.22%  | 166        | 240   | 9.24%                 |       |                           | 4.17 |
| Talimunduc San Miguel              | 1,287      | 1,713 | 2.86%                 | -9.75% | 323        | 240   | -7.44%                |       |                           | 4.83 |



POPULATION  
1980, 1990, 1994  
ANGELES CITY

■ - 1980  
 ■ - 1990  
 ■ - 1994



JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 STUDY ON FLOOD AND WIND LOW CONTROL  
 SACOBIA-BAMBAN/ANGELAS RIVER SYSTEM  
 FROM MT. PINATUBO



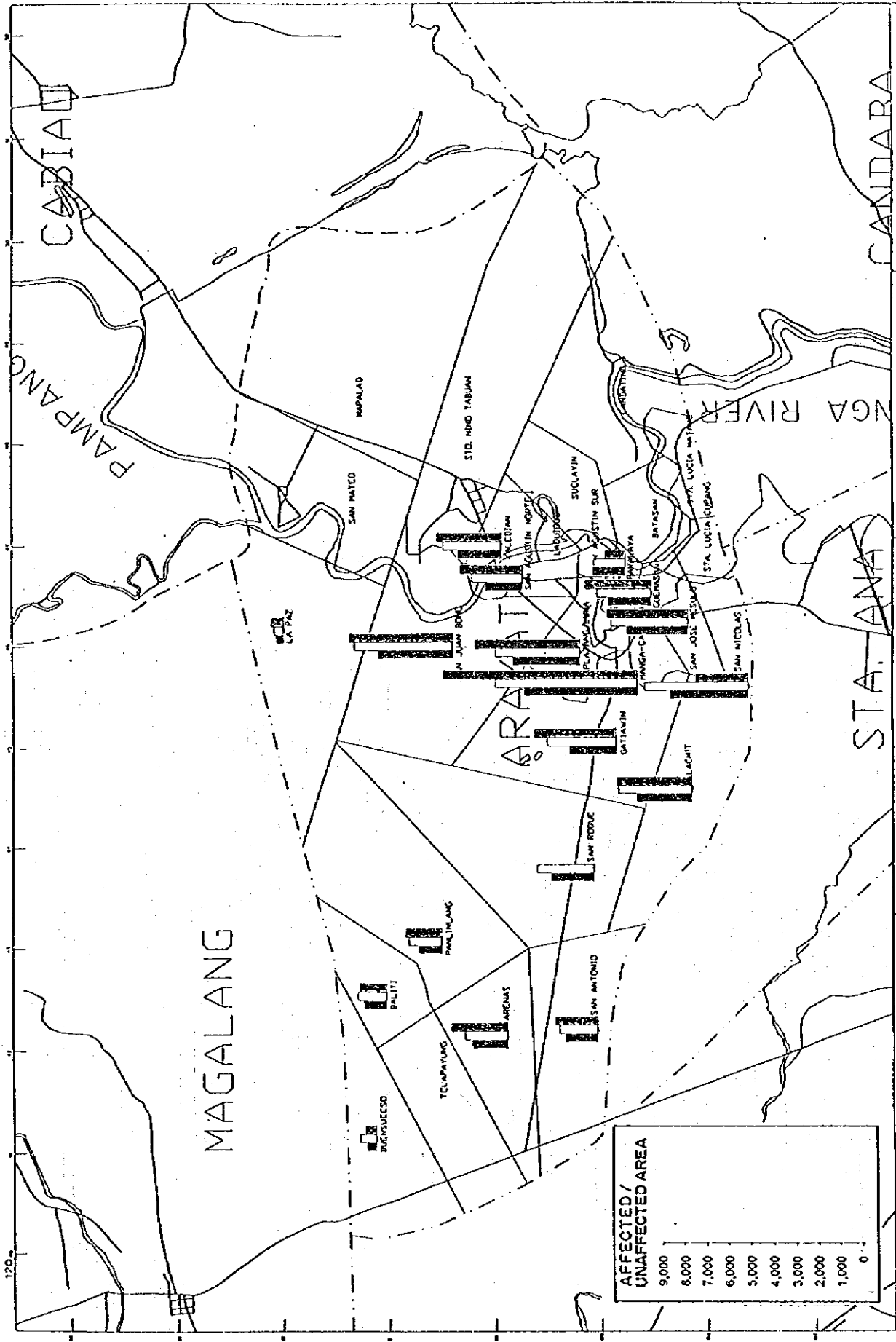
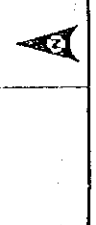
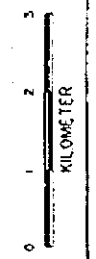


FIGURE NO. 15

JICA, JAPAN INTERNATIONAL COOPERATION AGENCY  
STUDY ON FLOOD AND WURK LOW CONTROL FOR  
SACODIA-BAMBAN/ARAYAN RIVERS'S DRAINING  
FROM MT. PINATURO



1980 - 1980  
1990 - 1990  
1994 - 1994

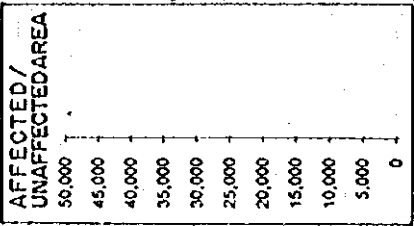
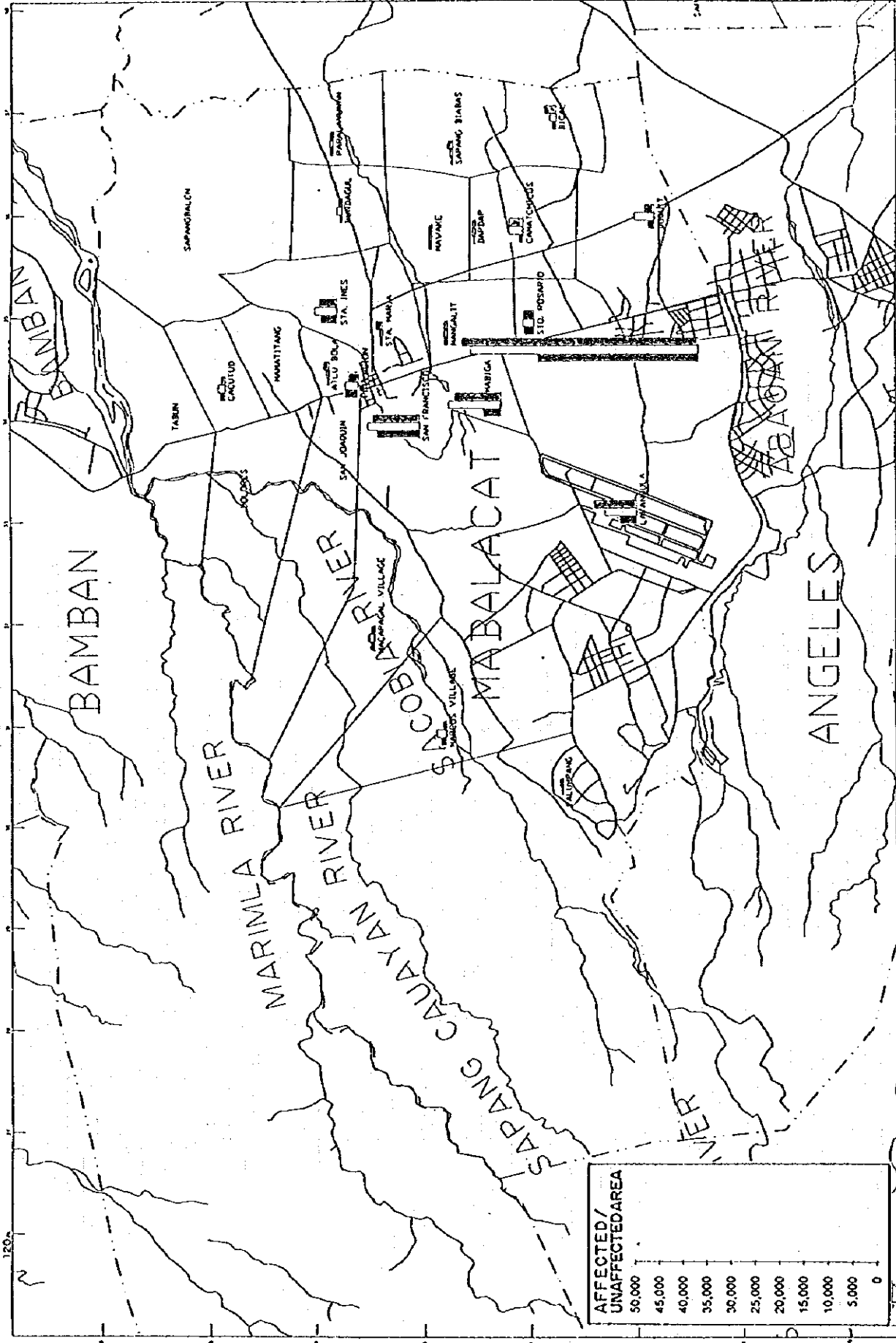


FIGURE NO. \_\_\_\_\_

**POPULATION**  
1980, 1990, 1994

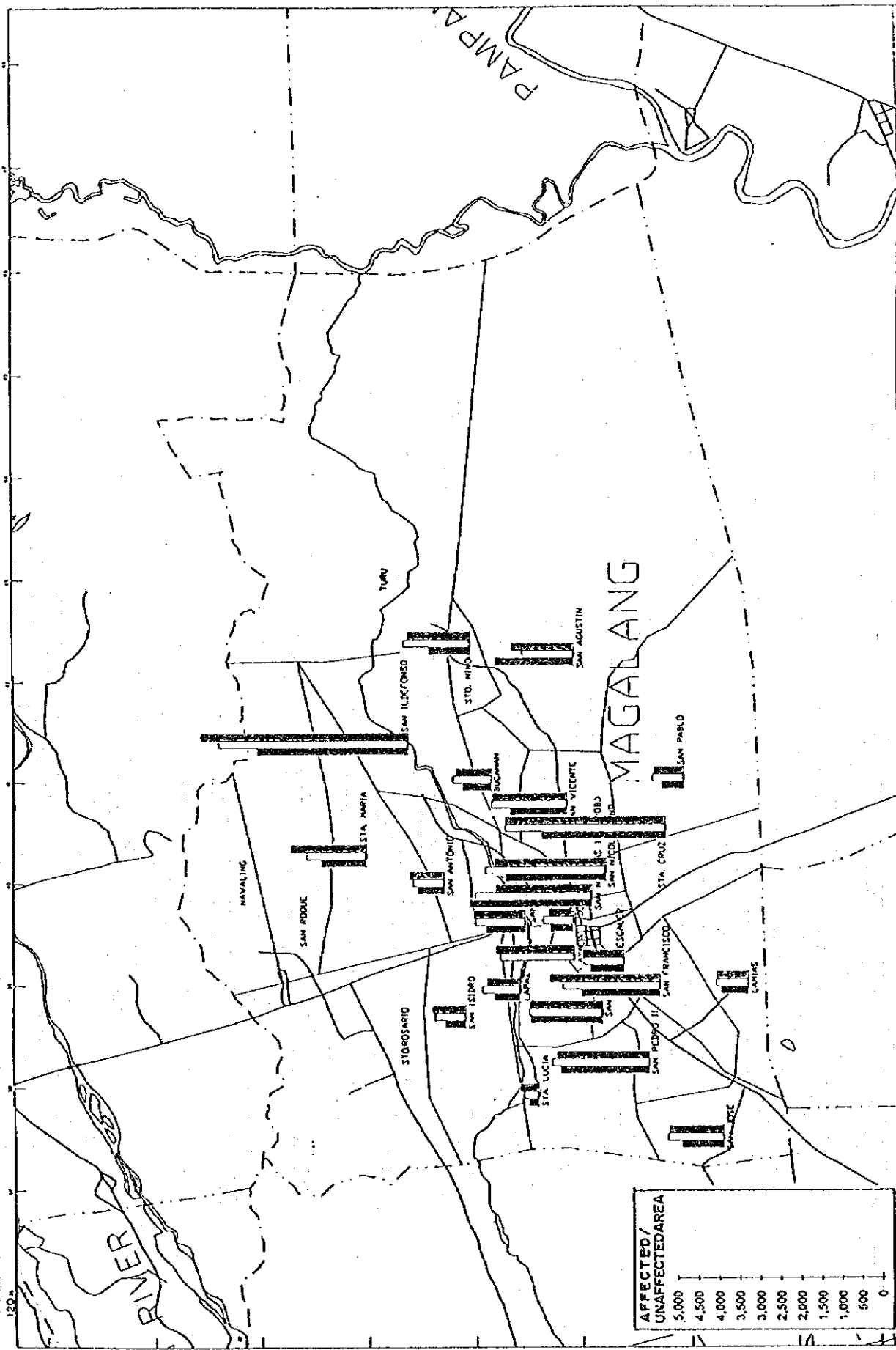
MABALACAT, PAMPANGA

- 1980  
 - 1990  
 - 1994

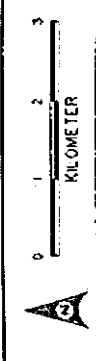
0 1 2 3  
 KILOMETER

JAPAN INTERNATIONAL COOPERATION AGENCY  
 STUDY ON FLOOD AND MUDFLOW CONTROL FOR  
 SACOBIA-BAMBAN/ARACAN RIVERS ON-AIRING  
 FROM MT. PINATUBO

REFERENCE NO.



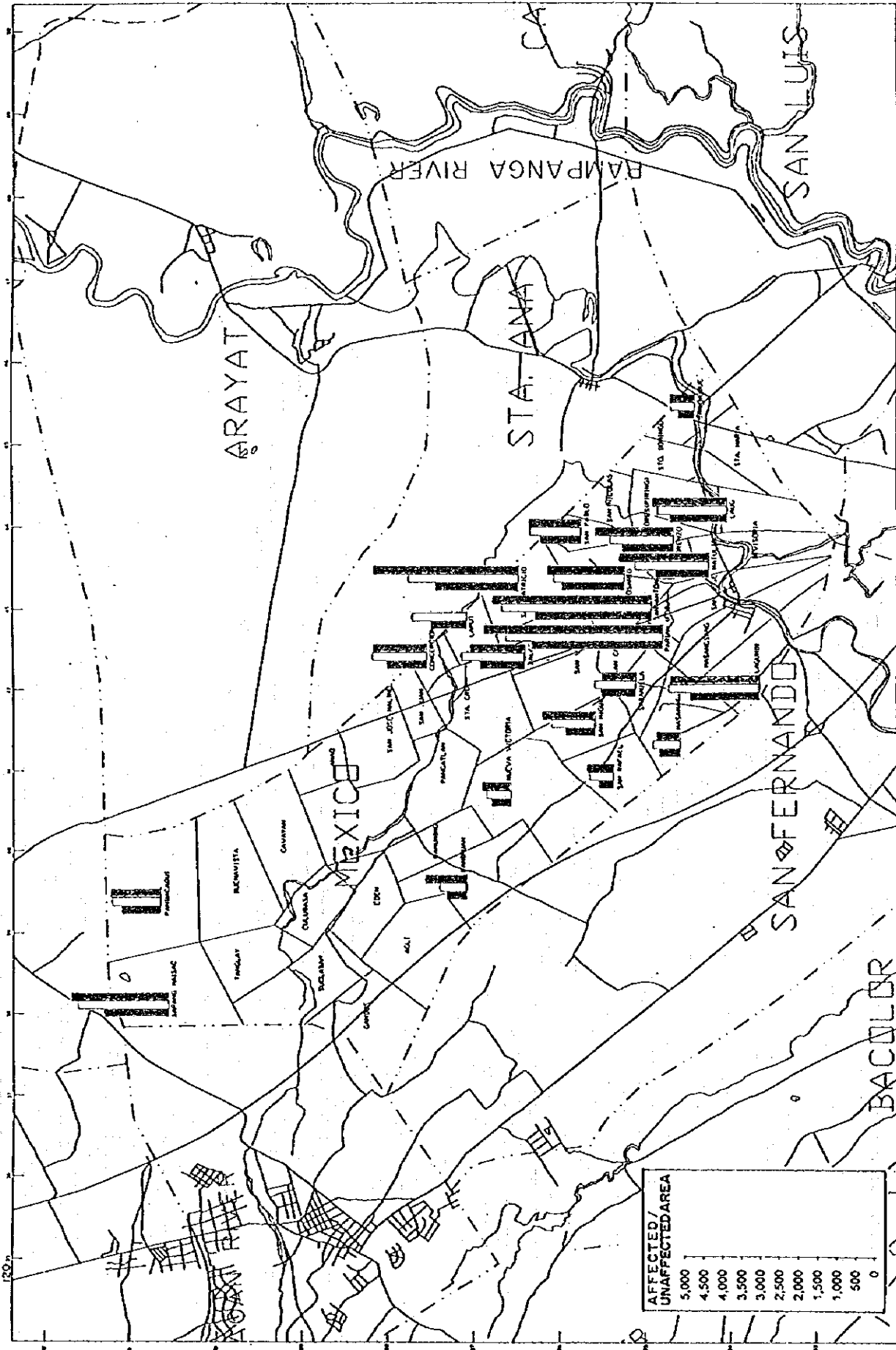
JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 STUDY ON FLOOD AND WINDTOW CONTROL FOR  
 SACOBIA-BAMBAN/ABACAN RIVERS DRAINING  
 FROM MT. PINATUBO



— 1980  
 — 1990  
 — 1994

POPULATION  
 1980, 1990, 1994  
 MAGALANG, PAMPANGA

FIGURE NO.



JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 STUDY ON FLOOD AND MUDFLOW CONTROL FOR  
 SACOBIA-GAMBAN/ARACAN RIVERS TRAFFIC  
 FROM MT. PINATURO

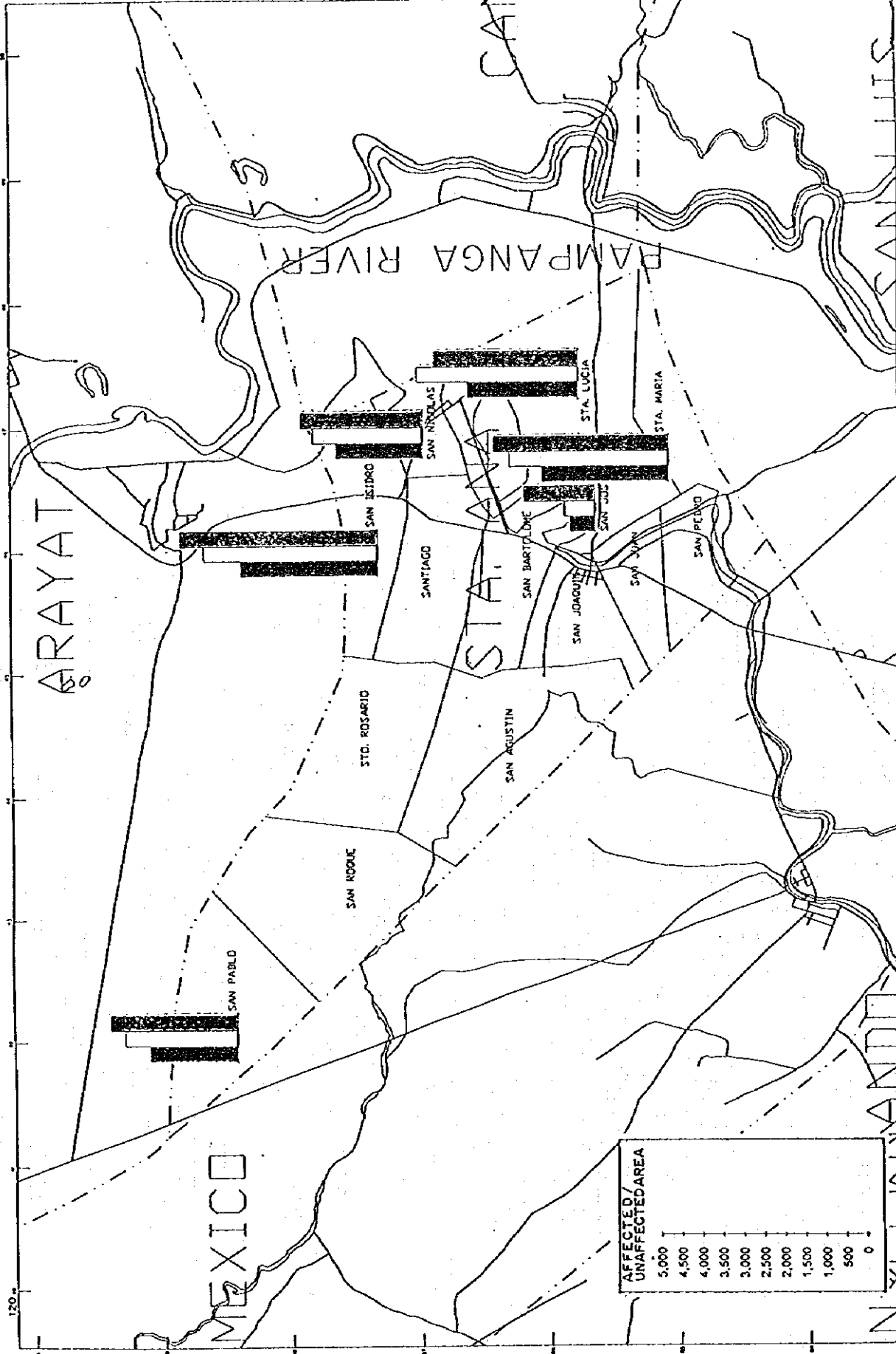
0 1 2 3  
 KILOMETER

— 1980  
 — 1990  
 — 1994

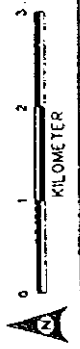
POPULATION  
 1980, 1990, 1994  
 MEXICO, PAMPANGA

FIGURE NO.

SCALE NO.



JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 STUDY ON FLOOD AND WATLOW CONTROL FOR  
 SACOBIA-BABAN/ABACAN RIVERS DRAINING  
 FROM MT. PINATUBO

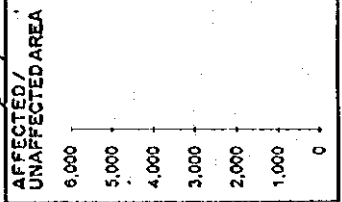
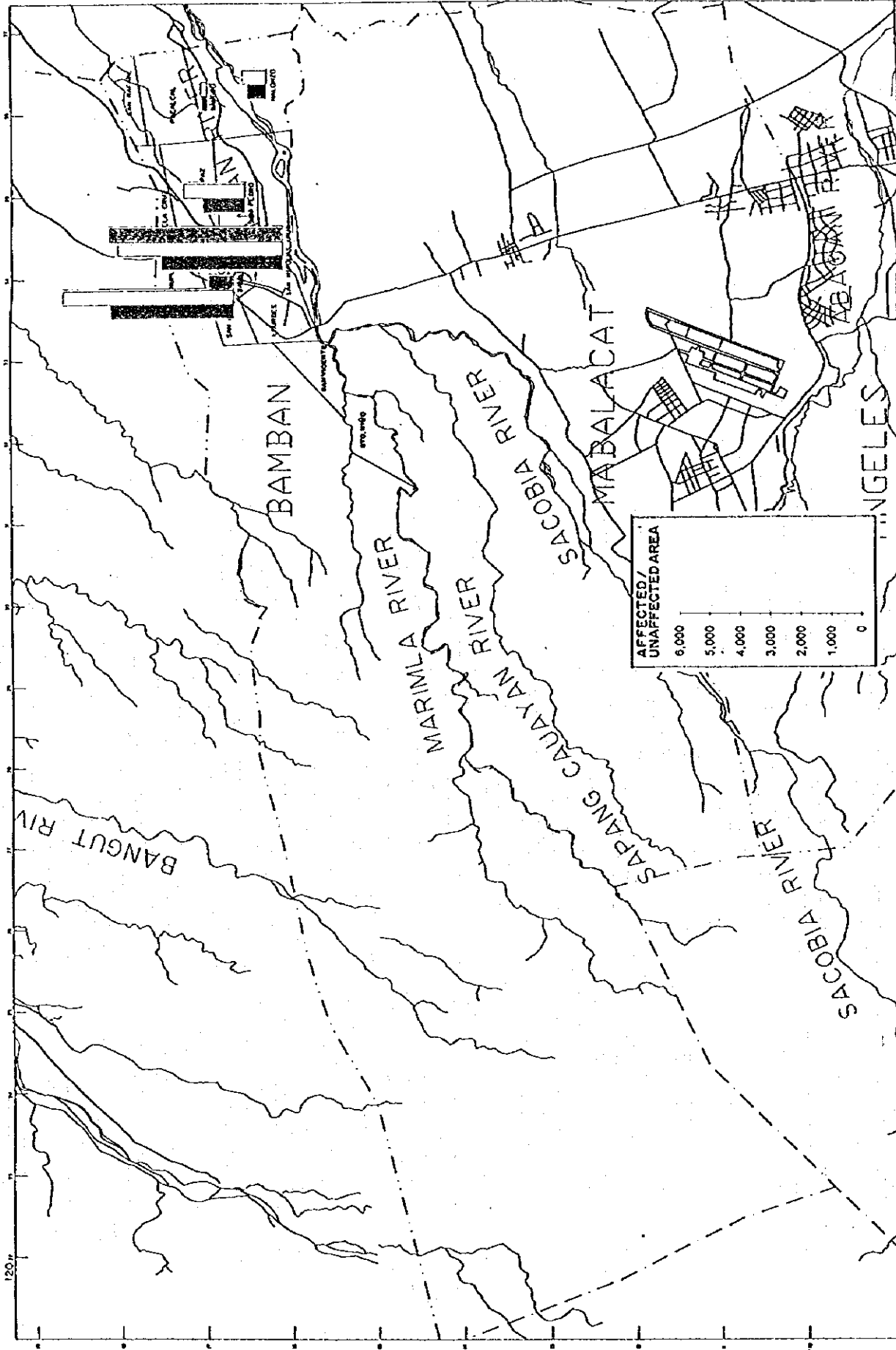


— 1980  
 — 1990  
 — 1994

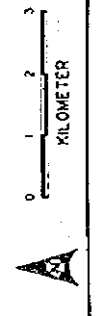
POPULATION  
 1980, 1990, 1994  
 STA. ANA, PAMPANGA

FIGURE NO.

REFERENCE NO.



JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 STUDY ON FLOOD AND MULTIFLOW CONTROL FOR  
 SACOBIA-BAMBAN/ABACAN RIVERS DRAINING  
 FROM MT. PINATUBO

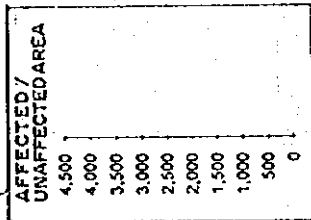
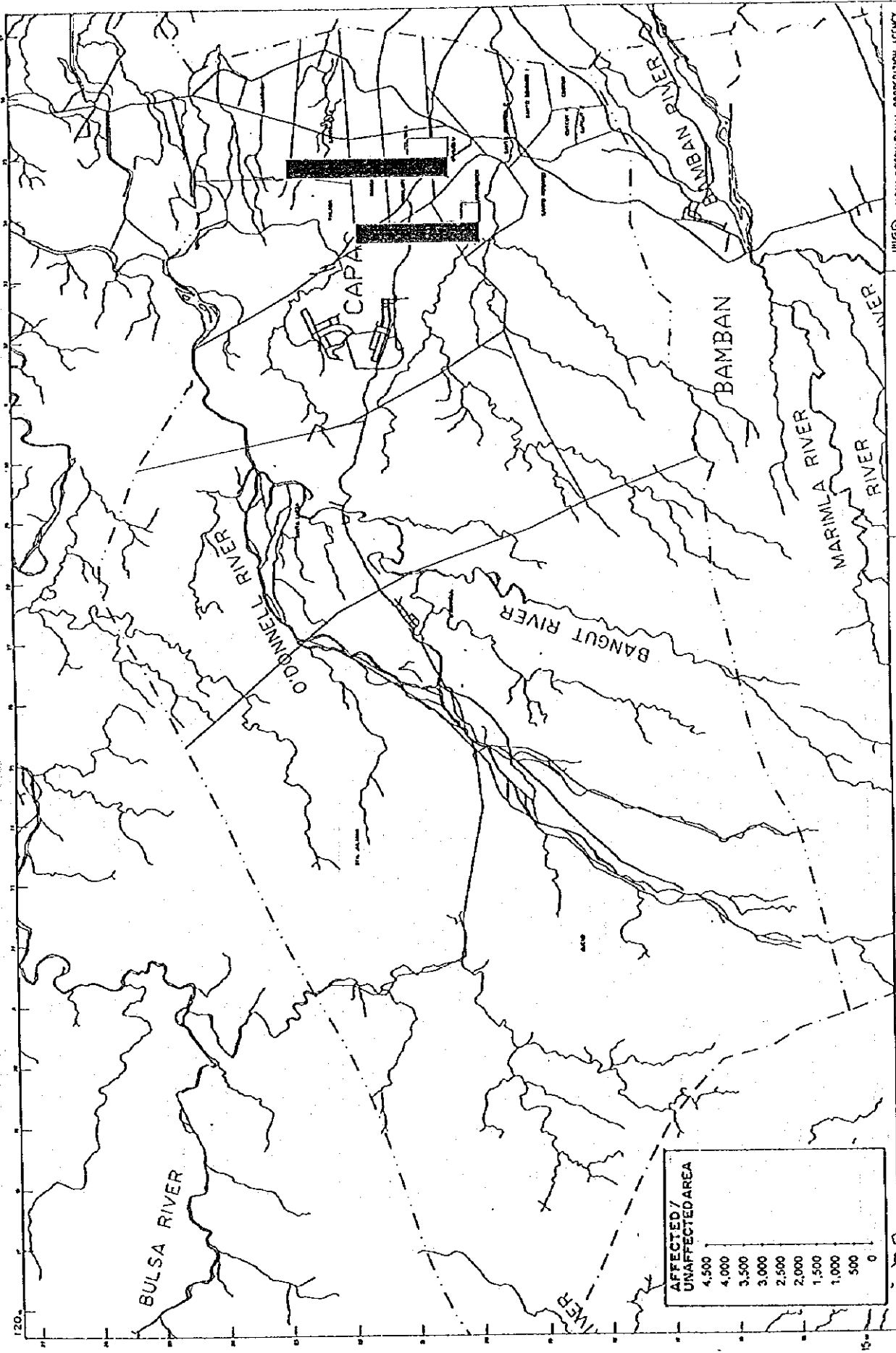


— 1980  
 — 1990  
 — 1994

POPULATION  
 1980, 1990, 1994  
 BAMBAN, TARLAC

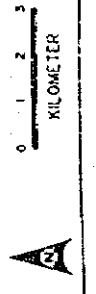
FIGURE NO.

REFERENCE NO.



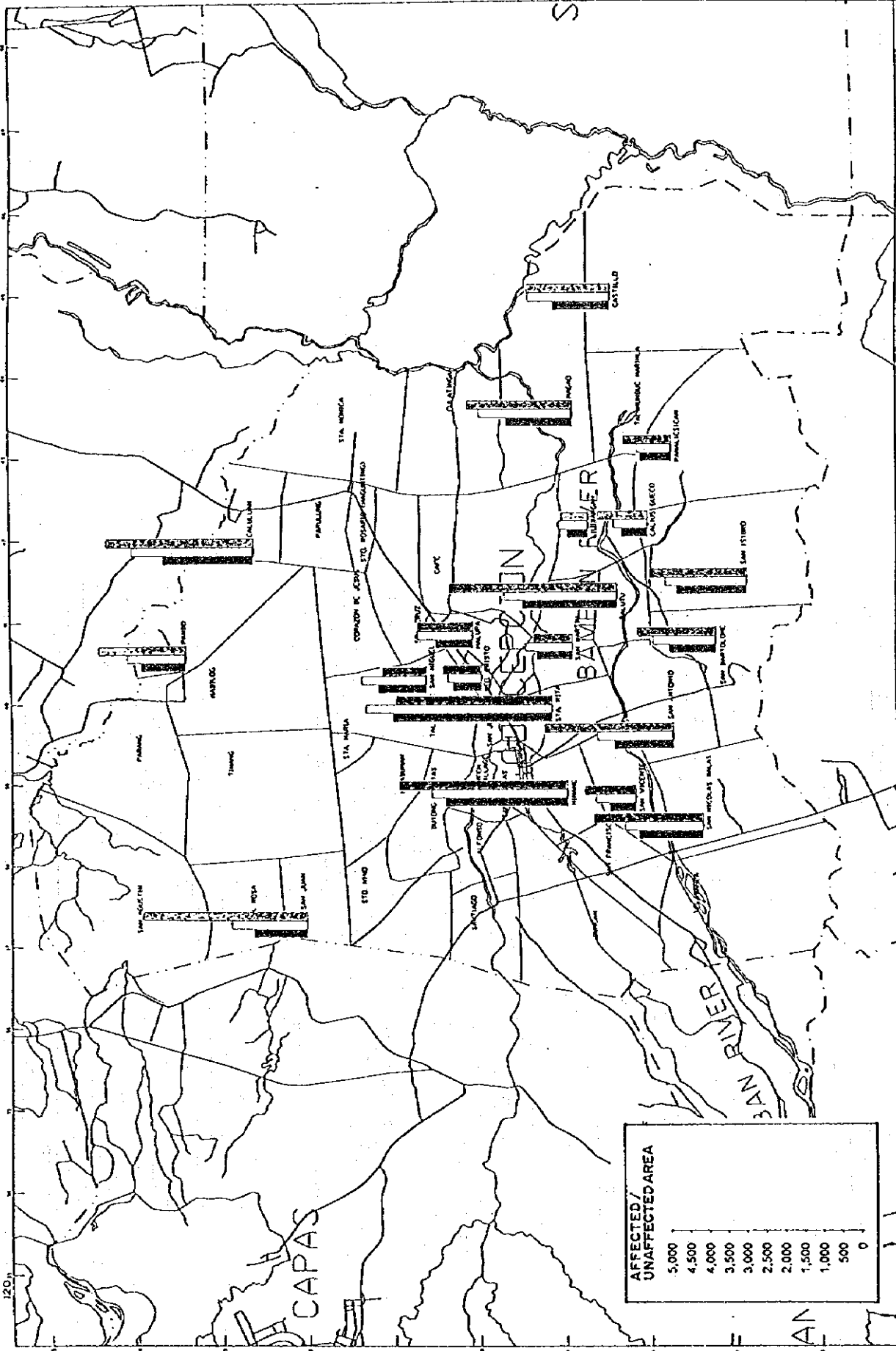
POPULATION  
1980, 1990, 1994  
CAPAS, TARLAC

— 1980  
- - - 1990  
· · · 1994

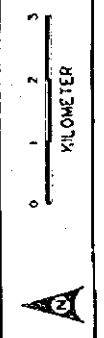


JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
STUDY ON FLOOD AND MUDFLOW CONTROL FOR  
SAGORIA BAMBAN/ARACAN RIVERS DRAINING  
FROM MT. PINATUBO

REFERENCE NO.



JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 STUDY ON FLOOD AND WATERSHED CONTROL FOR  
 SACOBIA-BANAGAN/ABACAY RIVERS DRAINAGE  
 FROM MT. PINATUBO



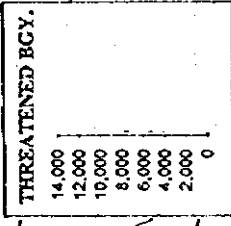
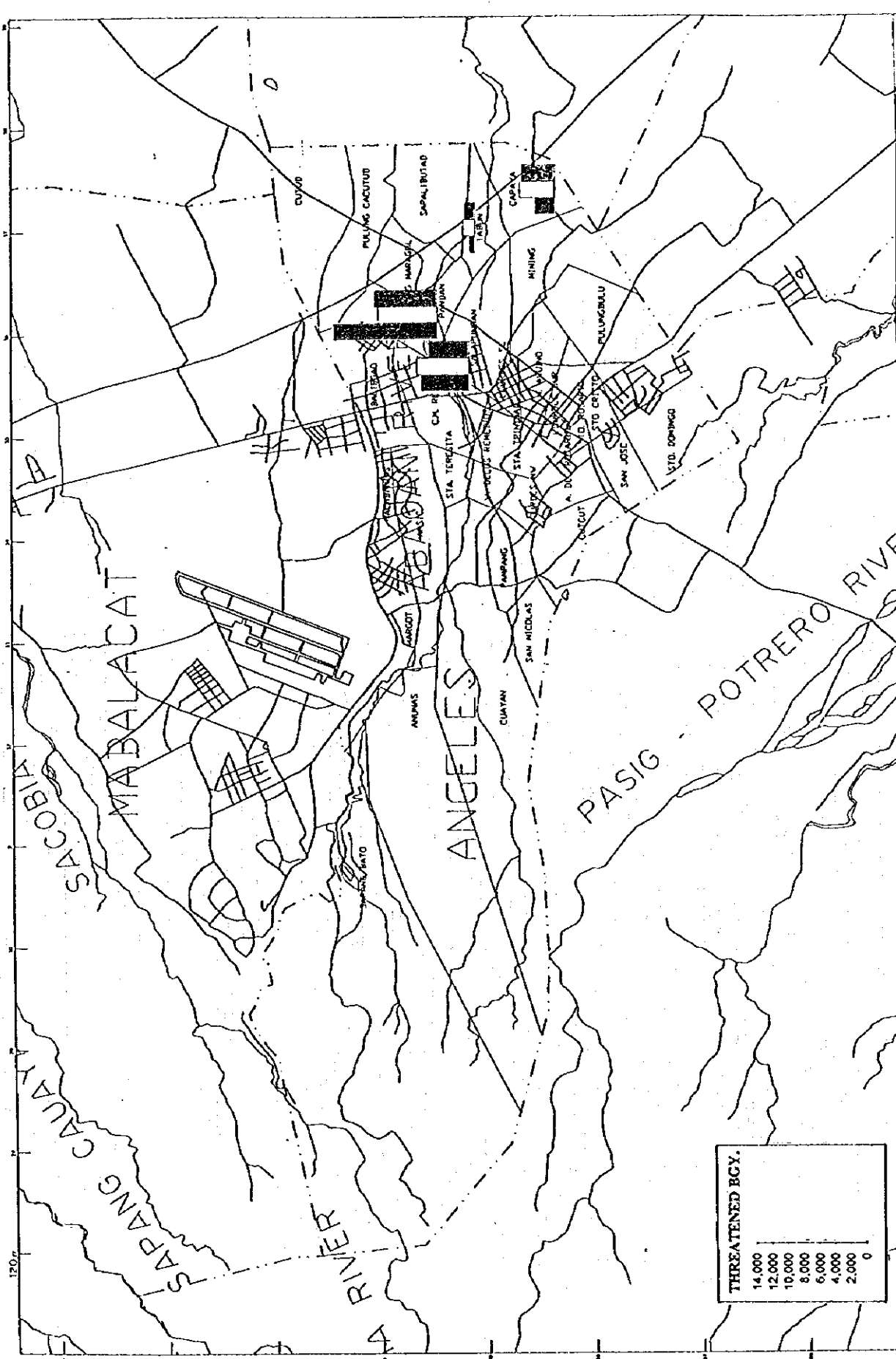
— 1980  
 — 1990  
 — 1994

POPULATION  
 1980, 1990, 1994  
 CONCEPCION, TARLAC

FIGURE NO.

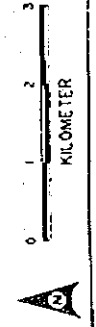


REFERENCE NO.

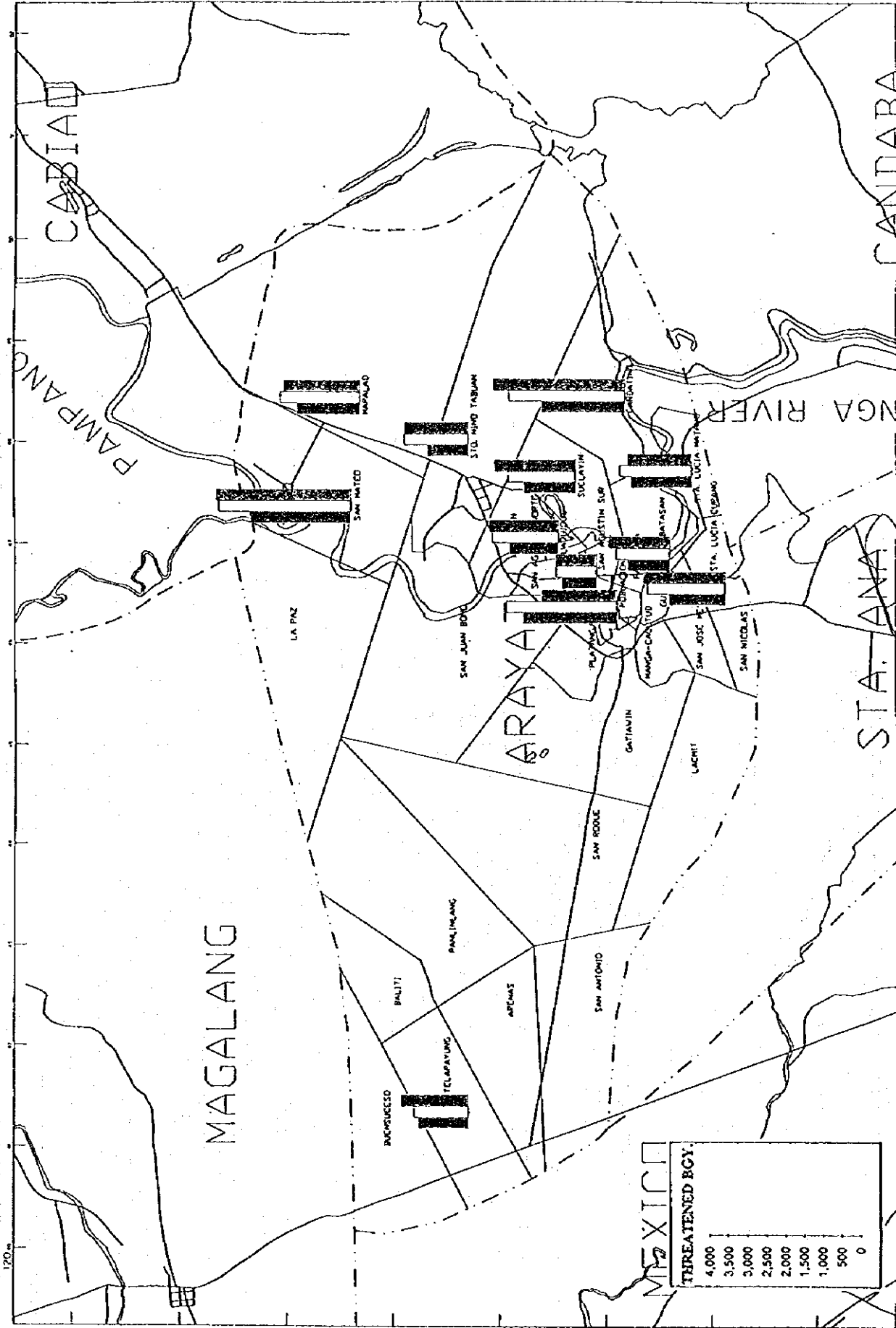


**POPULATION**  
1980, 1990, 1994  
ANGELES CITY

— 1980  
— 1990  
— 1994



JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
STUDY ON FLOOD AND MUDFLOW CONTROL FOR  
SACOBIA-BANBAN/ABACAN RIVERS DRINKING  
FROM MT. PMA 1990



JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 STUDY ON FLOOD AND HIGH LOW CONTROL FOR  
 SACOBIA-BARRIAN/ARACAN RIVERS DRAINAGE  
 FROM MT. PINATUBO

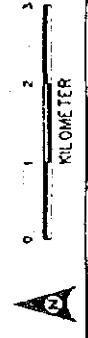
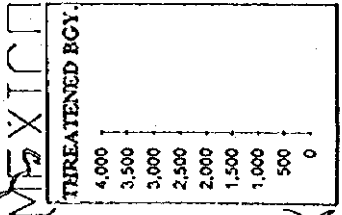
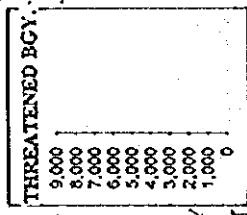
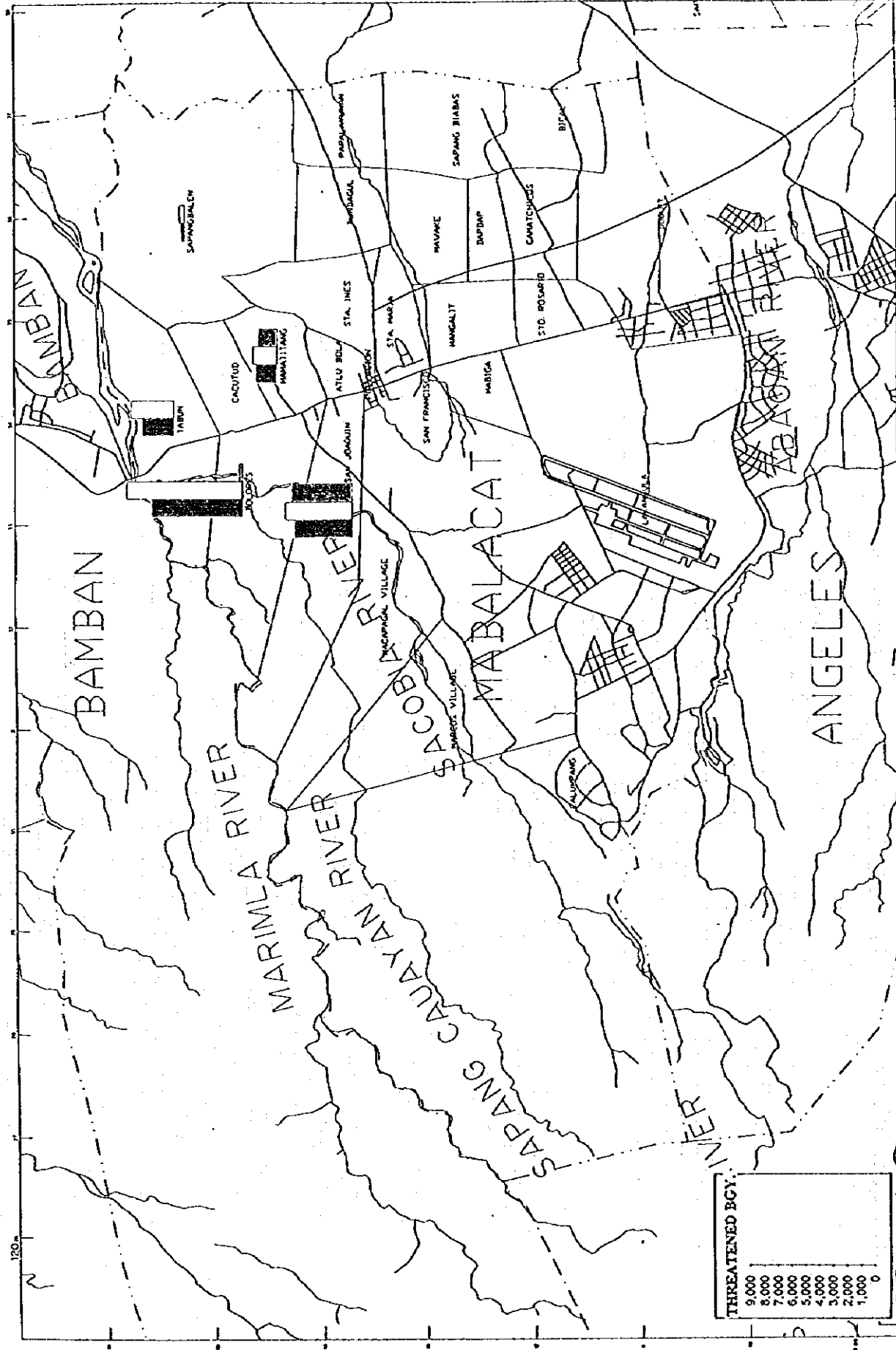


FIGURE NO. POPULATION  
 1980, 1990, 1994  
 ARAYAT, PAMPANGA

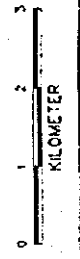


REFERENCE NO.



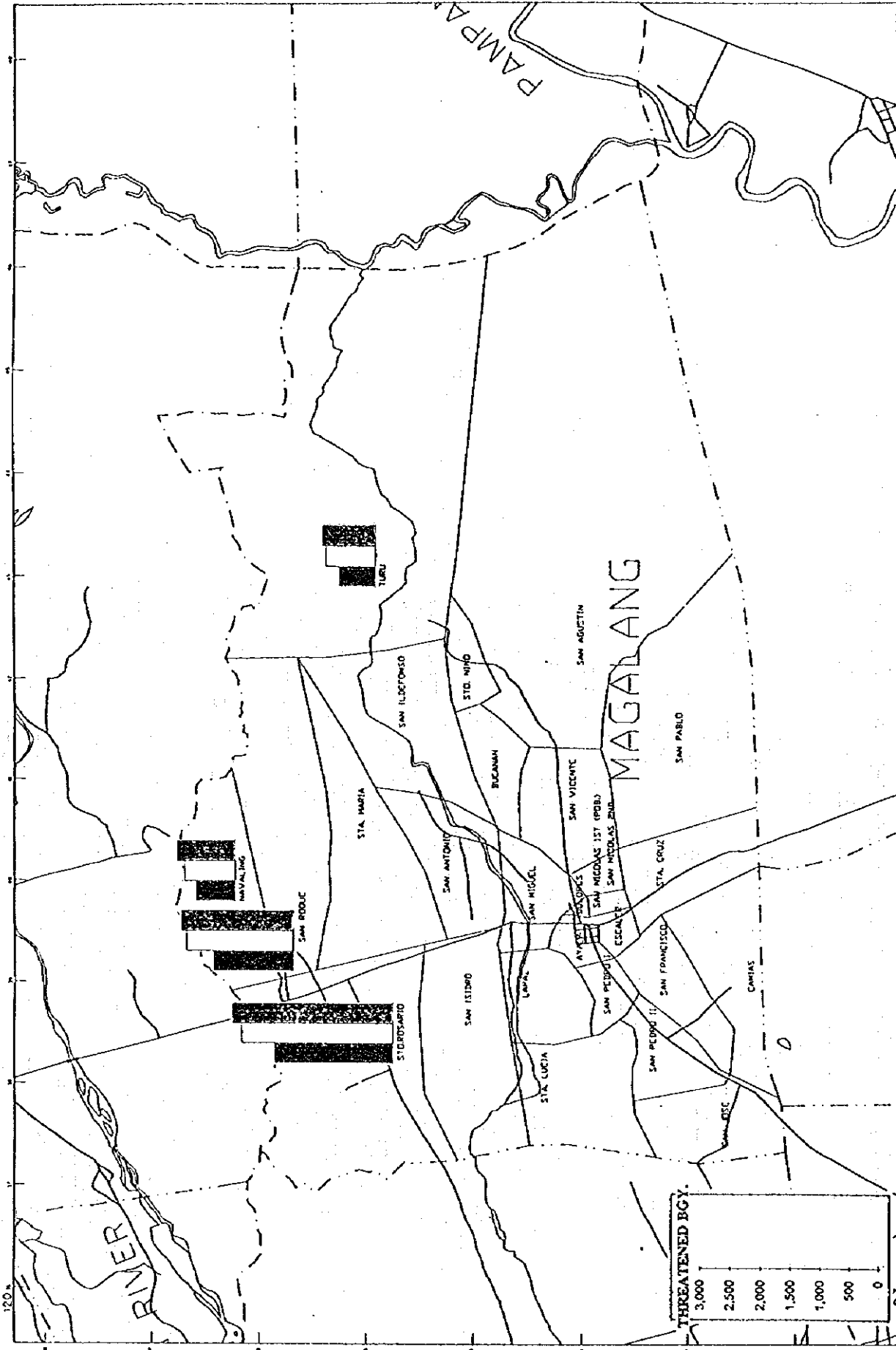
**POPULATION**  
1980, 1990, 1994  
MABALACAT, PAMPANGA

■ - 1980  
 ■ - 1990  
 ■ - 1994

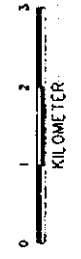


JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 STUDY ON FLOOD AND WIDE FLOW CONTROL FOR  
 SACOBA-BAMBAN/AHACAN RIVER'S DRAINING  
 FROM MT. PINATUBO

REFERENCE NO. \_\_\_\_\_



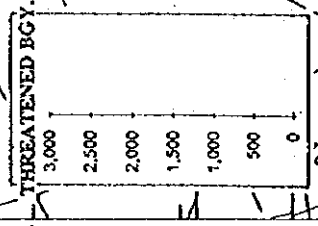
JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 STUDY ON FLOOD AND MUDFLOW CONTROL FOR  
 SACOBIA-BAGAN/ABACAN RIVERS DRAINING  
 FROM MT. PINATUBO



■ - 1980  
 □ - 1990  
 □ - 1994

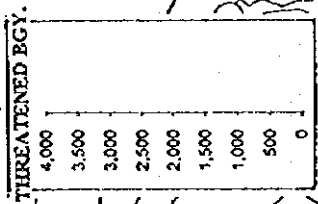
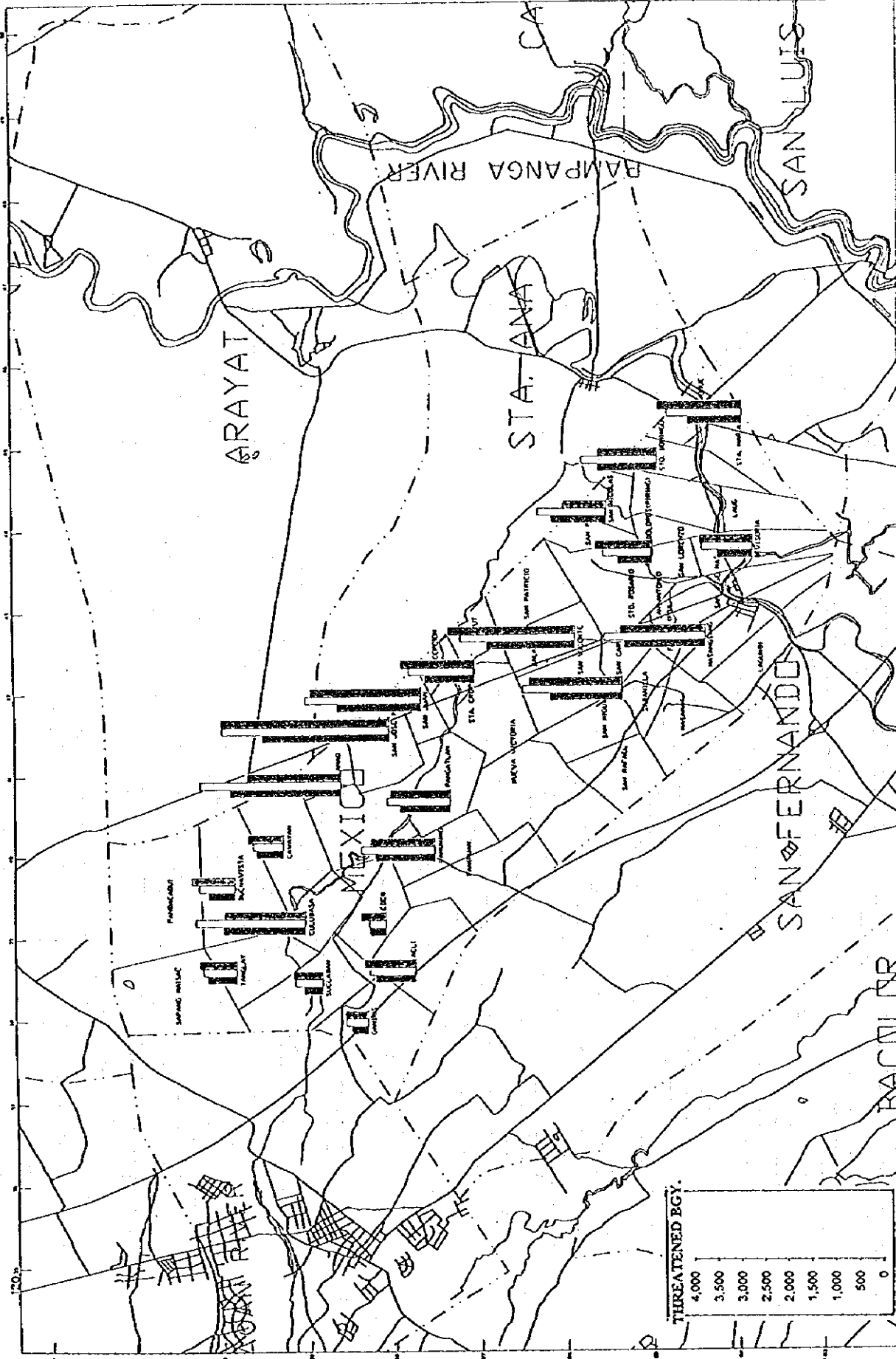
POPULATION  
 1980, 1990, 1994  
 MAGALANG, PAMPANGA

FIGURE NO.

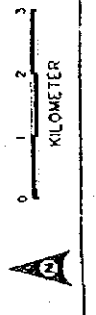




REFERENCE NO.



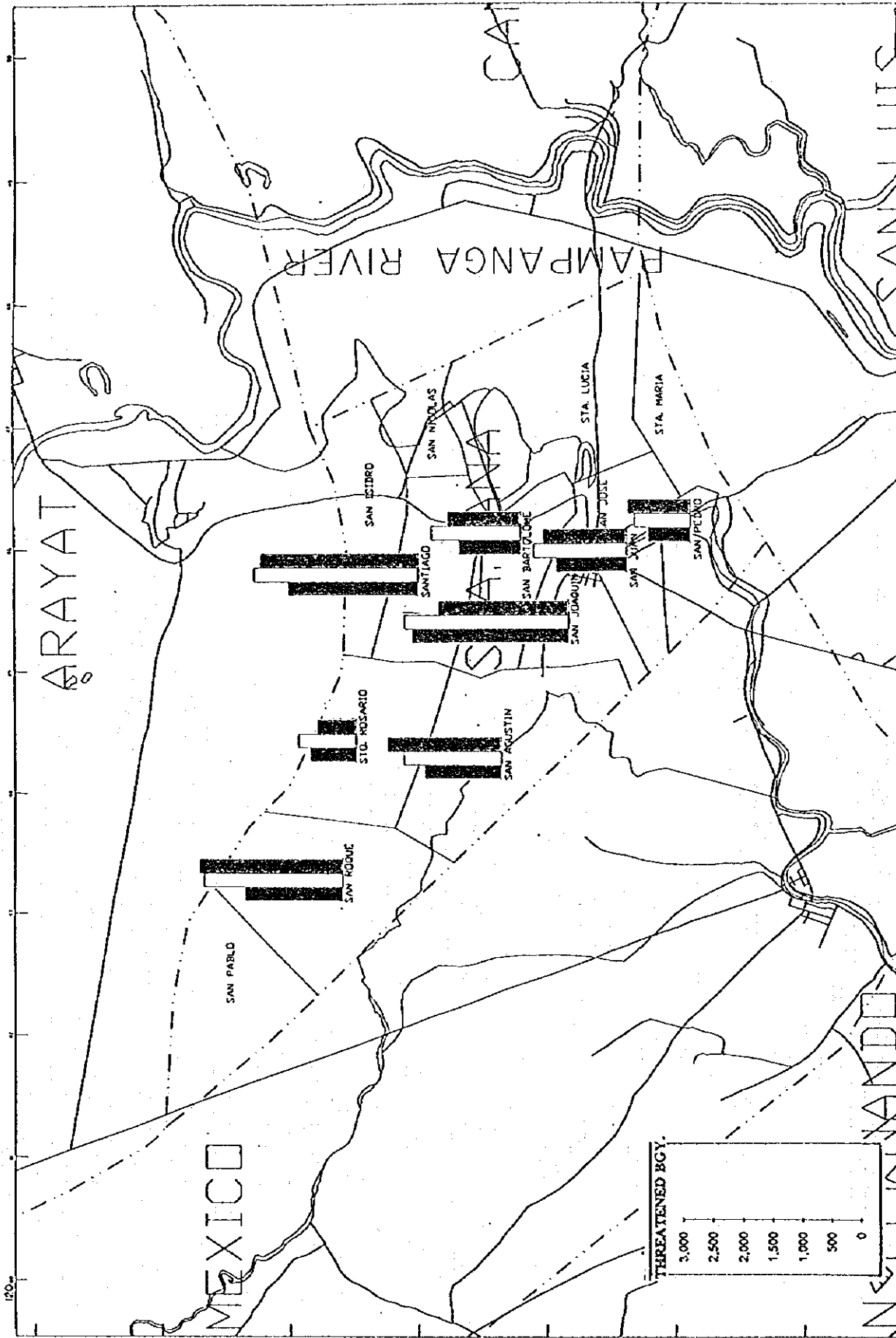
JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 STUDY ON FLOOD AND MUDFLOW CONTROL FOR  
 SACOBIA-BAMBAN/ATACAN RIVERS (WARANG,  
 FROM MT. PIRALURIO)



— 1980  
 □ 1990  
 □ 1994

POPULATION  
 1980, 1990, 1994  
 MEXICO, PAMPANGA

FIGURE NO.



JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 STUDY ON FLOOD AND WATERSHED CONTROL FOR  
 SACOBIA-BAMBALIBACAN RIVERS DRAINING  
 FROM MT. PINATUBO

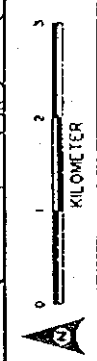
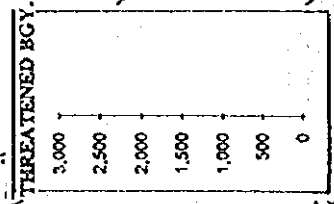
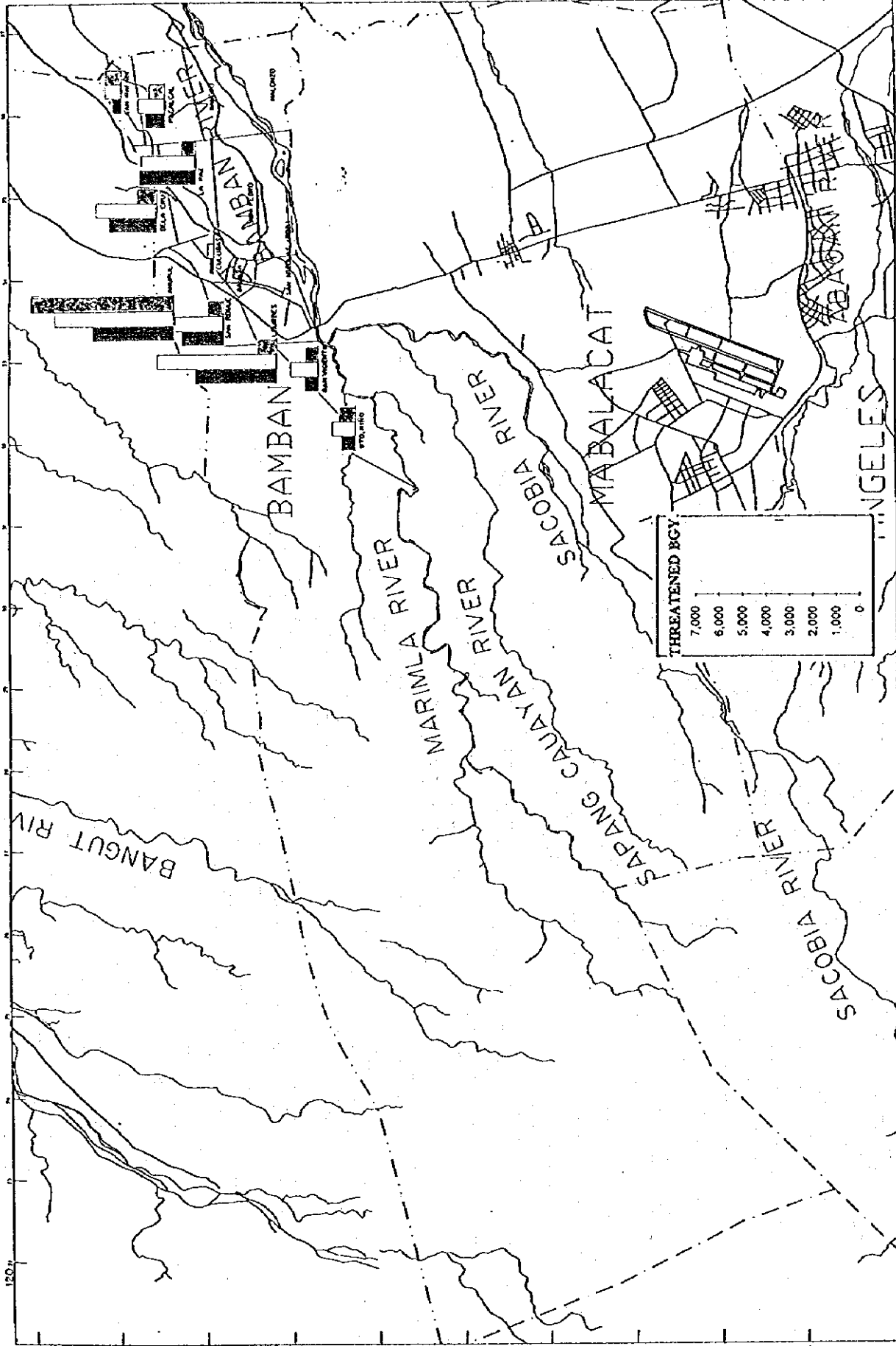


FIGURE NO. POPULATION  
 1980, 1990, 1994  
 STA. ANA, PAMPANGA





JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 STUDY ON FLOOD AND MUDFLOW CONTROL FOR  
 SACOBIA-BAMBAN/ADACAN RIVERS DRAINING  
 FROM MT. PINATUBO

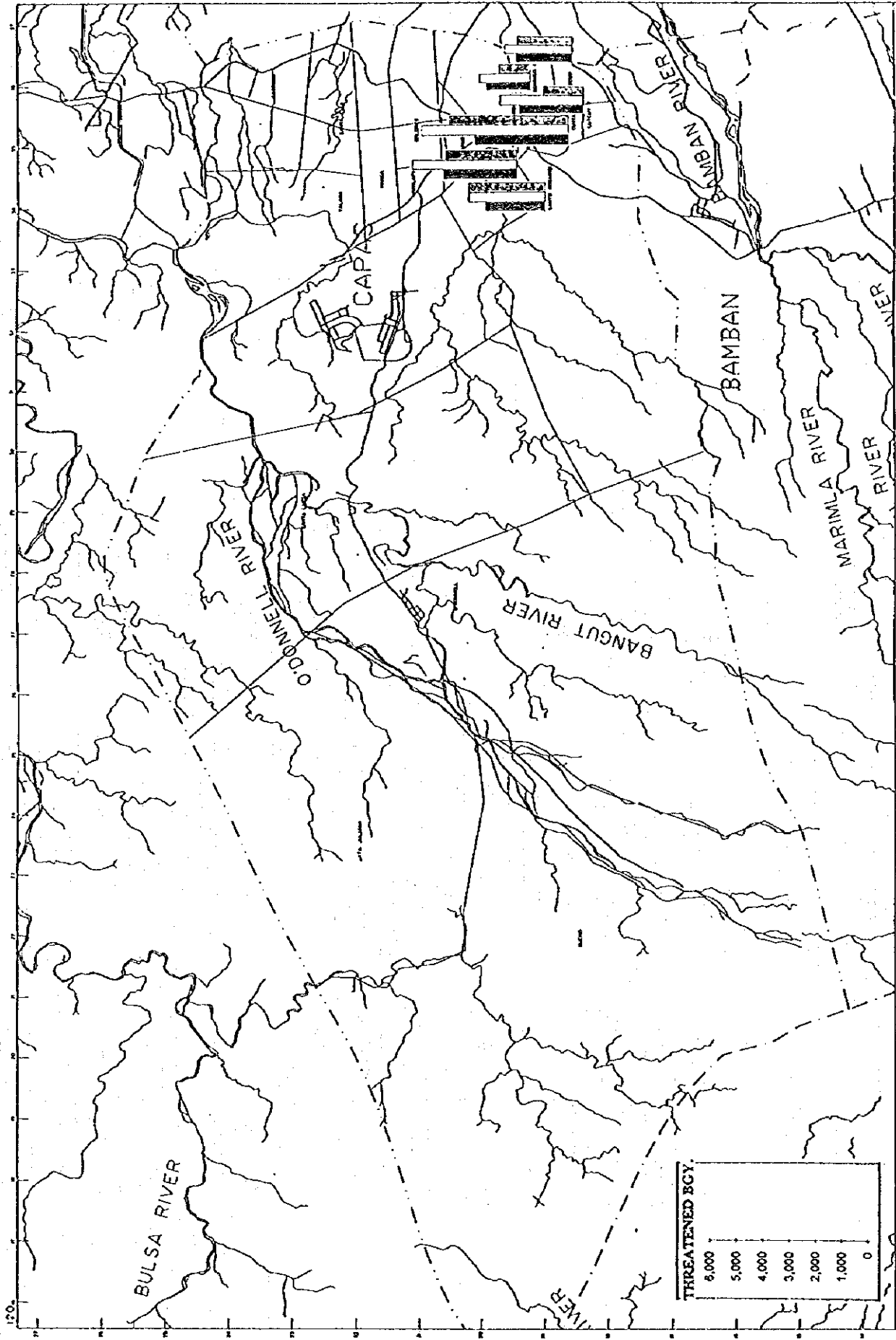
0 1 2 3  
 KILOMETER

THREATENED BGY  
 7,000  
 6,000  
 5,000  
 4,000  
 3,000  
 2,000  
 1,000  
 0

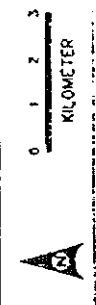
— 1980  
 — 1990  
 — 1994

POPULATION  
 1980, 1990, 1994  
 BAMBAN, TARLAC

FIGURE NO.



JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 STUDY ON FLOOD AND MIDDLE LOW CONTROL FOR  
 SACORBA-BAMBAN/JARACAN RIVERS, DRAINING  
 FROM MT. PINATUBO



— 1980  
 — 1990  
 — 1994

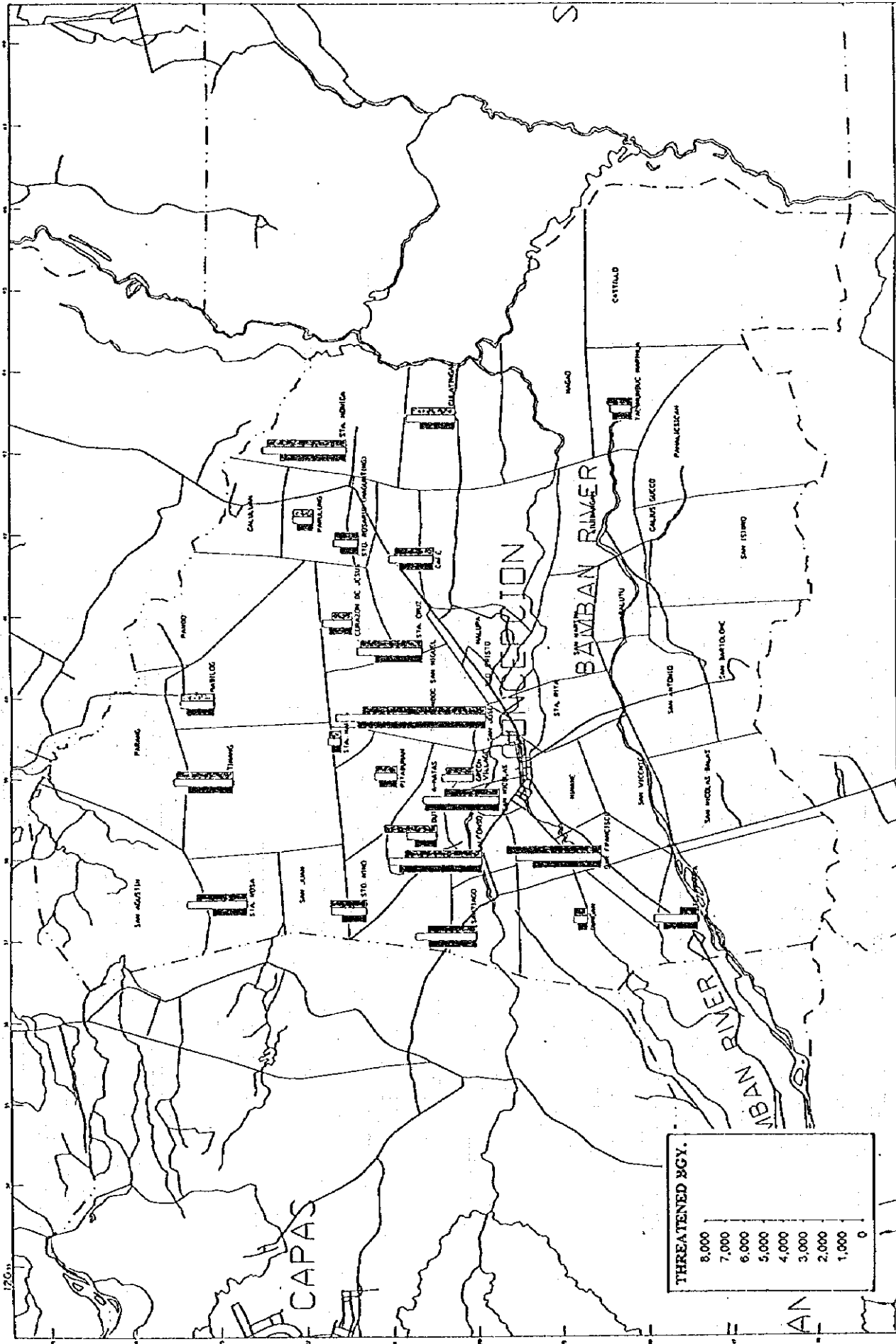
POPULATION  
 1980, 1990, 1994  
 CAPAS, TARLAC

FIGURE NO.

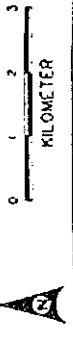




KULUPURUL NUL



JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
 STUDY ON FLOOD AND WINDSTORM CONTROL FOR  
 SACOBA-BAMBAN/BACRAN RIVERS CHAIRMS  
 FROM MT. PINA LUBO



▨ - 1980  
 □ - 1990  
 ▤ - 1994

**POPULATION**  
 1980, 1990, 1994  
 CONCEPCION, TARLAC

FIGURE NO.

Population as of August 1994 (1/5)

| City/<br>Municipality | Threatened Barangays (Total Enumeration) |            | Affected (Est. Total Based on 6% Sample Size) |                   | Unaffected (Est. Total Based on 6% Sample Size) |                       |                   |            |
|-----------------------|------------------------------------------|------------|-----------------------------------------------|-------------------|-------------------------------------------------|-----------------------|-------------------|------------|
|                       | No. of<br>H'holds                        | Population | Barangay                                      | No. of<br>H'holds | Population                                      | Barangay              | No. of<br>H'holds | Population |
| Angeles               |                                          |            |                                               |                   |                                                 |                       |                   |            |
|                       | 815                                      | 4,095      | Amsic                                         | 720               | 3,580                                           | Agapito Del Rosario   | 760               | 2,840      |
| Capaya                | 1,590                                    | 7,992      | Anunas                                        | 1,100             | 6,180                                           | Salibago              | 5,600             | 27,880     |
| Pandan                | 998                                      | 5,122      | Cuayan                                        | 200               | 1,080                                           | Cutud                 | 240               | 1,300      |
| Salapungan            | 258                                      | 1,341      | Claro M. Recto                                | 1,220             | 6,220                                           | Lourdes North West    | 2,620             | 11,980     |
| Tabuan                |                                          |            | Cutcut                                        | 3,260             | 16,540                                          | Lourdes Sur           | 1,240             | 5,800      |
|                       |                                          |            | Margot                                        | 460               | 2,220                                           | Lourdes Sur East      | 1,200             | 5,660      |
|                       |                                          |            | Pulung Maragul                                | 1,660             | 8,120                                           | Malabanas             | 2,620             | 12,140     |
|                       |                                          |            | San Nicolas                                   | 380               | 1,420                                           | Mining                | 200               | 780        |
|                       |                                          |            | Sapalibutad                                   | 540               | 2,900                                           | Pampang               | 1,080             | 4,920      |
|                       |                                          |            | Santa Trinidad                                | 1,100             | 5,460                                           | Pulungbulu            | 2,000             | 9,300      |
|                       |                                          |            |                                               |                   |                                                 | Pulung Cacutud        | 320               | 1,440      |
|                       |                                          |            |                                               |                   |                                                 | San Jose              | 1,300             | 6,420      |
|                       |                                          |            |                                               |                   |                                                 | Santa Teresita        | 2,200             | 9,360      |
|                       |                                          |            |                                               |                   |                                                 | Santo Cristo          | 720               | 3,140      |
|                       |                                          |            |                                               |                   |                                                 | Santo Domingo         | 2,660             | 11,560     |
|                       |                                          |            |                                               |                   |                                                 | Santo Rosario (Pop.)  | 820               | 4,000      |
|                       |                                          |            |                                               |                   |                                                 | Sapangbato            | 1,780             | 8,200      |
|                       |                                          |            |                                               |                   |                                                 | Virgen Delos Remedio  | 300               | 1,260      |
|                       |                                          |            |                                               |                   |                                                 | Ninoy Aquino (Mariso) | 2,200             | 9,700      |
| Sub Total             | (4) 3,661                                | 18,550     |                                               | (10) 10,640       | 53,720                                          |                       | (19) 29,860       | 137,680    |
| Arayat                |                                          |            |                                               |                   |                                                 |                       |                   |            |
|                       | 284                                      | 1,613      | Arenas                                        | 400               | 2,520                                           |                       |                   |            |
| Batasan               | 625                                      | 3,432      | Baliti                                        | 240               | 1,220                                           |                       |                   |            |
| Candating             | 319                                      | 1,781      | Buensuceso                                    | 100               | 520                                             |                       |                   |            |
| Laquious              | 337                                      | 2,001      | Gatawin                                       | 580               | 3,700                                           |                       |                   |            |
| Mapalad               | 402                                      | 1,984      | Guernasan                                     | 580               | 3,020                                           |                       |                   |            |
| Poblacion             | 210                                      | 1,079      | La Paz (Turu)                                 | 100               | 580                                             |                       |                   |            |
| San Agustin Sur       | 615                                      | 3,550      | Lacmit                                        | 620               | 3,440                                           |                       |                   |            |
| San Mateo             | 386                                      | 2,165      | Manga-Cacutud                                 | 1,780             | 8,840                                           |                       |                   |            |
| Santa Lucia Cupang    | 311                                      | 1,698      | Panliniang                                    | 280               | 1,620                                           |                       |                   |            |
| Santa Lucia Matamo    | 310                                      | 1,689      | Paralaya                                      | 220               | 920                                             |                       |                   |            |
| Santo Niño Tabuan     |                                          |            |                                               |                   |                                                 |                       |                   |            |

NOTE: The 1994 population and households of affected and unaffected barangays were estimated based on 5% sampling survey of households.

Threatened barangays refer to barangays listed as "affected barangays" in tender document. Affected barangays refer to barangays listed by PHILVOLCS as affected by 1991-1993 pyroclastic flow, lahar deposits, and lahar dammed lake/ponded water. These were originally listed as "unaffected barangays" in tender documents. Unaffected barangays refer to barangays listed as "unaffected barangays" in tender documents.

**Population as of August 1994 (2/5)**

| City/<br>Municipality | Threatened Barangays (Total Enumeration) |               | Affected (Est. Total Based on 5% Sample Size) |                   | Unaffected (Est. Total Based on 5% Sample Size) |                                   |
|-----------------------|------------------------------------------|---------------|-----------------------------------------------|-------------------|-------------------------------------------------|-----------------------------------|
|                       | No of<br>H' Holds                        | Population    | Barangay                                      | No of<br>H' Holds | Population                                      | Barangay                          |
| Suclayin              | 333                                      | 1,941         |                                               |                   |                                                 | Piayang-Luma<br>780<br>4,760      |
| Telapayung            | 326                                      | 1,787         |                                               |                   |                                                 | San Agustin Norte<br>440<br>2,860 |
|                       |                                          |               |                                               |                   |                                                 | San Antonio<br>340<br>1,900       |
|                       |                                          |               |                                               |                   |                                                 | San Jose Mesulo<br>660<br>3,720   |
|                       |                                          |               |                                               |                   |                                                 | San Juan Bano<br>840<br>4,660     |
|                       |                                          |               |                                               |                   |                                                 | San Nicolas<br>480<br>2,340       |
|                       |                                          |               |                                               |                   |                                                 | San Roque (Bitas)<br>480<br>3,220 |
|                       |                                          |               |                                               |                   |                                                 | Kaledian (Camba)<br>500<br>2,920  |
| <b>Sub Total</b>      | <b>(12) 4,458</b>                        | <b>24,720</b> |                                               | <b>(18) 9,420</b> | <b>52,760</b>                                   |                                   |
| Dolores               | 49                                       | 256           | Cacutud                                       | 200               | 840                                             | Atlu Bola<br>200<br>1,060         |
| Mamatitang            | 233                                      | 1,291         | Calumpang *                                   | 0                 | 0                                               | Bical<br>480<br>2,380             |
| San Joaquin           | 902                                      | 4,402         | Macapagal Village                             | 140               | 720                                             | Bundagul<br>100<br>500            |
| Sapangbalen *         | 0                                        | 0             | Marcos Village                                | 100               | 500                                             | Camatchiles<br>600<br>2,920       |
| Tabun *               | 0                                        | 0             | Santa Ines                                    | 780               | 3,580                                           | Dapdap<br>120<br>500              |
|                       |                                          |               |                                               |                   |                                                 | Dau<br>10,360<br>48,940           |
|                       |                                          |               |                                               |                   |                                                 | Duquit<br>420<br>1,940            |
|                       |                                          |               |                                               |                   |                                                 | Lakandula<br>1,700<br>8,620       |
|                       |                                          |               |                                               |                   |                                                 | Mabiga<br>1,940<br>9,580          |
|                       |                                          |               |                                               |                   |                                                 | Mangalit<br>100<br>620            |
|                       |                                          |               |                                               |                   |                                                 | Mawake<br>80<br>520               |
|                       |                                          |               |                                               |                   |                                                 | Paralayunan<br>100<br>520         |
|                       |                                          |               |                                               |                   |                                                 | Poblacion<br>300<br>1,840         |
|                       |                                          |               |                                               |                   |                                                 | San Francisco<br>2,020<br>9,280   |
|                       |                                          |               |                                               |                   |                                                 | Santa Maria<br>280<br>1,420       |
|                       |                                          |               |                                               |                   |                                                 | Santo Rosario<br>400<br>2,080     |
|                       |                                          |               |                                               |                   |                                                 | Sapang Biabas<br>200<br>1,060     |
| <b>Sub Total</b>      | <b>(5) 1,184</b>                         | <b>5,949</b>  |                                               | <b>(5) 1,220</b>  | <b>5,640</b>                                    | <b>(17) 19,400</b>                |
| Navaling              | 163                                      | 985           | none                                          |                   |                                                 | Camias<br>140<br>760              |
| San Roque             | 321                                      | 1,879         |                                               |                   |                                                 | Dolores<br>140<br>560             |
| Santo Rosario         | 488                                      | 2,690         |                                               |                   |                                                 | Escaler<br>180<br>980             |
| Turu                  | 140                                      | 896           |                                               |                   |                                                 | La Paz<br>140<br>800              |
|                       |                                          |               |                                               |                   |                                                 | San Agustin<br>240<br>1,500       |
|                       |                                          |               |                                               |                   |                                                 | San Antonio<br>140<br>840         |
|                       |                                          |               |                                               |                   |                                                 | San Francisco<br>440<br>2,640     |

\* Lahar - covered, most residents moved to resettlement sites.



Population as of August 1994 (4/5)

| City/<br>Municipality | Threatened Barangays (Total Enumeration) |                   | Affected (Est. Total Based on 5% Sample Size) |                   | Unaffected (Est. Total Based on 5% Sample Size) |                |
|-----------------------|------------------------------------------|-------------------|-----------------------------------------------|-------------------|-------------------------------------------------|----------------|
|                       | Barangay                                 | No of<br>H' Holds | Population                                    | Barangay          | No of<br>H' Holds                               | Population     |
|                       | Santo Domingo                            | 255               | 1,253                                         |                   |                                                 |                |
|                       | Sucababn                                 | 102               | 622                                           |                   |                                                 |                |
|                       | Tanglay (Tangle)                         | 140               | 779                                           |                   |                                                 |                |
| <b>Sub Total</b>      |                                          | <b>(22) 5,585</b> | <b>31,697</b>                                 |                   | <b>(9) 3,300</b>                                | <b>18,620</b>  |
|                       | San Agustin                              | 339               | 1,931                                         | none              |                                                 |                |
|                       | San Bartolome                            | 224               | 1,242                                         |                   |                                                 |                |
|                       | San Joaquin (Fob.)                       | 368               | 2,198                                         |                   |                                                 |                |
|                       | San Juan                                 | 259               | 1,404                                         |                   |                                                 |                |
|                       | San Pedro                                | 160               | 1,047                                         |                   |                                                 |                |
|                       | San Roque                                | 393               | 2,412                                         |                   |                                                 |                |
|                       | Santiago                                 | 471               | 2,647                                         |                   |                                                 |                |
|                       | Santo Rosario                            | 113               | 663                                           |                   |                                                 |                |
| <b>Sub Total</b>      |                                          | <b>(8) 2,327</b>  | <b>13,544</b>                                 |                   | <b>(6) 3,620</b>                                | <b>20,120</b>  |
| <b>Pampang Total</b>  |                                          | <b>18,327</b>     | <b>100,910</b>                                |                   | <b>15,160</b>                                   | <b>77,980</b>  |
|                       | Anupul                                   | 1,239             | 6,017                                         | Banaba            | 220                                             | 820            |
|                       | Culubasa *                               | 3                 | 17                                            | Bangu *           | 0                                               | 0              |
|                       | Dela Cruz                                | 166               | 820                                           | Malonzo *         | 0                                               | 0              |
|                       | La Paz                                   | 123               | 602                                           | San Nicolas (Pob) | 1,140                                           | 5,780          |
|                       | Lourdes                                  | 163               | 765                                           | San Pedro *       | 0                                               | 0              |
|                       | V. de los Remedios (Pacalcal)            | 128               | 666                                           |                   |                                                 |                |
|                       | San Rafael                               | 123               | 678                                           |                   |                                                 |                |
|                       | San Roque                                | 140               | 641                                           |                   |                                                 |                |
|                       | San Vicente                              | 120               | 534                                           |                   |                                                 |                |
|                       | Santo Niño                               | 150               | 668                                           |                   |                                                 |                |
| <b>Sub Total</b>      |                                          | <b>(10) 2,355</b> | <b>11,408</b>                                 |                   | <b>(6) 1,360</b>                                | <b>6,600</b>   |
| <b>Capas</b>          | Cubcub (Pob.)                            | 416               | 2,119                                         | Aranguren         | 820                                             | 3,600          |
|                       | Cutcut 1st                               | 887               | 4,550                                         |                   |                                                 |                |
|                       | Cutcut 2nd                               | 300               | 1,528                                         |                   |                                                 |                |
|                       | Sto. Domingo 1st                         | 268               | 1,192                                         |                   |                                                 |                |
|                       |                                          |                   |                                               | Maruglu           | 200                                             | 1,340          |
| <b>Sub Total</b>      |                                          |                   |                                               |                   | <b>(6) 3,620</b>                                | <b>361,480</b> |

\* Lahar - covered barangays most residents moved to resettlement sites.

Population as of August 1994 (5/5)

| City/<br>Municipality | Threatened Barangays (Total Enumeration) |                | Affected (Est. Total Based on 5% Sample Size) |                   | Unaffected (Est. Total Based on 5% Sample Size) |                      |
|-----------------------|------------------------------------------|----------------|-----------------------------------------------|-------------------|-------------------------------------------------|----------------------|
|                       | No of<br>H'holds                         | Population     | Barangay                                      | No of<br>H'holds  | Population                                      | Barangay             |
| Sto. Domingo 2nd      | 555                                      | 2,740          |                                               |                   |                                                 |                      |
| Sto. Rosario          | 590                                      | 2,918          |                                               |                   |                                                 |                      |
| <b>Sub Total</b>      | <b>(6) 3,016</b>                         | <b>15,047</b>  |                                               | <b>(1) 820</b>    | <b>3,600</b>                                    | <b>(1) 200</b>       |
| Concepcion            | 365                                      | 1,983          | Balutu                                        | 700               | 4,380                                           | Caluluan             |
| Corazon De Jesus      | 204                                      | 1,012          | Calius                                        | 240               | 1,320                                           | Pando                |
| Culiatangan           | 399                                      | 2,229          | Castillo                                      | 420               | 2,180                                           | San Juan (Castro)    |
| Dungan                | 130                                      | 673            | Lilibangan                                    | 140               | 700                                             | Sto. Cristo          |
| Jefmin (Dutung-A-Ma   | 512                                      | 2,683          | Magao                                         | 460               | 2,740                                           | Talimunduc San Migue |
| Mabilog               | 364                                      | 1,691          | Malupa                                        | 280               | 1,460                                           |                      |
| Parulung              | 182                                      | 989            | Minane                                        | 720               | 4,420                                           |                      |
| Pitabunan             | 222                                      | 1,078          | Panaticican                                   | 240               | 1,240                                           |                      |
| San Francisco         | 942                                      | 4,839          | San Antonio                                   | 520               | 3,380                                           |                      |
| San Jose (Pop.)       | 1,195                                    | 6,248          | San Bartolome                                 | 360               | 2,040                                           |                      |
| San Nicolas (Pop.)    | 591                                      | 2,797          | San Isidro (Alme                              | 480               | 2,560                                           |                      |
| Santo Niño            | 356                                      | 1,808          | San Martin                                    | 240               | 1,000                                           |                      |
| Santa Cruz            | 547                                      | 3,109          | San Nicolas Bala                              | 480               | 2,860                                           |                      |
| Santa Maria           | 119                                      | 567            | Santa Rita                                    | 960               | 4,080                                           |                      |
| Santa Monica          | 747                                      | 3,980          | San Vicente                                   | 240               | 1,340                                           |                      |
| Santa Rosa            | 494                                      | 2,523          |                                               |                   |                                                 |                      |
| Santiago              | 459                                      | 2,482          |                                               |                   |                                                 |                      |
| Sta. Rosario (Magun   | 236                                      | 1,186          |                                               |                   |                                                 |                      |
| Talimunduc Marimla    | 223                                      | 1,231          |                                               |                   |                                                 |                      |
| Telabanca             | 174                                      | 946            |                                               |                   |                                                 |                      |
| Tinang                | 559                                      | 2,866          |                                               |                   |                                                 |                      |
| Alfonso               | 763                                      | 3,910          |                                               |                   |                                                 |                      |
| Green Village         | 277                                      | 1,395          |                                               |                   |                                                 |                      |
| <b>Sub Total</b>      | <b>(23) 10,060</b>                       | <b>52,225</b>  |                                               | <b>(15) 6,480</b> | <b>35,700</b>                                   | <b>(5) 2,360</b>     |
| <b>Tarlac Total</b>   | <b>15,431</b>                            | <b>78,680</b>  |                                               | <b>8,660</b>      | <b>45,900</b>                                   | <b>2,560</b>         |
| <b>Grand Total</b>    | <b>33,758</b>                            | <b>179,590</b> |                                               | <b>23,820</b>     | <b>123,880</b>                                  | <b>75,320</b>        |
|                       |                                          |                |                                               |                   |                                                 | <b>12,620</b>        |
|                       |                                          |                |                                               |                   |                                                 | <b>13,960</b>        |
|                       |                                          |                |                                               |                   |                                                 | <b>375,440</b>       |

**Number of Aeta Families in Tarlac and Pampanga (1/2)  
As of August 1994**

| PROVINCE/MUNICIPALITY<br>SITIO                             | NUMBER       |
|------------------------------------------------------------|--------------|
| <b>Total in Resettlement Site and Off-Site Settlements</b> | <b>5,575</b> |
| <b><u>In Resettlement Site:</u></b>                        |              |
| <b>Pampanga and Tarlac Total</b>                           | <b>1,521</b> |
| <b>Pampanga</b>                                            | <b>533</b>   |
| Nabuklod                                                   | 257          |
| Camias                                                     | 127          |
| Villa Maria                                                | 149          |
| <b>Tarlac</b>                                              | <b>988</b>   |
| Dueg                                                       | 547          |
| Kalangitan                                                 | 441          |
| <b><u>Off-site Settlements:</u></b>                        |              |
| <b>Pampanga Total</b>                                      | <b>1,550</b> |
| <b>Angeles City</b>                                        | <b>91</b>    |
| Sapang - Bato                                              | 91           |
| <b>Floridablanca</b>                                       | <b>339</b>   |
| Camatchile                                                 | 106          |
| Consuelo                                                   | 8            |
| Malabne                                                    | 125          |
| Maivacat                                                   | 92           |
| Palmayo                                                    | 8            |
| <b>Mabalacat</b>                                           | <b>251</b>   |
| Calumpang                                                  | 115          |
| Pulung Lupa                                                | 136          |
| <b>Magalang</b>                                            | <b>291</b>   |
| Ayala Tent City                                            | 155          |
| P.A.C                                                      | 136          |
| <b>Porac</b>                                               | <b>578</b>   |
| Cayucut                                                    | 52           |
| Diaz                                                       | 30           |
| Liplip                                                     | 62           |
| Planas                                                     | 320          |
| Sapang Uwak                                                | 68           |
| Sitio Patal                                                | 46           |
| <b>Tarlac Total</b>                                        | <b>2,504</b> |
| <b>Bamban</b>                                              | <b>303</b>   |
| Baras                                                      | 69           |
| Burog                                                      | 28           |
| Malasa                                                     | 43           |
| Mataba                                                     | 34           |
| Matagpo                                                    | 56           |
| Sta. Rosa                                                  | 18           |
| San Vicente                                                | 30           |

**Number of Aeta Families in Tarlac and Pampanga (2/2)  
As of August 1994**

| PROVINCE/MUNICIPALITY<br>SITIO | NUMBER     |
|--------------------------------|------------|
| <b>San Clemente</b>            | <b>271</b> |
| Sitio Kayapan                  | 56         |
| Labney                         | 97         |
| Lawak Langka                   | 50         |
| Padla                          | 68         |
| <b>Capas</b>                   | <b>980</b> |
| Alunan                         | 74         |
| Batong - Gatang                | 37         |
| Bilad                          | 40         |
| Biyayao                        | 107        |
| Bot - ol                       | 36         |
| Bulacan                        | 32         |
| Bunga                          | 32         |
| Doray                          | 44         |
| Dueg                           | 193        |
| Maalyabon                      | 38         |
| Malabayuhan                    | 35         |
| Manibukyot                     | 69         |
| Pantol                         | 34         |
| Patal Pinto                    | 9          |
| Pilien                         | 41         |
| Pisa - pungaw                  | 61         |
| Sta. Monica                    | 26         |
| Yawka                          | 72         |
| <b>San Jose</b>                | <b>852</b> |
| Agus                           | 58         |
| Dirita                         | 178        |
| Maamot Proper                  | 129        |
| Pisapungaw                     | 72         |
| San Pedro                      | 138        |
| Socorro                        | 58         |
| Tala                           | 70         |
| Tangan - tangan                | 149        |
| <b>Tarlac</b>                  | <b>98</b>  |
| Paquillao                      | 98         |

*Source of Data : Office of Northern Cultural Communities  
(ONCC), San Fernando, Pampanga*