



**JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
NATIONAL ECONOMIC DEVELOPMENT AUTHORITY (NEDA)**



**ROADMAP FOR TRANSPORT INFRASTRUCTURE DEVELOPMENT
FOR METRO MANILA AND ITS SURROUNDING AREAS
(REGION III & REGION IV-A)**

FINAL REPORT

**ATLAS
FOR METRO MANILA, REGION III & REGION IV-A**

March 2014

ALMEC CORPORATION

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ABBREVIATIONS

| | |
|------|---|
| ADB | Asian Development Bank |
| DOTC | Department of Transportation and Communications |
| JBIC | Japan Bank for International Cooperation |
| JICA | Japan International Cooperation Agency |
| MGB | Mines and Geosciences Bureau |
| MMDA | Metropolitan Manila Development Authority |
| NCR | National Capital Region |
| NSCB | National Statistical Coordination Board |
| NSO | National Statistics Office |

1 INTRODUCTION

This atlas is a collection of maps and tables created in the project entitled “Roadmap for Transport Infrastructure Development for Metro Manila and its Surrounding Areas (Region III & Region IV-A)” which received funding from the Japan International Cooperation Agency (JICA) and implemented by ALMEC Corporation for the Philippines’ National Economic Development Authority (NEDA).

Using geographic information system (GIS), the maps illustrate the administrative divisions, population, socioeconomic situation, hazard risks, and transportation network in the Greater Capital Region (GCR), comprising the National Capital Region (Metropolitan Manila), Region III, and Region IV-A. The baseline data used to create the maps were collected by the JICA Study Team from various agencies and statistical yearbooks published by the government. This atlas can serve as valuable input to the next planning stage for the sustainable development of Metro Manila and surrounding areas.

2 ADMINISTRATIVE DIVISIONS

2.1 Administrative Divisions

The administrative divisions of the Philippines are composed of regions, provinces, cities, municipalities, and barangays. The barangay is the smallest administrative unit of Philippines. Cities and municipalities are classified according to income class (see Table 2.1).

Table 2.1 Classification of Cities and Municipalities by Income¹

| Class | City Income | Municipal Income |
|--------|--|--|
| First | PHP400 million or more | PHP55 million or more |
| Second | PHP320 million to less than PHP400 million | PHP45 million to less than PHP55 million |
| Third | PHP240 million to less than PHP320 million | PHP35 million to less than PHP45 million |
| Fourth | PHP160 million to less than PHP240 million | PHP25 million to less than PHP35 million |
| Fifth | PHP80 million to less than PHP160 million | PHP15 million to less than PHP25 million |
| Sixth | Below PHP80 million | Below PHP15 million |

¹ Average annual income.

Source: National Statistical Coordination Board (NSCB).

Table 2.2 Cities and Municipalities in the Greater Capital Region

| Region/Province | Name of City/Municipality | Category | Income Class | Land Area (ha) | Population in 2010 |
|--------------------------------|---------------------------|--------------|--------------|----------------|--------------------|
| National Capital Region | | | | | |
| | Manila | City | Special | 2,498 | 1,652,171 |
| | Quezon City | City | Special | 17,171 | 2,761,720 |
| | Caloocan City | City | 1st | 5,580 | 1,489,040 |
| | City of Las Piñas | City | 1st | 3,269 | 552,573 |
| | City of Makati | City | 1st | 2,157 | 476,719 |
| | City of Malabon | City | 1st | 1,571 | 353,337 |
| | City of Mandaluyong | City | 1st | 929 | 328,699 |
| | City of Marikina | City | 1st | 2,152 | 424,150 |
| | City of Muntinlupa | City | 1st | 3,975 | 459,941 |
| | City of Navotas | City | 2nd | 894 | 249,131 |
| | City of Parañaque | City | 1st | 4,657 | 588,126 |
| | Pasay City | City | 1st | 1,397 | 392,869 |
| | City of Pasig | City | 1st | 4,846 | 669,773 |
| | City of San Juan | City | 1st | 595 | 121,430 |
| | Taguig City | City | 1st | 4,521 | 695,793 |
| | Valenzuela | City | 1st | 4,702 | 575,356 |
| | Pateros | Municipality | 1st | 1,040 | 64,147 |
| Region III | | | | | |
| Aurora | Baler (capital) | Municipality | 4th | 9,255 | 36,010 |
| | Casiguran | Municipality | 2nd | 71,543 | 23,865 |
| | Maria Aurora | Municipality | 2nd | 42,619 | 38,128 |
| | San Luis | Municipality | 2nd | 62,386 | 25,276 |
| | Dilasag | Municipality | 3rd | 30,625 | 15,683 |
| | Dingalan | Municipality | 3rd | 30,455 | 23,554 |
| | Dipaculao | Municipality | 3rd | 36,164 | 27,729 |
| | Dinalungan | Municipality | 4th | 31,685 | 10,988 |
| Bataan | Balanga (capital) | City | 4th | 11,163 | 87,920 |
| | Limay | Municipality | 1st | 10,360 | 57,207 |
| | Mariveles | Municipality | 1st | 15,390 | 112,707 |
| | Orani | Municipality | 1st | 6,490 | 61,099 |
| | Orion | Municipality | 2nd | 6,541 | 51,454 |
| | Abucay | Municipality | 3rd | 7,972 | 37,719 |

| Region/Province | Name of City/Municipality | Category | Income Class | Land Area (ha) | Population in 2010 |
|-----------------|---------------------------|--------------|--------------|----------------|--------------------|
| | Bagac | Municipality | 3rd | 23,120 | 25,568 |
| | Morong | Municipality | 3rd | 21,920 | 26,171 |
| | Pilar | Municipality | 3rd | 3,760 | 39,787 |
| | Samal | Municipality | 4th | 5,630 | 33,578 |
| Bulacan | Malolos (capital) | City | 3rd | 6,725 | 234,945 |
| | San Jose Del Monte | City | 1st | 10,553 | 454,553 |
| | Meycauayan | City | 3rd | 3,210 | 199,154 |
| | Angat | Municipality | 1st | 7,400 | 55,332 |
| | Balagtas (Bigaa) | Municipality | 1st | 2,866 | 65,440 |
| | Baliuag | Municipality | 1st | 4,505 | 143,565 |
| | Bocaue | Municipality | 1st | 3,187 | 106,407 |
| | Bulacan | Municipality | 1st | 7,290 | 71,751 |
| | Calumpit | Municipality | 1st | 5,625 | 101,068 |
| | Dona Remedios Trinidad | Municipality | 1st | 93,296 | 19,878 |
| | Guiguinto | Municipality | 1st | 2,750 | 90,507 |
| | Hagonoy | Municipality | 1st | 10,310 | 125,689 |
| | Marilao | Municipality | 1st | 3,374 | 185,624 |
| | Norzagaray | Municipality | 1st | 30,977 | 103,095 |
| | Plaridel | Municipality | 1st | 3,244 | 101,441 |
| | Pulilan | Municipality | 1st | 3,989 | 85,844 |
| | San Ildefonso | Municipality | 1st | 12,871 | 95,000 |
| | San Miguel | Municipality | 1st | 23,140 | 142,854 |
| | San Rafael | Municipality | 1st | 15,243 | 85,921 |
| | Santa Maria | Municipality | 1st | 9,092 | 218,351 |
| | Bustos | Municipality | 2nd | 6,999 | 62,415 |
| | Obando | Municipality | 2nd | 5,210 | 58,009 |
| | Pandi | Municipality | 2nd | 3,120 | 66,650 |
| | Paombong | Municipality | 3rd | 4,634 | 50,940 |
| Nueva Ecija | Palayan (capital) | City | 5th | 10,140 | 37,219 |
| | Cabanatuan | City | 1st | 28,275 | 272,676 |
| | San Jose | City | 3rd | 18,599 | 129,424 |
| | Gapan | City | 4th | 16,444 | 101,488 |
| | Science City of Munoz | City | 4th | 16,305 | 75,462 |
| | Cabiao | Municipality | 1st | 11,183 | 72,081 |
| | Carranglan | Municipality | 1st | 70,531 | 37,124 |
| | Cuyapo | Municipality | 1st | 21,573 | 59,396 |
| | General Tinio (Papaya) | Municipality | 1st | 53,308 | 42,634 |
| | Guimba | Municipality | 1st | 24,529 | 104,894 |
| | Pantabangan | Municipality | 1st | 39,256 | 27,353 |
| | San Antonio | Municipality | 1st | 15,356 | 73,074 |
| | San Leonardo | Municipality | 1st | 15,190 | 58,120 |
| | Santa Rosa | Municipality | 1st | 14,715 | 64,503 |
| | Talavera | Municipality | 1st | 14,092 | 112,515 |
| | Aliaga | Municipality | 2nd | 9,004 | 57,805 |
| | Bongabon | Municipality | 2nd | 28,695 | 59,343 |
| | Jaen | Municipality | 2nd | 8,546 | 67,057 |
| | Rizal | Municipality | 2nd | 12,055 | 57,145 |
| | San Isidro | Municipality | 2nd | 5,649 | 47,800 |
| | Gabaldon | Municipality | 3rd | 24,288 | 32,246 |
| | Laur | Municipality | 3rd | 29,588 | 32,205 |
| | Lupao | Municipality | 3rd | 12,133 | 40,931 |
| | Santa Domingo | Municipality | 3rd | 7,488 | 50,983 |
| | Zaragoza | Municipality | 3rd | 7,202 | 44,124 |
| | General Mamerto Natividad | Municipality | 4th | 11,800 | 36,720 |
| | Licab | Municipality | 4th | 6,737 | 26,187 |
| | Llanera | Municipality | 4th | 11,444 | 36,200 |
| | Penaranda | Municipality | 4th | 9,500 | 27,410 |

| Region/Province | Name of City/Municipality | Category | Income Class | Land Area (ha) | Population in 2010 | |
|-----------------|---------------------------|------------------|--------------|----------------|--------------------|---------|
| | Quezon | Municipality | 4th | 6,853 | 36,660 | |
| | Talugtug | Municipality | 4th | 9,395 | 21,291 | |
| | Nampicuan | Municipality | 5th | 5,260 | 13,303 | |
| Pampanga | San Fernando (capital) | City | 1st | 6,774 | 285,912 | |
| | Angeles | City | 1st | 6,027 | 326,336 | |
| | Mabalacat | City | - | 8,318 | 215,610 | |
| | Apalit | Municipality | 1st | 6,147 | 101,537 | |
| | Arayat | Municipality | 1st | 13,448 | 121,348 | |
| | Candaba | Municipality | 1st | 17,640 | 102,399 | |
| | Floridablanca | Municipality | 1st | 17,548 | 110,846 | |
| | Guagua | Municipality | 1st | 4,867 | 111,199 | |
| | Lubao | Municipality | 1st | 15,577 | 150,843 | |
| | Macabebe | Municipality | 1st | 10,516 | 70,777 | |
| | Magalang | Municipality | 1st | 9,732 | 103,597 | |
| | Mexico | Municipality | 1st | 11,741 | 146,851 | |
| | Porac | Municipality | 1st | 31,400 | 111,441 | |
| | Masantol | Municipality | 2nd | 4,825 | 52,407 | |
| | Bacolor | Municipality | 3rd | 7,170 | 31,508 | |
| | San Luis | Municipality | 3rd | 5,683 | 49,311 | |
| | Santa Ana | Municipality | 3rd | 3,984 | 52,001 | |
| | Minalin | Municipality | 4th | 4,827 | 44,001 | |
| | Santa Rita | Municipality | 4th | 2,976 | 38,762 | |
| | Santo Tomas | Municipality | 4th | 2,130 | 38,062 | |
| | San Simon | Municipality | - | 5,737 | 48,353 | |
| | Sasmuan (Sexmoan) | Municipality | 4th | 9,180 | 27,254 | |
| | Tarlac | Tarlac (capital) | City | 1st | 27,466 | 318,332 |
| Camiling | | Municipality | 1st | 14,053 | 80,241 | |
| Capas | | Municipality | 1st | 37,639 | 125,852 | |
| Concepcion | | Municipality | 1st | 24,299 | 139,832 | |
| Gerona | | Municipality | 1st | 12,889 | 83,084 | |
| Moncada | | Municipality | 1st | 8,575 | 56,183 | |
| Paniqui | | Municipality | 1st | 10,516 | 87,730 | |
| Bamban | | Municipality | 2nd | 25,198 | 62,413 | |
| La Paz | | Municipality | 2nd | 11,433 | 60,982 | |
| Santa Isnacia | | Municipality | 2nd | 14,607 | 43,787 | |
| Victoria | | Municipality | 2nd | 11,151 | 59,987 | |
| Mayantoc | | Municipality | 3rd | 31,142 | 29,987 | |
| San Jose | | Municipality | 3rd | 59,281 | 33,960 | |
| Pura | | Municipality | 4th | 3,101 | 22,949 | |
| San Manuel | | Municipality | 4th | 4,210 | 24,289 | |
| Anao | | Municipality | 5th | 2,387 | 10,873 | |
| Ramos | | Municipality | 5th | 2,440 | 20,249 | |
| San Clemente | | Municipality | 5th | 4,973 | 12,510 | |
| ZAMBALES | | Iba (capital) | City | 2nd | 15,338 | 46,761 |
| | | Olongapo | City | 1st | 18,500 | 221,178 |
| | Botolan | Municipality | 1st | 73,528 | 54,434 | |
| | Masinloc | Municipality | 1st | 33,150 | 44,342 | |
| | San Marcelino | Municipality | 1st | 41,686 | 31,879 | |
| | Santa Cruz | Municipality | 1st | 43,846 | 53,867 | |
| | Subic | Municipality | 1st | 28,716 | 89,724 | |
| | San Antonio | Municipality | 2nd | 18,812 | 34,217 | |
| | Candelaria | Municipality | 3rd | 33,359 | 25,020 | |
| | Castillejos | Municipality | 3rd | 9,299 | 48,845 | |
| | Palauig | Municipality | 3rd | 31,000 | 33,286 | |
| | Cabangan | Municipality | 4th | 17,529 | 23,082 | |
| | San Felipe | Municipality | 4th | 11,160 | 22,020 | |
| San Narciso | Municipality | 4th | 7,160 | 26,966 | | |

| Region/Province | Name of City/Municipality | Category | Income Class | Land Area (ha) | Population in 2010 |
|-----------------------|---------------------------|--------------|--------------|----------------|--------------------|
| Region IV-A | | | | | |
| Batangas | Batangas (capital) | City | 1st | 28,296 | 305,607 |
| | Lipa | City | 1st | 20,940 | 283,468 |
| | Tanauan | City | 2nd | 10,716 | 152,393 |
| | Balayan | Municipality | 1st | 10,873 | 81,805 |
| | Bauan | Municipality | 1st | 5,331 | 81,351 |
| | Calaca | Municipality | 1st | 11,458 | 70,521 |
| | Lemery | Municipality | 1st | 10,980 | 81,825 |
| | Mabini | Municipality | 1st | 4,447 | 44,391 |
| | Nasugbu | Municipality | 1st | 27,851 | 122,483 |
| | Rosario | Municipality | 1st | 22,688 | 105,561 |
| | San Jose | Municipality | 1st | 5,329 | 68,517 |
| | San Juan | Municipality | 1st | 27,340 | 94,291 |
| | San Pascual | Municipality | 1st | 5,070 | 59,598 |
| | Santo Tomas | Municipality | 1st | 9,541 | 124,740 |
| | Calatagan | Municipality | 2nd | 11,200 | 51,997 |
| | Ibaan | Municipality | 2nd | 6,899 | 48,482 |
| | Malvar | Municipality | 2nd | 3,300 | 45,952 |
| | Padre Garcia | Municipality | 2nd | 4,151 | 44,877 |
| | Taysan | Municipality | 2nd | 9,362 | 35,357 |
| | Laurel | Municipality | 3rd | 7,129 | 35,674 |
| | Lian | Municipality | 3rd | 7,680 | 45,943 |
| | Lobo | Municipality | 3rd | 17,503 | 37,070 |
| | Taal | Municipality | 3rd | 2,976 | 51,503 |
| | Talisay | Municipality | 3rd | 2,820 | 39,600 |
| | Tuy | Municipality | 3rd | 9,465 | 40,734 |
| | Aoncillo | Municipality | 4th | 4,996 | 35,794 |
| | Alitagtag | Municipality | 4th | 2,476 | 23,649 |
| | Cuenca | Municipality | 4th | 5,818 | 31,236 |
| | Mataas na Kahoy | Municipality | 4th | 2,210 | 27,177 |
| | San Luis | Municipality | 4th | 4,256 | 30,701 |
| Balete | Municipality | 5th | 2,500 | 20,214 | |
| San Nicolas | Municipality | 5th | 1,437 | 20,599 | |
| Santa Teresita | Municipality | 5th | 1,630 | 17,415 | |
| Tingloy | Municipality | 5th | 3,307 | 16,870 | |
| Cavite | Trece Martires (capital) | City | 4th | 3,910 | 104,559 |
| | Tagaytay | City | 2nd | 6,500 | 62,030 |
| | Cavite | City | 4th | 1,089 | 101,120 |
| | Bacoor | City | - | 4,617 | 520,216 |
| | Dasmariñas | City | - | 9,013 | 575,817 |
| | Imus | City | - | 17,166 | 301,624 |
| | Alfonso | Municipality | 1st | 6,658 | 48,567 |
| | Carmona | Municipality | 1st | 4,024 | 74,986 |
| | General Mariano Alvarez | Municipality | 1st | 4,213 | 138,540 |
| | General Trias | Municipality | 1st | 8,146 | 243,322 |
| | Indang | Municipality | 1st | 7,490 | 62,030 |
| | Kawit | Municipality | 1st | 2,286 | 78,209 |
| | Naic | Municipality | 1st | 7,624 | 88,144 |
| | Rosario | Municipality | 1st | 3,816 | 92,253 |
| | Silang | Municipality | 1st | 20,943 | 213,490 |
| | Tanza | Municipality | 1st | 9,559 | 188,755 |
| | Maragondon | Municipality | 3rd | 16,461 | 35,289 |
| | Noveleta | Municipality | 3rd | 1,643 | 41,678 |
| | Amadeo | Municipality | 4th | 3,692 | 33,457 |
| | Magallanes | Municipality | 4th | 7,307 | 21,231 |
| Mendez (Mendez-Nunez) | Municipality | 4th | 4,327 | 28,570 | |
| Ternate | Municipality | 4th | 5,993 | 19,297 | |

| Region/Province | Name of City/Municipality | Category | Income Class | Land Area (ha) | Population in 2010 |
|-----------------|---------------------------|--------------|--------------|----------------|--------------------|
| Laguna | General Emilio Aguinaldo | Municipality | 5th | 940 | 17,507 |
| | Santa Cruz (capital) | City | 1st | 3,859 | 110,943 |
| | Cabuyao | City | - | 4,330 | 248,436 |
| | Binan | City | - | 4,350 | 283,396 |
| | Calamba | City | 1st | 14,950 | 389,377 |
| | Santa Rosa | City | 1st | 5,484 | 284,670 |
| | San Pablo | City | 1st | 19,756 | 248,890 |
| | Los Banos | Municipality | 1st | 5,422 | 101,884 |
| | San Pedro | Municipality | 1st | 2,405 | 294,310 |
| | Bay | Municipality | 2nd | 4,266 | 55,698 |
| | Calauan | Municipality | 2nd | 6,540 | 74,890 |
| | Nagcarlan | Municipality | 2nd | 7,810 | 59,726 |
| | Siniloan | Municipality | 2nd | 6,451 | 35,363 |
| | Alaminos | Municipality | 3rd | 5,746 | 43,526 |
| | Cavinti | Municipality | 3rd | 20,358 | 20,809 |
| | Kalayaan | Municipality | 3rd | 4,660 | 20,944 |
| | Lumban | Municipality | 3rd | 4,053 | 29,470 |
| | Pagsanjan | Municipality | 3rd | 2,636 | 39,313 |
| | Pila | Municipality | 3rd | 3,120 | 46,534 |
| | Liliw | Municipality | 4th | 3,910 | 33,851 |
| | Luisiana | Municipality | 4th | 7,331 | 20,148 |
| | Magdalena | Municipality | 4th | 3,488 | 22,976 |
| | Majayjay | Municipality | 4th | 6,958 | 26,547 |
| | Paete | Municipality | 4th | 5,502 | 23,523 |
| | Pangil | Municipality | 4th | 4,503 | 23,201 |
| | Santa Maria | Municipality | 4th | 10,840 | 26,839 |
| | Victoria | Municipality | 4th | 2,235 | 34,604 |
| | Famy | Municipality | 5th | 5,306 | 15,021 |
| | Mabitac | Municipality | 5th | 8,076 | 18,618 |
| | Pakil | Municipality | 5th | 4,650 | 20,822 |
| Rizal | Municipality | 5th | 2,790 | 15,518 | |
| Quezon | Lucena (capital) | City | 2nd | 8,021 | 246,392 |
| | Tayabas | City | - | 23,095 | 91,428 |
| | Atimonan | Municipality | 1st | 23,966 | 61,587 |
| | Calauag | Municipality | 1st | 32,471 | 69,223 |
| | Candelaria | Municipality | 1st | 12,910 | 110,570 |
| | Catanauan | Municipality | 1st | 25,307 | 65,832 |
| | General Nakar | Municipality | 1st | 134,375 | 25,973 |
| | Gumaca | Municipality | 1st | 18,965 | 69,618 |
| | Infanta | Municipality | 1st | 34,276 | 64,818 |
| | Lopez | Municipality | 1st | 35,538 | 91,074 |
| | Mauban | Municipality | 1st | 41,598 | 61,141 |
| | Mulanay | Municipality | 1st | 42,000 | 50,826 |
| | Pagbilao | Municipality | 1st | 17,096 | 65,996 |
| | Real | Municipality | 1st | 56,389 | 35,189 |
| | Sariaya | Municipality | 1st | 21,216 | 138,894 |
| | Tagkawayan | Municipality | 1st | 53,435 | 50,833 |
| | Tiaong | Municipality | 1st | 16,838 | 91,599 |
| | Lucban | Municipality | 2nd | 13,046 | 46,698 |
| | San Francisco | Municipality | 2nd | 30,396 | 57,979 |
| | Guinayangan | Municipality | 3rd | 21,412 | 41,669 |
| | Polillo | Municipality | 3rd | 25,300 | 28,125 |
| | San Narciso | Municipality | 3rd | 26,358 | 45,386 |
| | Buenavista | Municipality | 4th | 16,135 | 29,053 |
| | Burdeos | Municipality | 4th | 19,982 | 24,166 |
| | Dolores | Municipality | 4th | 6,260 | 27,702 |
| | General Luna | Municipality | 4th | 10,102 | 25,373 |

| Region/Province | Name of City/Municipality | Category | Income Class | Land Area (ha) | Population in 2010 |
|-----------------|---------------------------|--------------|--------------|----------------|--------------------|
| | Macalelon | Municipality | 4th | 12,405 | 26,419 |
| | Padre Burgos | Municipality | 4th | 6,910 | 20,161 |
| | Panukulan | Municipality | 4th | 22,661 | 12,511 |
| | Pitogo | Municipality | 4th | 7,339 | 21,380 |
| | San Andres | Municipality | 4th | 6,099 | 33,586 |
| | San Antonio | Municipality | 4th | 17,293 | 31,681 |
| | Unisan | Municipality | 4th | 12,415 | 25,186 |
| | Agdangan | Municipality | 5th | 3,154 | 11,567 |
| | Alabat | Municipality | 5th | 5,761 | 16,120 |
| | Jomalig | Municipality | 5th | 5,665 | 6,884 |
| | Patnanungan | Municipality | 5th | 13,920 | 13,865 |
| | Perez | Municipality | 5th | 5,746 | 12,039 |
| | Plaridel | Municipality | 5th | 3,505 | 10,238 |
| | Quezon | Municipality | 5th | 7,122 | 15,142 |
| | Sampaloc | Municipality | 5th | 10,478 | 13,107 |
| Rizal | Antipolo (capital) | City | 1st | 30,610 | 677,741 |
| | Angono | Municipality | 1st | 2,622 | 102,407 |
| | Binangonan | Municipality | 1st | 6,634 | 249,872 |
| | Cainta | Municipality | 1st | 4,299 | 311,845 |
| | Pililia | Municipality | 1st | 6,995 | 59,527 |
| | Rodriguez | Municipality | 1st | 17,265 | 280,904 |
| | San Mateo | Municipality | 1st | 5,509 | 205,255 |
| | Tanay | Municipality | 1st | 20,000 | 98,879 |
| | Taytay | Municipality | 1st | 3,880 | 288,956 |
| | Morong | Municipality | 2nd | 3,758 | 52,194 |
| | Teresa | Municipality | 2nd | 1,861 | 47,163 |
| | Cardona | Municipality | 3rd | 2,856 | 47,414 |
| | Baras | Municipality | 4th | 8,493 | 32,609 |
| | Jalajala | Municipality | 4th | 4,412 | 30,074 |

Source: NSCB.

2.2 Data Sources

- (i) Administrative boundaries: National Statistical Office (NSO);
- (ii) Classification of the capitals, cities, and municipalities: National Statistical Coordination Board (NSCB); and
- (iii) Location of capitals, cities, and municipalities: The JICA Study Team plotted the location capitals, cities, and municipalities based on free map sources (e.g., Google map, Accu-map, etc.).

3 POPULATION

3.1 Data Sources

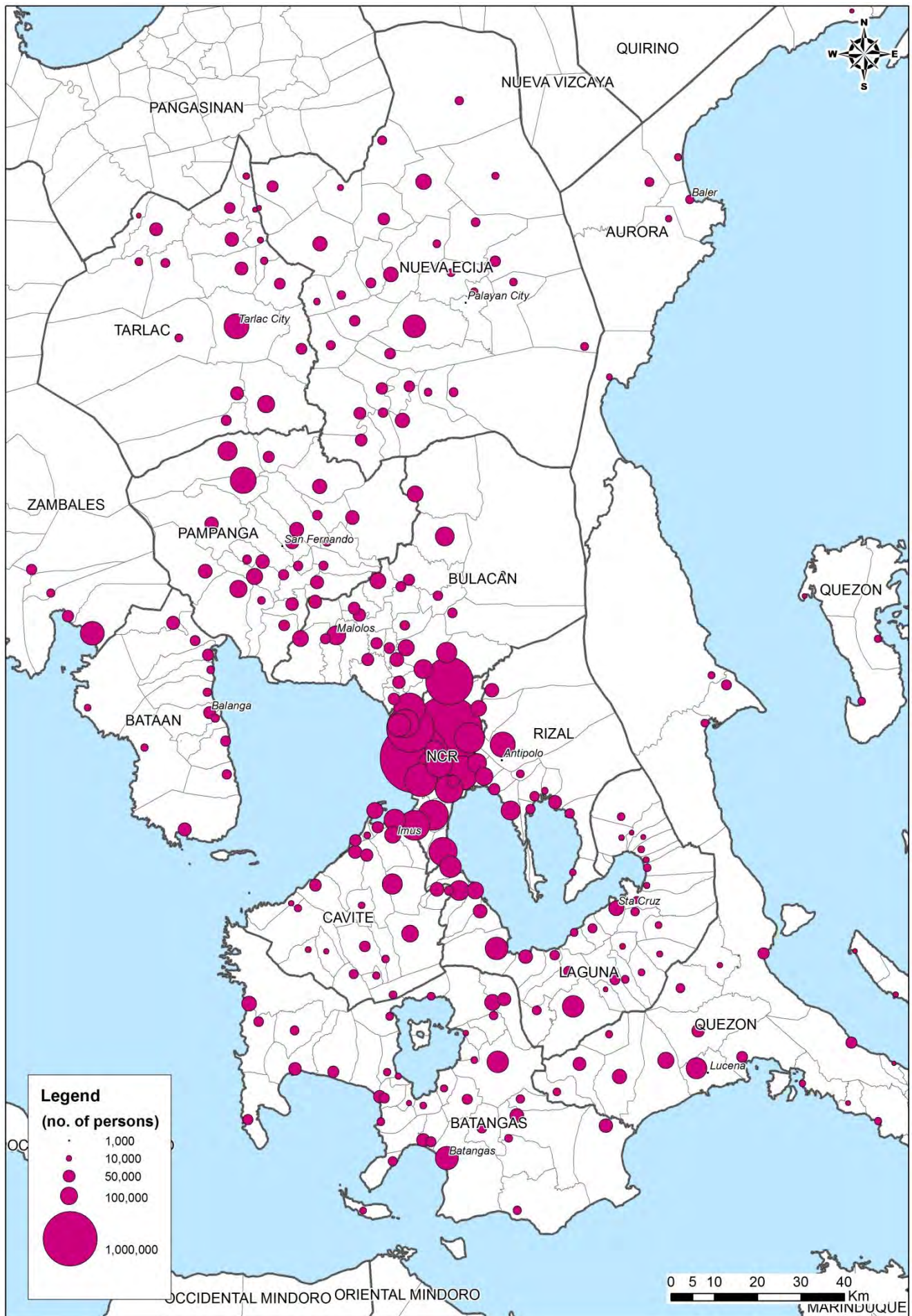
Population data is only available from the census done by the National Statistical Office (NSO). In order to analyze the changes in population distribution, growth and concentration, the JICA Study Team prepared maps on population distribution, growth, and density in the Greater Capital Region, Mega Manila¹ and Metro Manila². The data sources used in preparing the maps are as follows:

- (a) **Population Data:** The NSO's 1990, 2000, and 2010 population and housing censuses;
- (b) **Population Growth:** Population growth was calculated based on the above population data;
- (c) **Population Density:** Official data at the barangay level is not available. Therefore, barangay areas were calculated using GIS. Based on the resulting figures, population densities were calculated.

¹ Mega Manila comprises the National Capital Region (Metropolitan Manila) and the provinces of Bulacan, Cavite, Laguna, and Rizal.

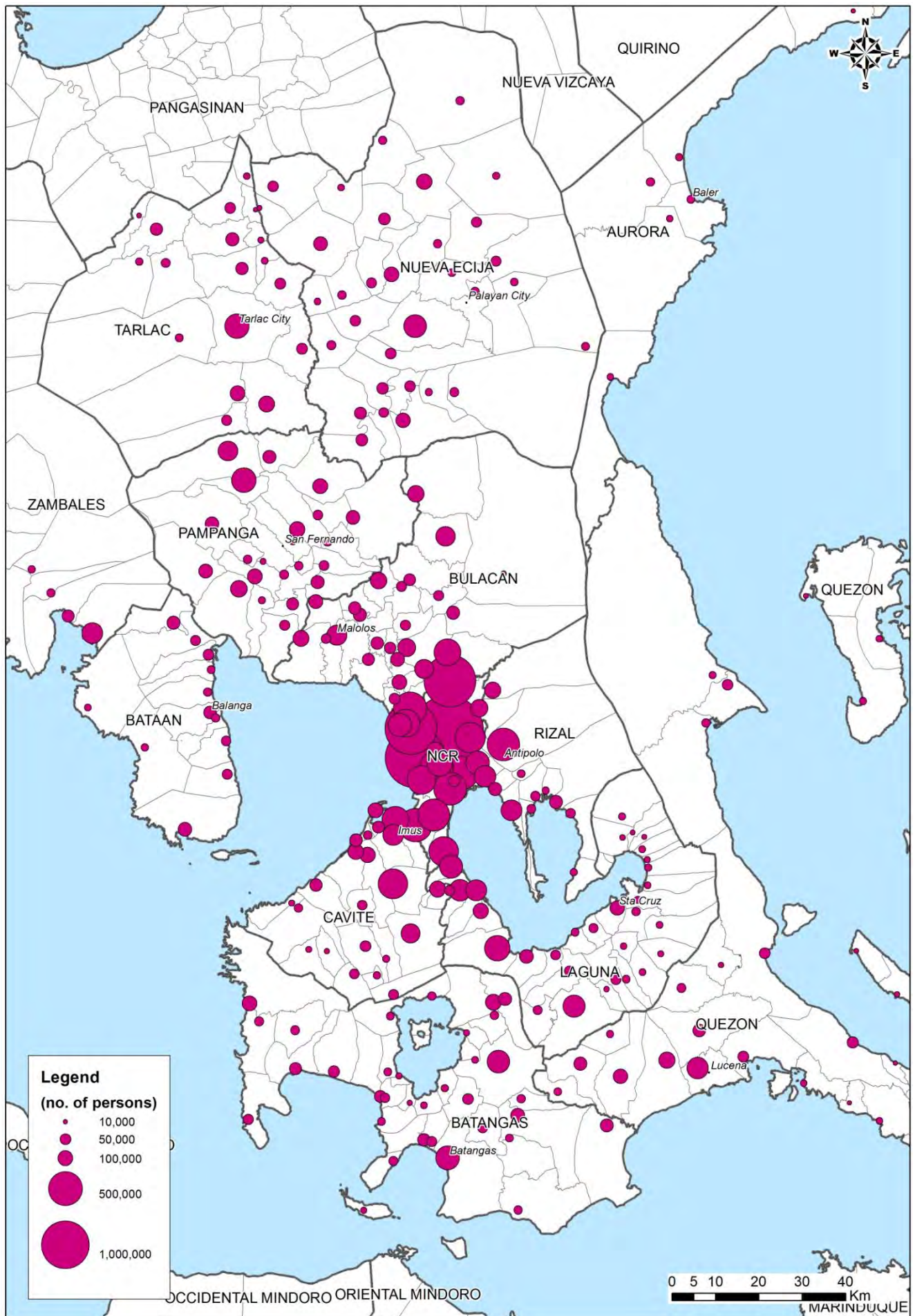
² Metropolitan (or Metro) Manila comprises 16 cities and one municipality (see Table 2.2).

Figure 3.1 Population Distribution in the Greater Capital Region in 1990 by City/Municipality



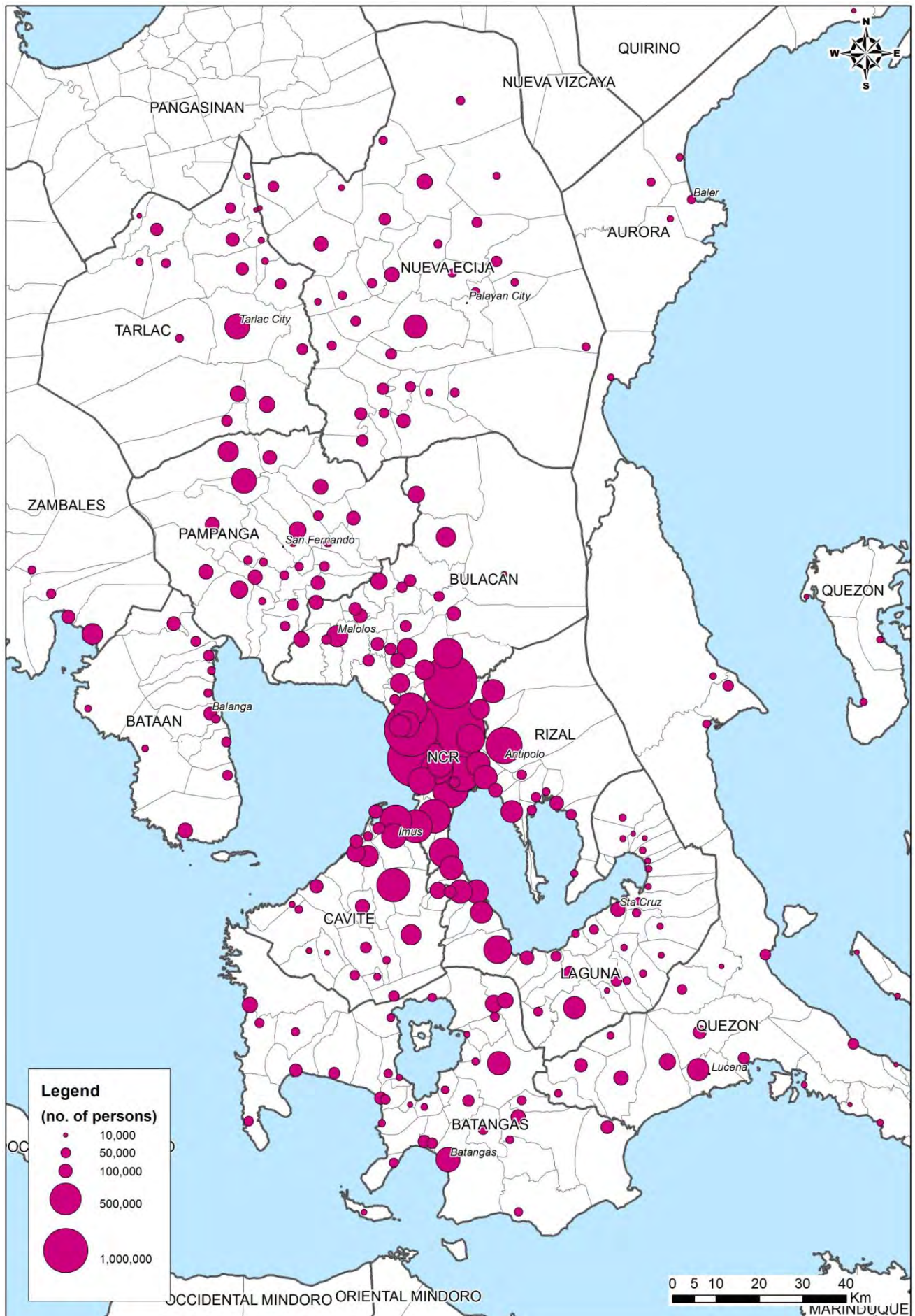
Source: 1990 Census of Population and Housing (NSO).

Figure 3.2 Population Distribution in the Greater Capital Region in 2000 by City/Municipality



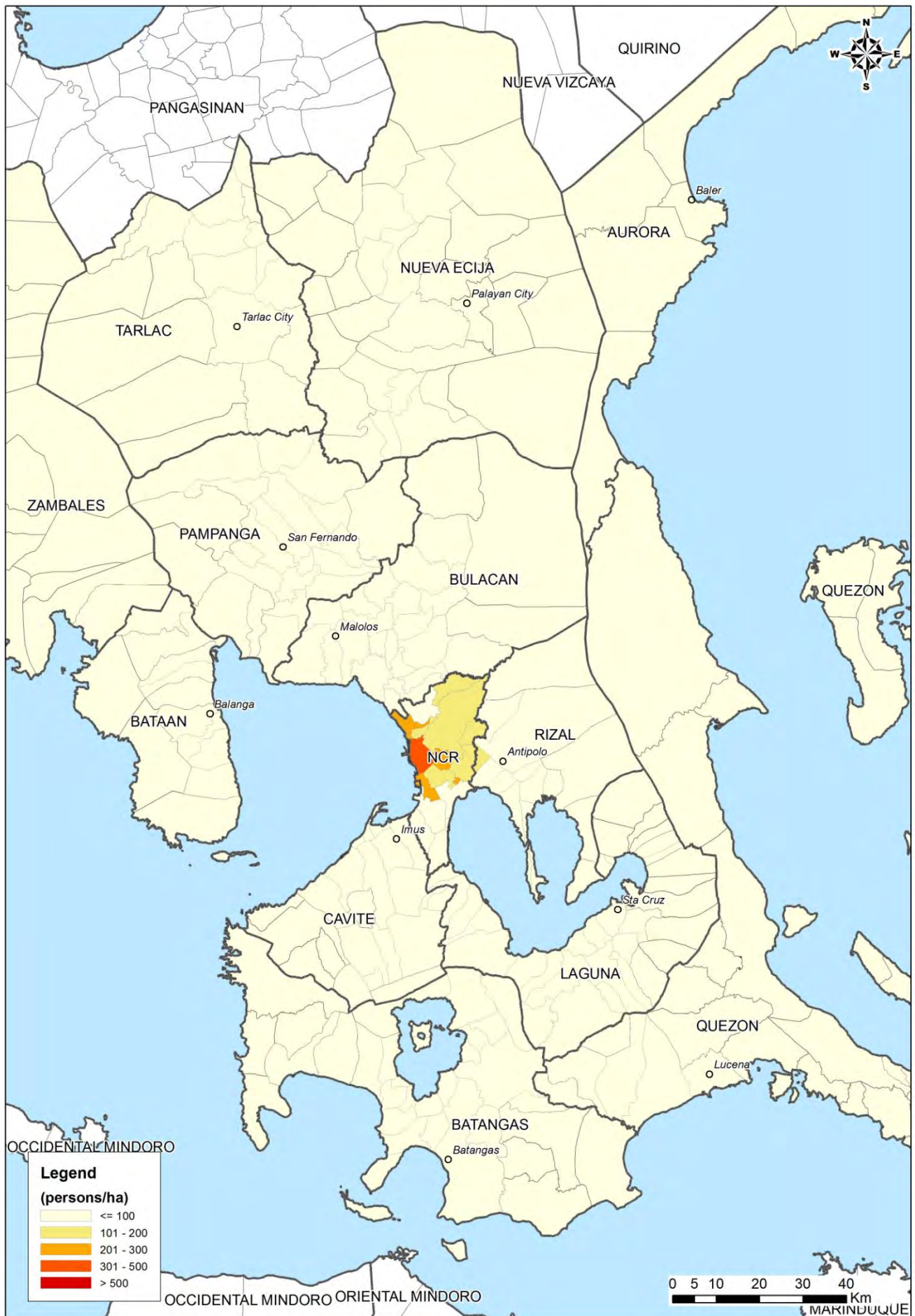
Source: 2000 Census of Population and Housing (NSO).

Figure 3.3 Population Distribution in the Greater Capital Region in 2010 by City/Municipality



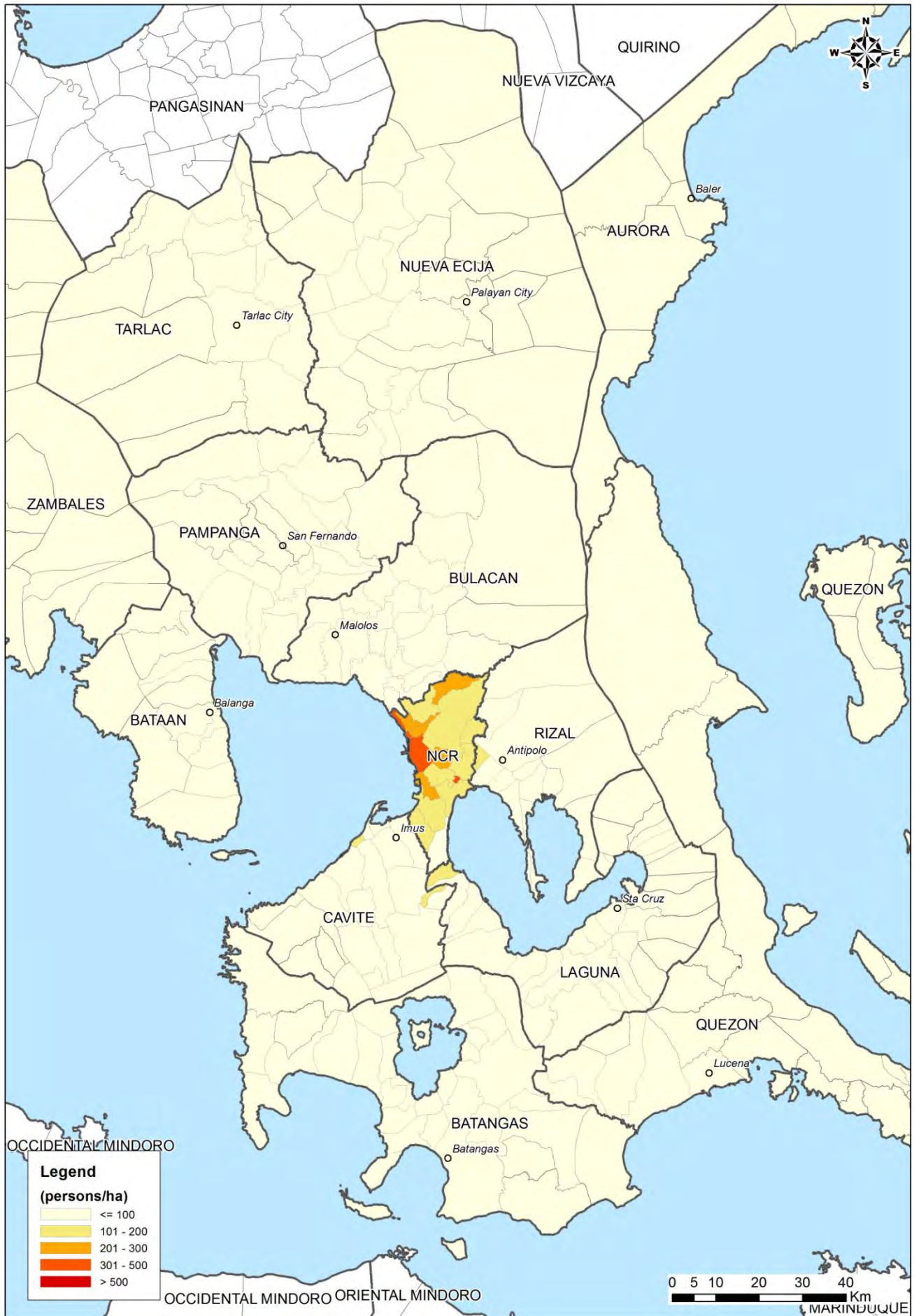
Source: 2010 Census of Population and Housing (NSO).

Figure 3.4 Population Densities in the Greater Capital Region in 1990 by City/Municipality



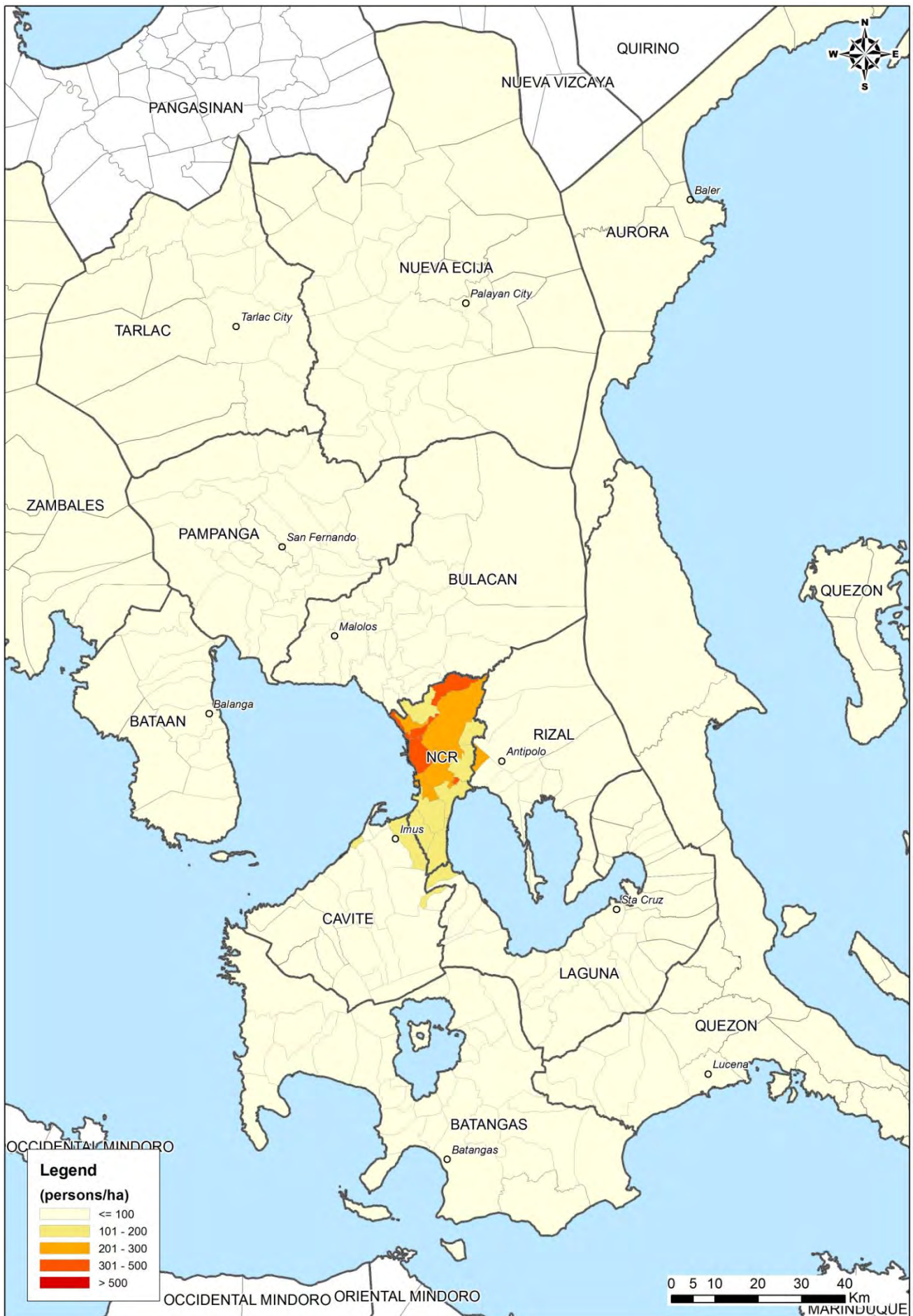
Source: 1990 Census of Population and Housing (NSO)/ JICA Study Team.

Figure 3.5 Population Densities in the Greater Capital Region in 2000 by City/Municipality



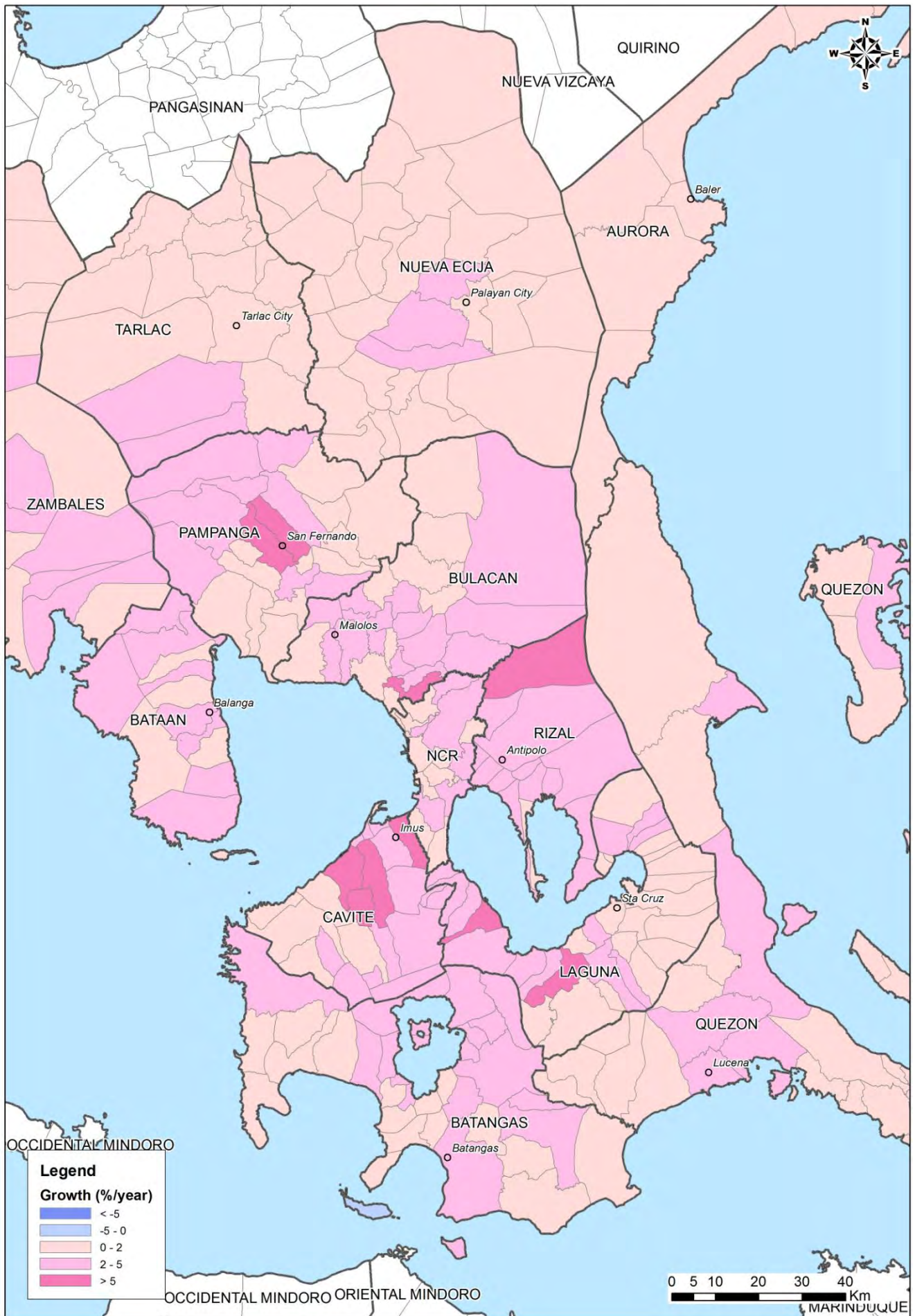
Source: 2000 Census of Population and Housing (NSO)/ JICA Study Team.

Figure 3.6 Population Densities in the Greater Capital Region in 2010 by City/Municipality



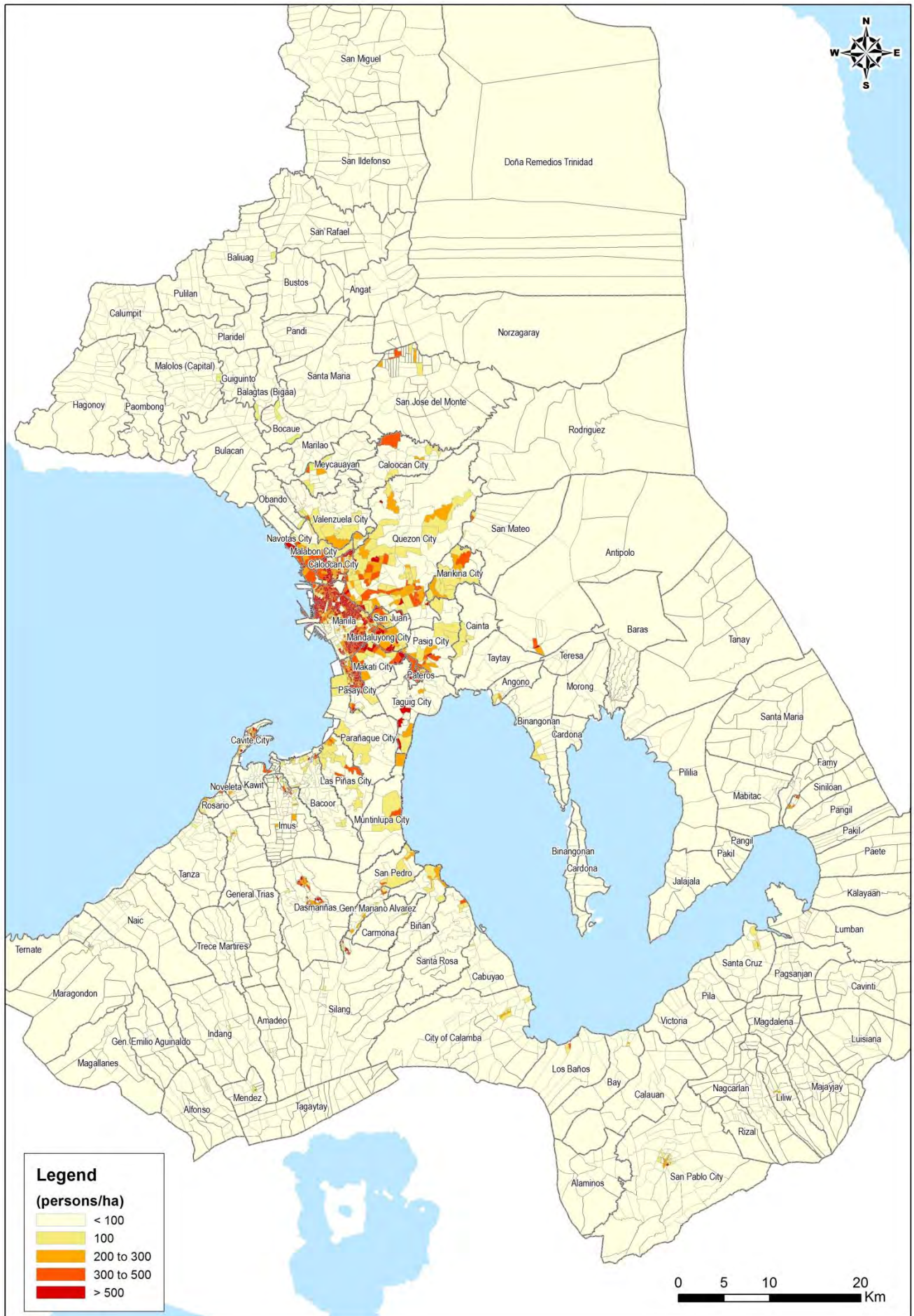
Source: 2010 Census of Population and Housing (NSO)/ JICA Study Team.

Figure 3.8 Population Growth in the Greater Capital Region in 2000–2010 by City/Municipality



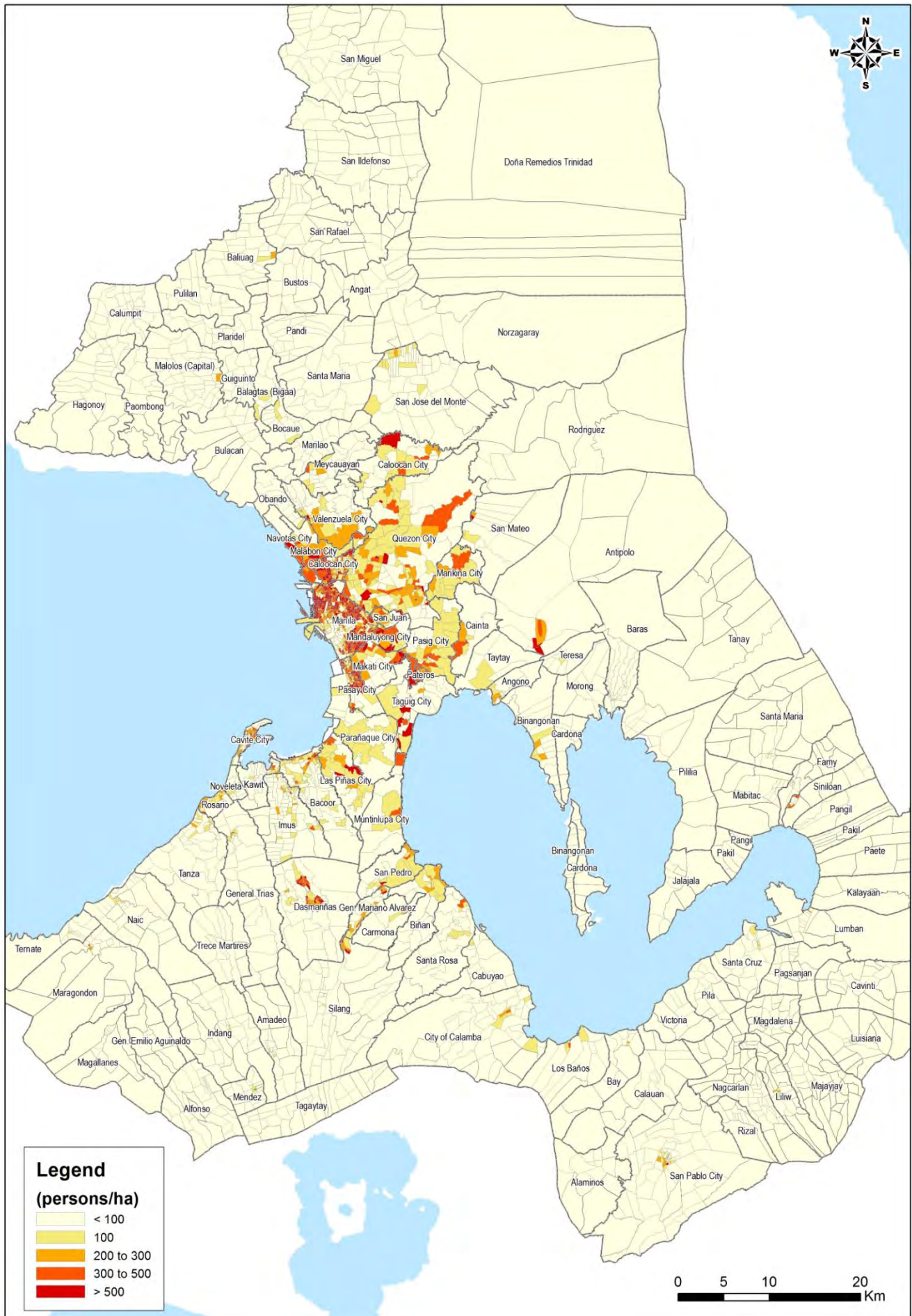
Source: 2000 Census of Population and Housing (NSO)/2010 Census of Population and Housing (NSO)/ JICA Study Team.

Figure 3.9 Population Densities in Mega Manila in 1990 by Barangay



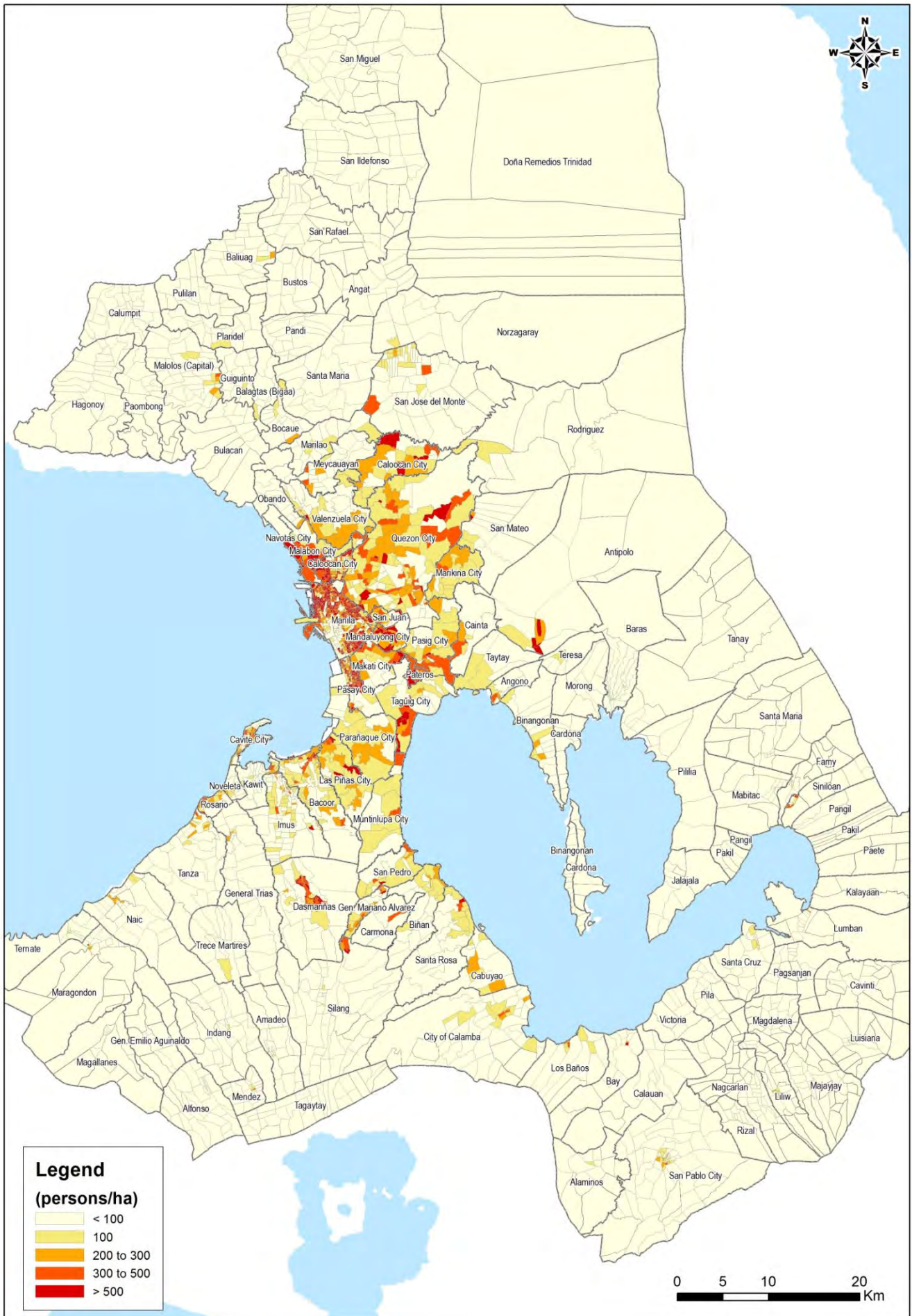
Source: 1990 Census of Population and Housing (NSO) / JICA Study Team.

Figure 3.10 Population Densities in Mega Manila in 2000 by Barangay



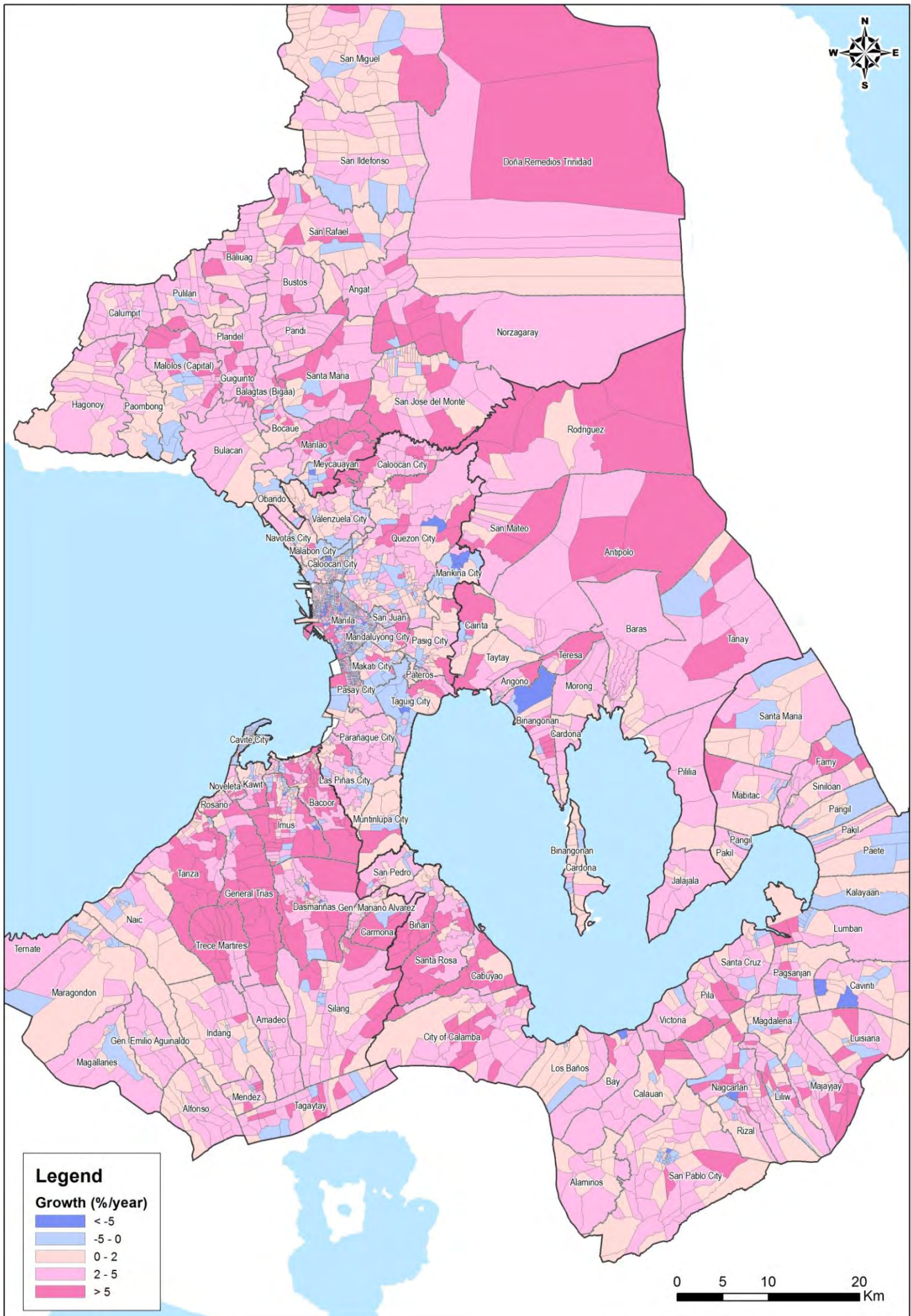
Source: 2000 Census of Population and Housing (NSO) / JICA Study Team.

Figure 3.11 Population Densities in Mega Manila in 2010 by Barangay



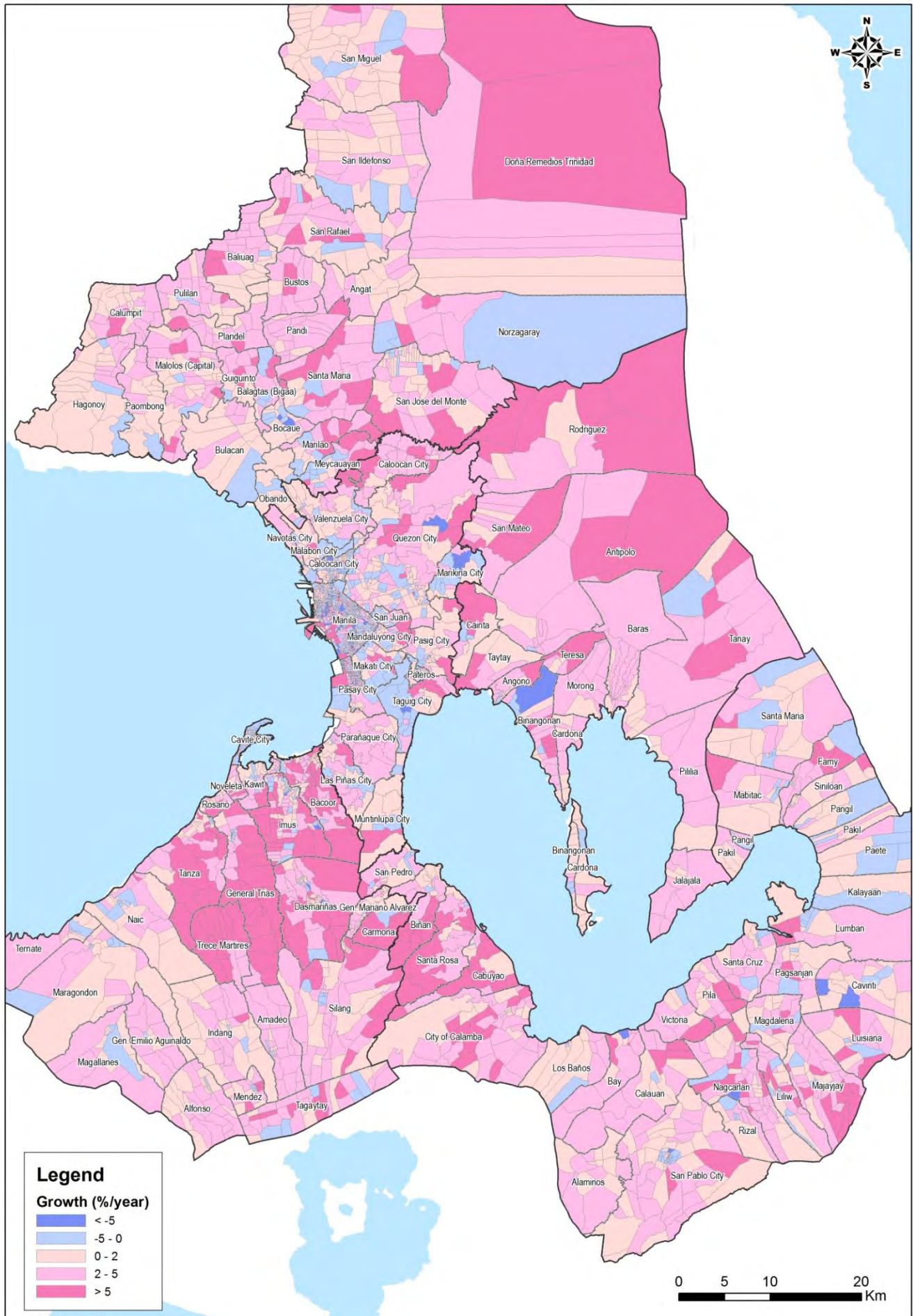
Source: 2010 Census of Population and Housing (NSO) / JICA Study Team.

Figure 3.12 Population Growth in Mega Manila in 1990–2000 by Barangay



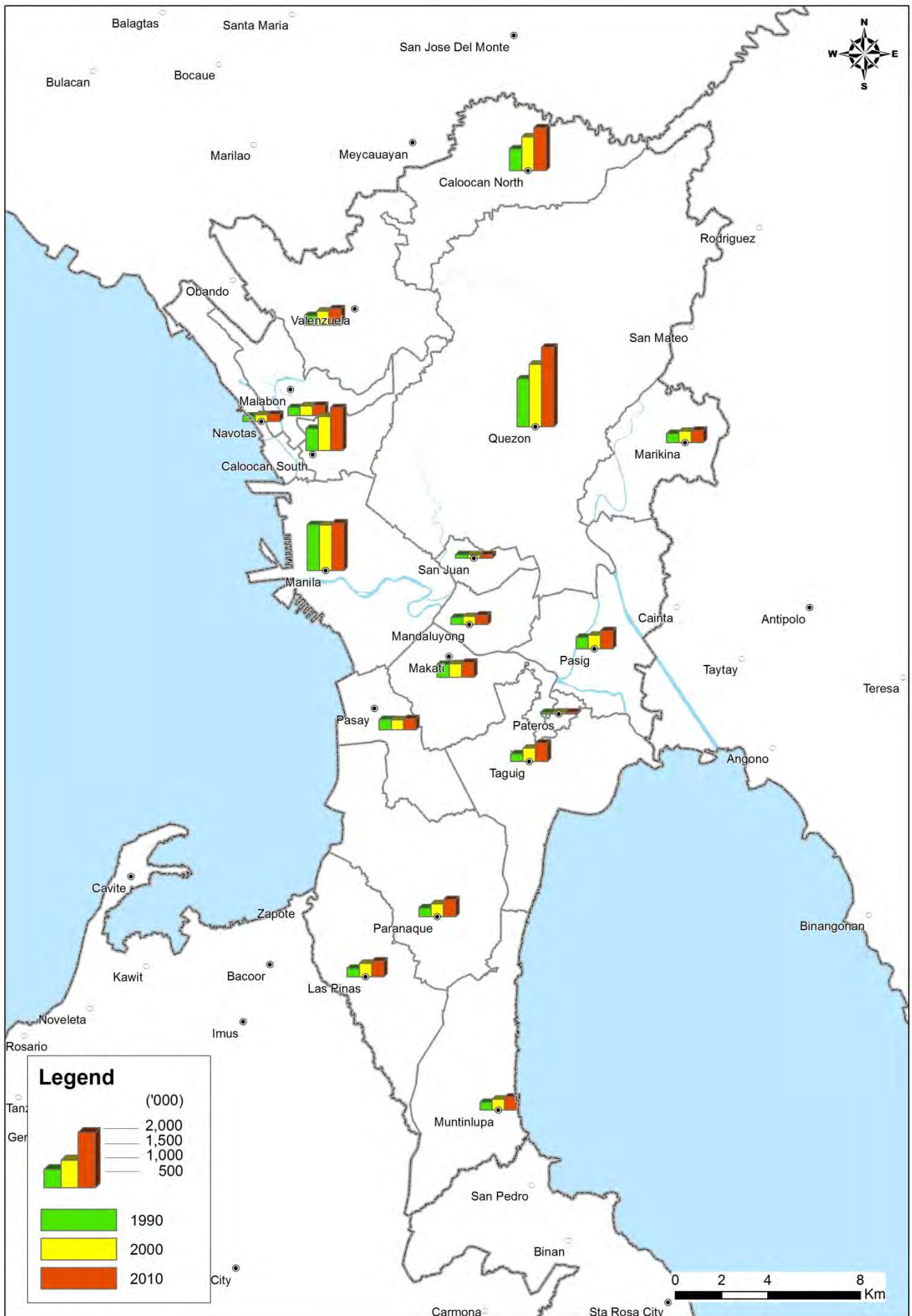
Source: 1990 Census of Population and Housing (NSO) / 2000 Census of Population and Housing (NSO) / JICA Study Team.

Figure 3.13 Population Growth in Mega Manila in 2000–2010 by Barangay



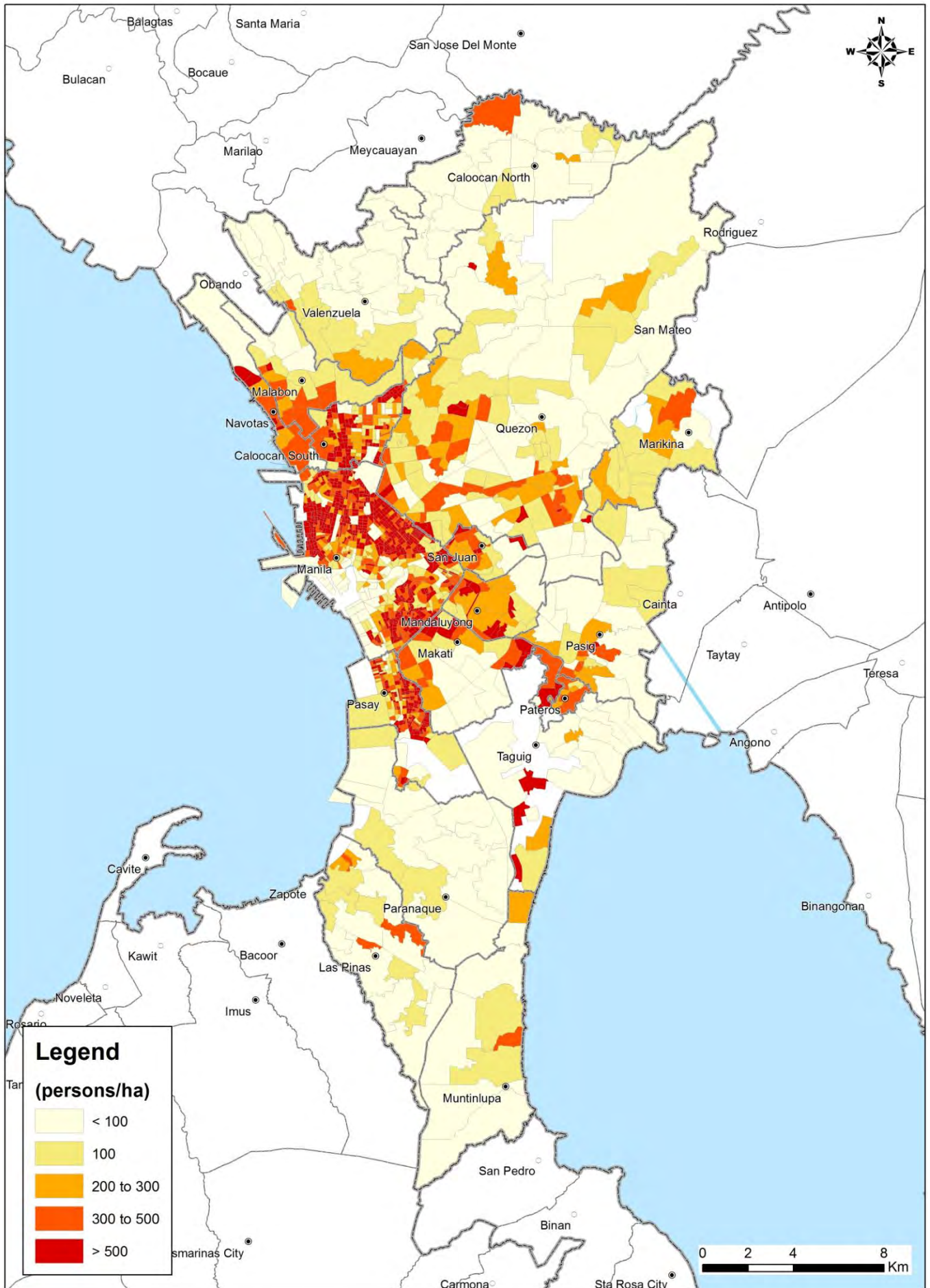
Source: 2000 Census of Population and Housing (NSO) / 2010 Census of Population and Housing (NSO) / JICA Study Team.

Figure 3.14 Population Distribution in Metro Manila in 1990, 2000, and 2010 by City/Municipality



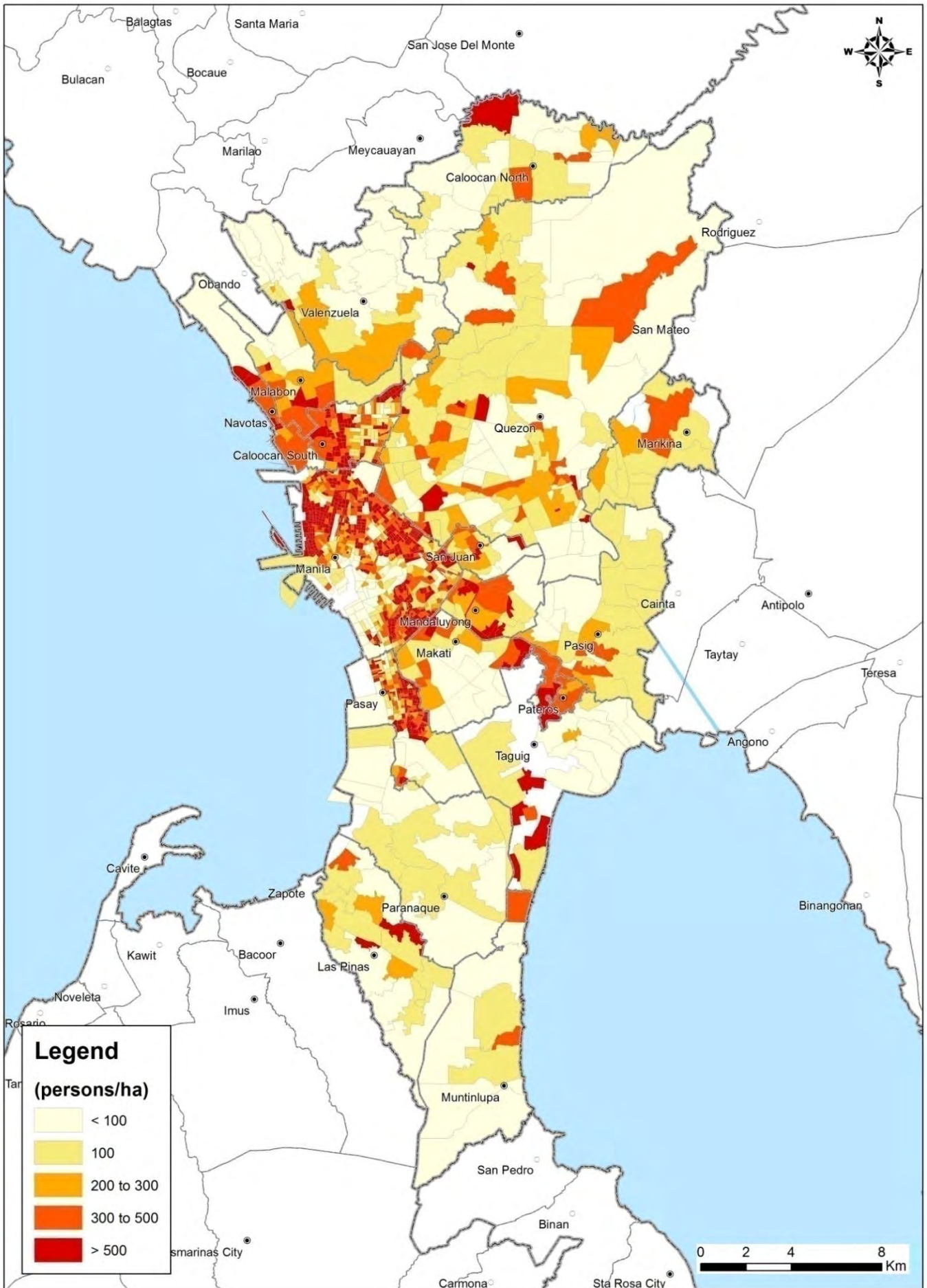
Source: 1990 Census of Population and Housing (NSO) / 2000 Census of Population and Housing (NSO) / 2010 Census of Population and Housing (NSO).

Figure 3.15 Population Densities in Metro Manila in 1990 by Barangay



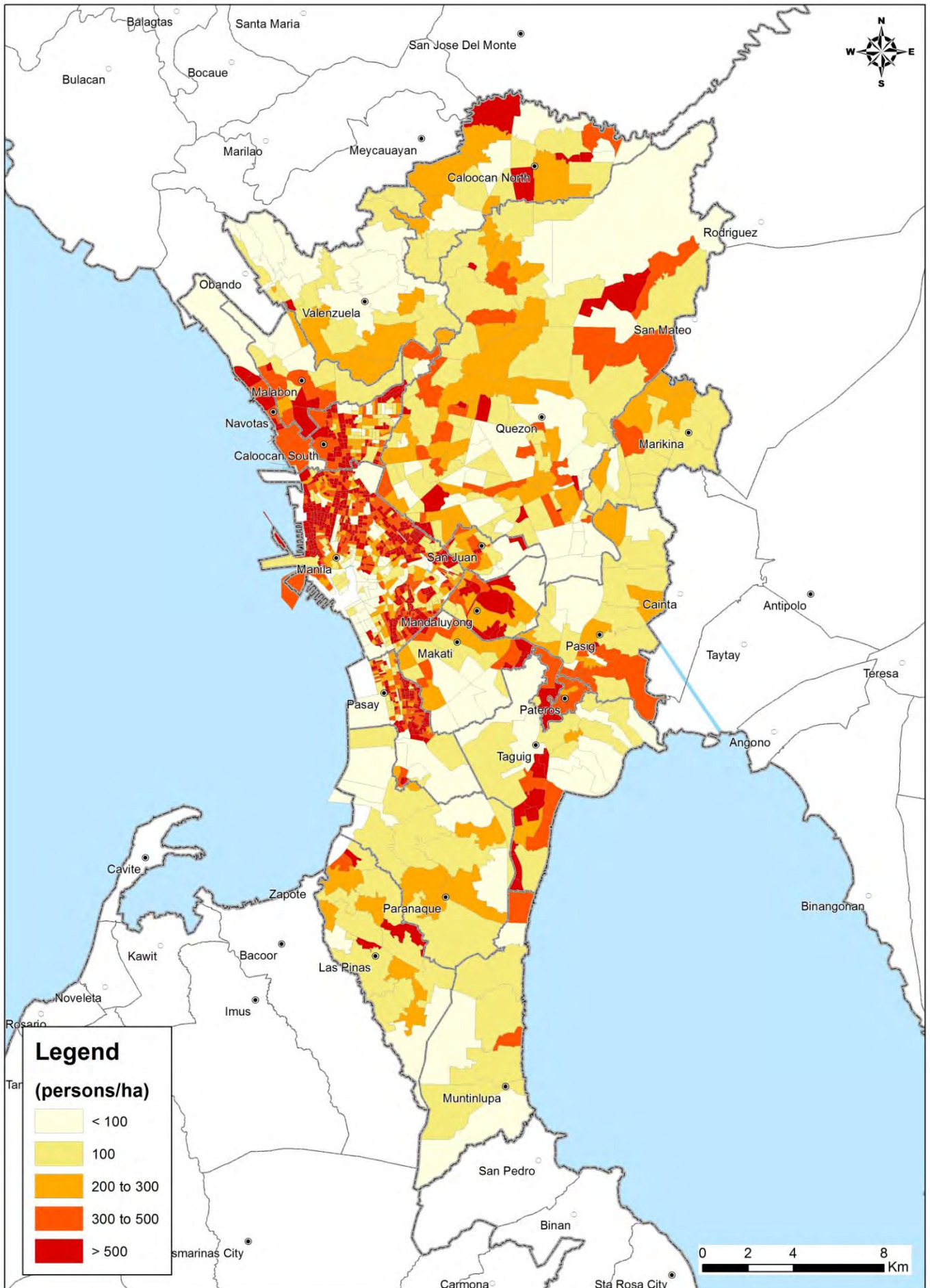
Source: 1990 Census of Population and Housing (NSO) / JICA Study Team.

Figure 3.16 Population Densities in Metro Manila in 2000 by Barangay



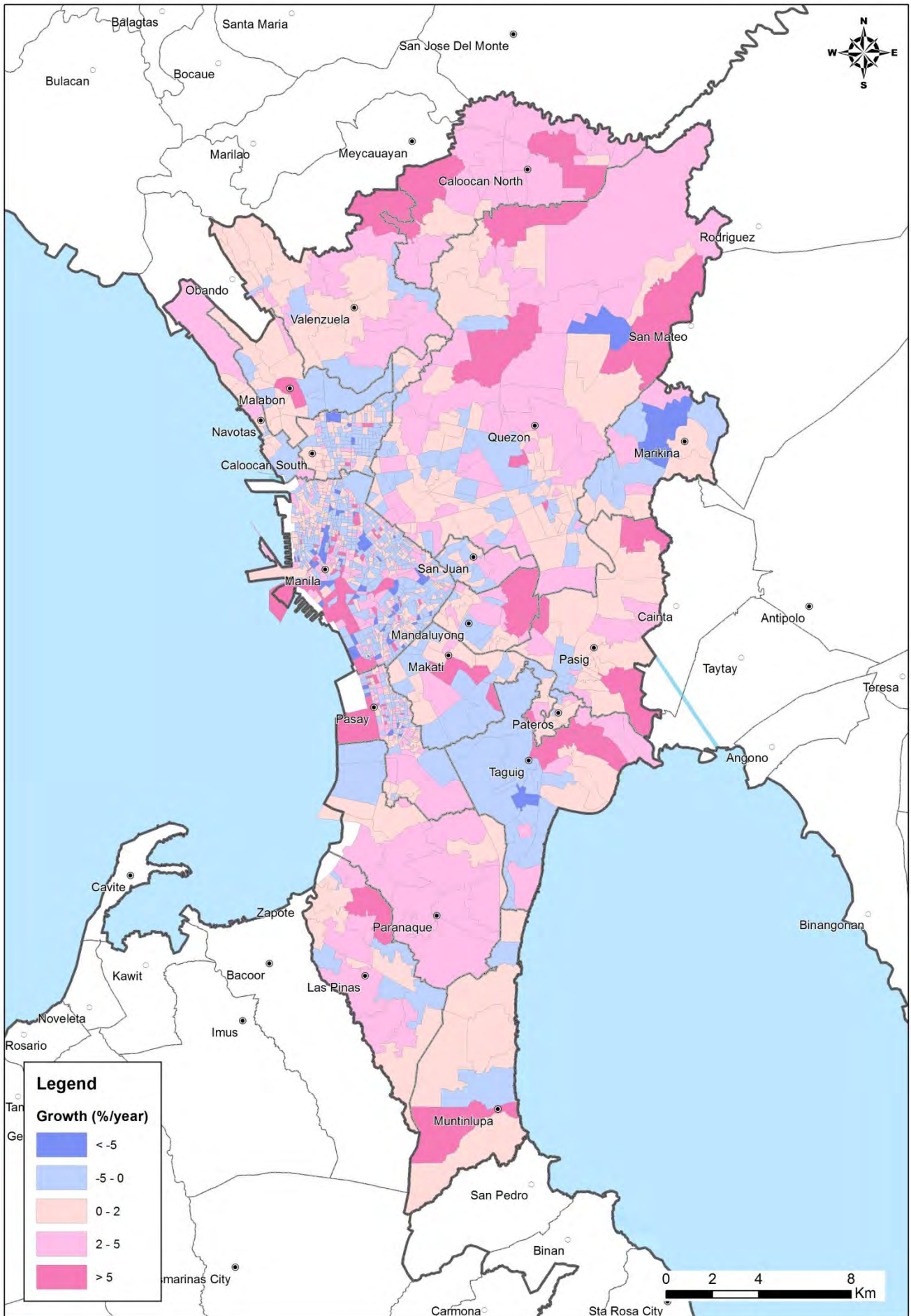
Source: 2000 Census of Population and Housing (NSO) / JICA Study Team.

Figure 3.17 Population Densities in Metro Manila in 2010 by Barangay



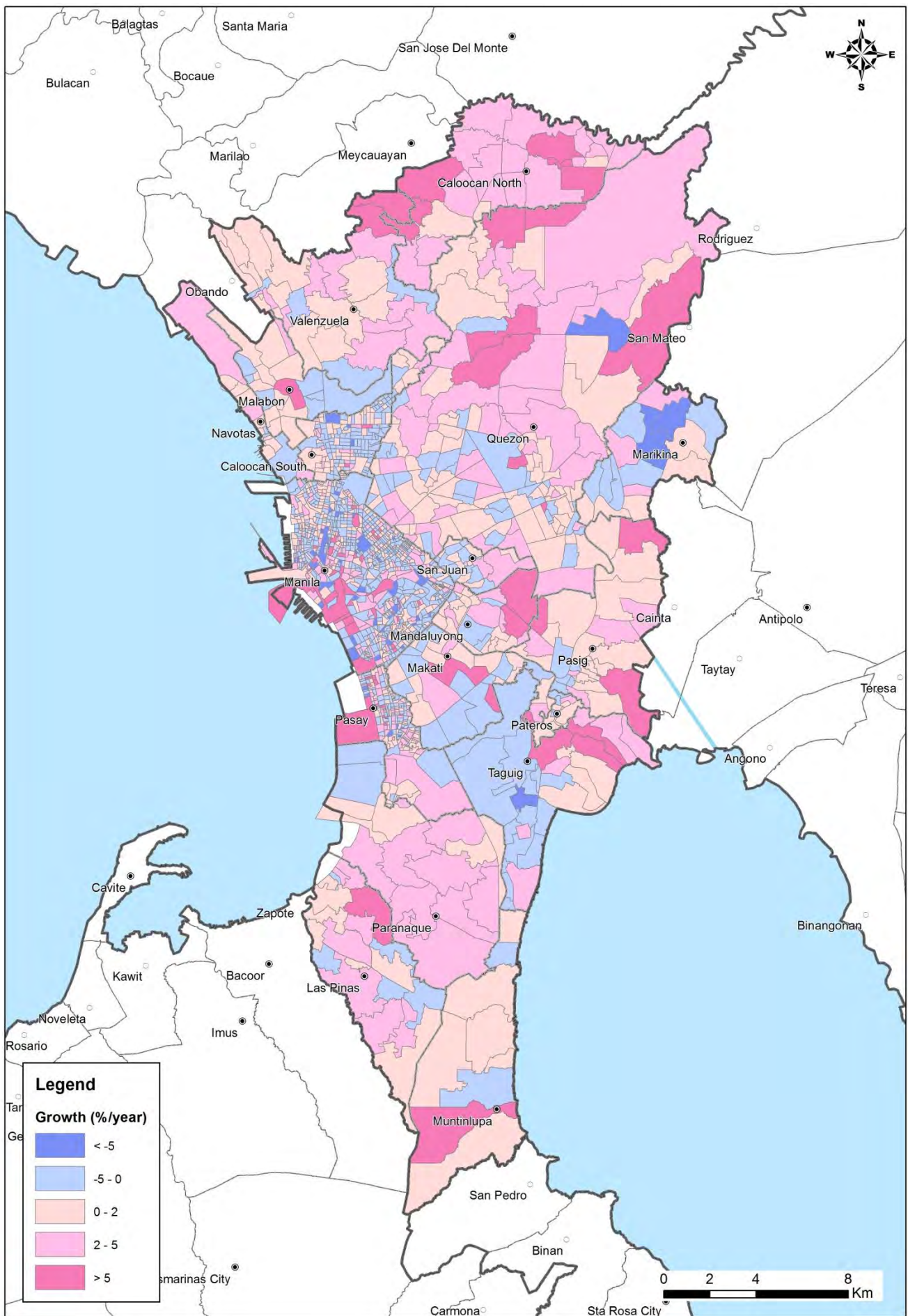
Source: 2010 Census of Population and Housing (NSO) / JICA Study Team.

Figure 3.18 Population Growth in Metro Manila in 1990–2000 by Barangay



Source: 1990 Census of Population and Housing (NSO)/2000 Census of Population and Housing (NSO) / JICA Study Team.

Figure 3.19 Population Growth in Metro Manila in 2000–2010 by Barangay



Source: 2000 Census of Population and Housing (NSO)/2010 Census of Population and Housing (NSO) / JICA Study Team.