

**Urban Transition, Poverty, and Development in the Philippines**

**A Preliminary Draft**

**by Emma Porio  
Department of Sociology and Anthropology  
Ateneo de Manila University  
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## ACRONYMS

|             |   |
|-------------|---|
| ADB         | Asian Development Bank                                    |
| APD         | Areas for Priority Development                            |
| ARMM        | Autonomous Region of Muslim Mindanao                      |
| ASEAN       | Association of Southeast Asian Nations                    |
| BMA         | Bangkok Metropolitan Area                                 |
| BPO         | Business Process Outsourcing                              |
| CALABARZON  | Southern Tagalog: Cavite, Laguna, Batangas, Rizal, Quezon |
| CAR         | Cordillera Administrative Region                          |
| CARAGA      | Region 13, Philippines                                    |
| CARP        | Comprehensive Agrarian Reform Program                     |
| CBO         | Community-Based Organization                              |
| CDM         | Clean Development Mechanism                               |
| CEO         | Chief Executive Officer                                   |
| CER         | Certified Emission Reduction                              |
| CIC         | Cagayan de Oro-Iligan                                     |
| CMP         | Community Mortgage Program                                |
| CSO         | Civil Society Organizations                               |
| DTI         | Department of Trade and Industry                          |
| EMR         | Extended Metropolitan Region                              |
| FDI         | Foreign Direct Investments                                |
| FIES        | Family Incomes and Expenditures Survey                    |
| GDP         | Gross Domestic Product                                    |
| HDI         | Human Development Index                                   |
| HDMF        | Home Development Mortgage Fund                            |
| HGC         | Home Guaranty Corporation                                 |
| HIV         | Human Immunodeficiency Virus                              |
| HUC         | Highly Urbanizing Cities                                  |
| ICT         | Information and Communication Technology                  |
| IIED        | International Institute for Environment and Development   |
| IMR         | Infant Mortality Rate                                     |
| IPM-ESI     | IPM Environmental Services, Inc.                          |
| IRA         | Internal Revenue Allotment                                |
| JABODETABEK | Jakarta, Bogor, and Depok, Bekasi and Tangerang           |
| JABOTEK     | Jakarta, Bogor-Tangerang-Bekasi                           |
| KAMANAVA    | Kalookan, Malabon, Navotas and Valenzuela                 |
| LGC         | Local Government Code                                     |
| LGU         | Local Government Units                                    |
| MDG         | Millenium Development Goals                               |
| MM          | Metro Manila  |
| MMA         | Metro Manila Authority                                    |
| MMC         | Metro Manila Commission                                   |
| MMDA        | Metro Manila Development Authority                        |
| MOA         | Mall of Asia  |

|        |  |
|--------|--|
| MRT    | Metro Rail Transit                                       |
| NCR    | National Capital Region                                  |
| NEDA   | National Economic Development Agency                     |
| NHA    | National Housing Authority                               |
| NSCB   | National Statistical Coordination Board                  |
| NSO    | National Statistics Office                               |
| NSP    | National Shelter Program                                 |
| NUDF   | National Urban Development Framework                     |
| ODA    | Overseas Development Assistance                          |
| OFW    | Overseas Filipino Workers                                |
| OUP    | Organization of the Urban Poor                           |
| PCUP   | Presidential Commission for the Urban Poor               |
| PO     | People's Organization                                    |
| QC     | Quezon City  |
| SLR    | Sea Level Rise   |
| SME    | Small and Medium Enterprises                             |
| STD    | Sexually Transmitted Disease                             |
| SWS    | Social Weather Stations                                  |
| TCPHS  | Technical Committee on Population and Housing Statistics |
| UDHA   | Urban Development and Housing Act                        |
| UN     | United Nations   |
| UNCTAD | United Nations Conference on Trade and Development       |
| UNFPA  | United Nations Fund for Population Agency                |
| USA    | United States of America                                 |
| WB     | World Bank   |
| ZOTO   | Zone One Tondo Organization                              |

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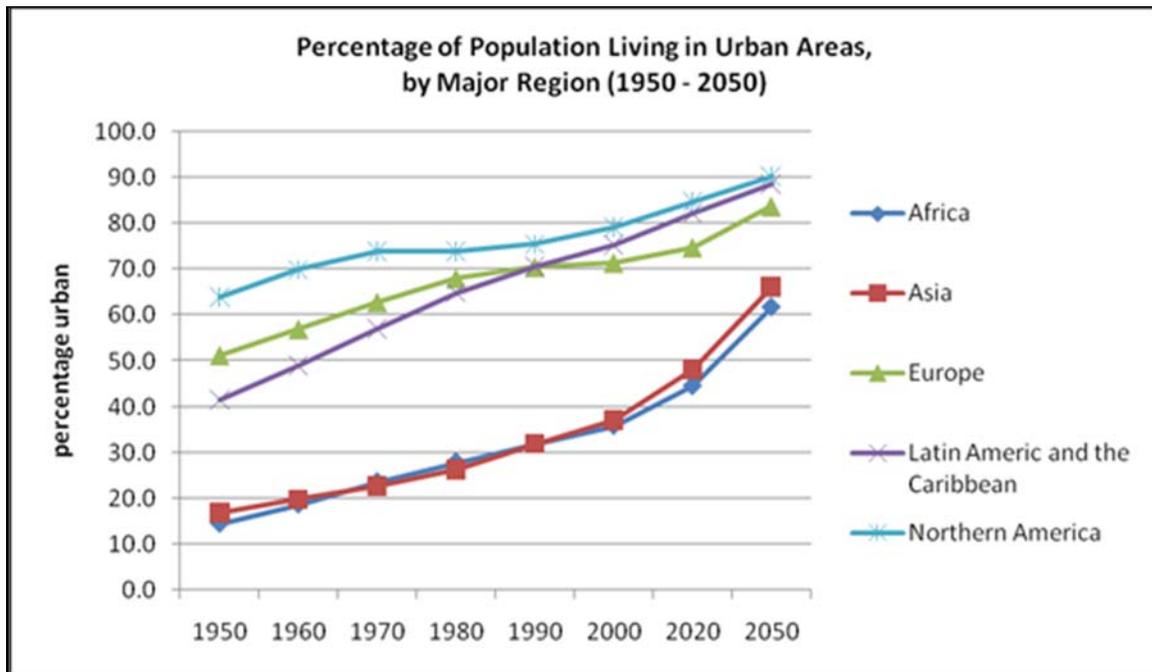
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## Urban Transition, Poverty and Development in the Philippines by Emma Porio

### 1. Philippine Urbanization in the Asian and Global Context

Unlike countries in Europe and North America that underwent intensive urbanization much earlier in the late 19<sup>th</sup> century, Philippine urbanization only started to intensify during the last four decades. The process of urbanization in both contexts share some characteristics, but the global and regional contexts of today's Asian cities provide a different configuration and prospects for urban development compared to the early urbanization patterns observed in advanced countries. Asian urbanization has also been fueled by rural-urban migration, natural increase, and reclassification, but these forces have been shaped by the different political-economic and cultural structures of the region and by the specific national contexts of their cities. But definitely, urbanization is a central force that is fundamentally altering Asian cities and urban agglomerations today.

Figure 1 Percentage of Population Living in Urban Areas by Major Region, 1950-2050



Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2006 Revision and World Urbanization Prospects: The 2007 Revision*, <http://esa.un.org/unup>.

Currently, the pace of urbanization in the developing world is led by Asia followed by Africa. The number of people residing in urban areas in Asia and Africa has been steadily rising since the 1970s. This period also saw the sharp rise in urban growth, with urban populations projected to be about 40 percent, 50 percent and over 60 percent in 2000, 2020, and 2050, respectively. In the 1970s, 50 percent of urban residents lived in developing countries, which increased to 66 percent in the 1990s, and is projected to be 80 percent by 2020. The bulk of Asia's urban growth is occurring in the following countries: Bangladesh, China, India, Indonesia, Pakistan, Philippines, and Vietnam. In 2008, 12 of the 17 megacities of the world are located in Asia. By 2015, there will be 27 megacities in the world, 18 of them will be in Asia.

Population growth in the Philippines has been quite rapid. By the end of 2009, the Philippine population is estimated to be 92.2 million and projected to reach 111.7 million in 2020. In 1948, the population at 19 million doubled 25 years later at 42 million in 1975. But in 1960, the population at 27 million took 30 years to double at 61 million in 1990. Almost 20 years later, another 30 million was added to the population in 2009. With 54 percent of the 92.2 million residing in urban areas, the Philippines experienced an urban transition in the first part of the 21<sup>st</sup> century.

### **1.1. Objectives of the Paper**

This country demonstration paper is part of a broader five-country study on urbanization.<sup>1</sup> The paper describes the urbanization pattern in the Philippines, with the aim of improving our understanding of trends/patterns and their relationships to other social, economic, political and demographic processes. It analyzes the historical and structural forces that have shaped the urbanization of Philippine cities. Briefly, it describes the growth and expansion of cities particularly their roles and functions in urban and national development for the last 50 years, with special focus on the last 15-20 years. The paper highlights the intersections of socio-political, economic and demographic forces and how the interplay of local-global forces during the last decade or so have shaped urban development patterns. In particular, it depicts the dominance of the national capital region (Metro Manila) over other Philippine cities and the consequences of this relationship to urban and national development. This study also attempts to clarify rural-urban linkages, evaluate urban-related policies, and identify more proactive approaches towards upcoming urban growth and development.

Finally, the paper outlines the key challenges facing cities within the context of national, regional, and global processes. In particular, it highlights the key challenges faced in promoting inclusive and sustainable cities. Hopefully, this can serve as a blueprint for the subsequent promotion of analogous studies in Southeast Asia and the Philippines, ushering a second stage that would be carried out under the auspices of UNFPA's country offices.

### **1.2. Data Sources: Strengths and Weaknesses**

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<sup>1</sup> Organized by the International Institute for Environment and Development (IIED) for the United Nations Fund for Population Agency (UNFPA), the other countries are Brazil, China, Ghana and India.

This paper is based largely on the following secondary data sources: 1) national census, 2) family incomes and expenditures survey (FIES), and 3) labor force surveys regularly conducted by government agencies (e.g., National Census Office or NSO, Department of Trade and Industry or DTI) and 4) UN estimates. The first national census was conducted in 1908, then in 1938, 1948, 1950 and every ten years thereafter. Most of the data referred here pertain to the last 20-40 years. The UN urban growth estimates for the Philippines seem to be quite higher than those coming from the NSO.

The 1970 urban definition has been used for the censuses of 1970, 1975, 1980, 1990 and 2000. This study is based on the censuses conducted in the last 50 years but largely focusing on the last 30-40 years. In 2003, the NSO revised the 1970 urban definition for the subsequent census operations. The 1970 urban definition was anchored on population, density, and socio-physical organization of the city, and “poblacion” or town center. It was applied to the entire municipality or city which may have some *barangays* (villages) with rural characteristics. In contrast, the 2003 revised urban definition by the National Statistics Office is applied to the lowest political-administrative unit of the municipality or city<sup>2</sup>. This definition integrated the physical and economic characteristics defining urban areas, highlighting the importance of the latter characteristics that constitute urban agglomerations (see case box below). By highlighting the economic dimension of urbanization processes, the new definition may have obscured the spatial and institutional organizational dimensions of the urbanization process, characteristics which were prominent in the 1970 definition.

#### Box 1 Definitions of Urban Areas: Which is Really Urban?

##### Definitions of Urban Areas: Which is Really Urban?

The revised 2003 definition classifies barangays (the lowest politico-administrative unit) to be urban if it possesses the following characteristics:

If a barangay has a population size of 5,000 or more;

If a barangay has at least one (1) establishment with a minimum of 100 employees; and

If a barangay has five (5) or more establishments with a minimum of ten (10) employees and five (5) or more facilities within the two-kilometer radius from the barangay hall.

All barangays in the NCR are automatically classified as urban while those in highly-urbanizing cities would be subjected to the urban-rural criteria to determine its urban-rural classification. All other barangays are therefore classified as rural.

Meanwhile the 1970 definition considers an area urban if:

In their entirety, all cities and municipalities have a population density of at least 1,000 persons per square kilometer;

Poblaciones or central districts of municipalities and cities, which have a population density of at least 500 persons per square kilometer;

Poblaciones or central districts (not included in the first two points), regardless of the population size that have the following:

Street pattern (i.e., network of streets in either parallel or right angle orientation);

At least six (6) establishments: commercial, manufacturing, recreational and/or personal

<sup>2</sup> Barangay is the lowest political-administrative unit of the Philippine government.

services;

At least three (3) of the following:

A town hall, church or chapel with religious services at least once a month;

A public plaza, park or cemetery;

A market place or building where trading activities are carried out at least once a week;  
and

A public building such as schools, hospitals, health center and library.

Barangays having at least 1,000 inhabitants which meet the conditions set forth in 3 above and where the occupation of the inhabitants is pre-dominantly non-fishing.

Sources: [http://www.nscb.gov.ph/pressreleases/2004/30Jan04\\_urban.asp](http://www.nscb.gov.ph/pressreleases/2004/30Jan04_urban.asp)  
<http://www.census.gov.ph/data/pressrelease/2003/pr0382tx.html>

According to the NSO, the new urban definition improved the statistical measurement of urban areas but did change radically the general concept of an urban area. The reclassification of urban and rural areas was to provide indicators for data users in formulating sound policies and decisions in urban planning and delivery of basic services.

The definition of urban areas, which has been in use since the 1970 census, considers population density, street pattern, and presence of establishments and facilities for basic services. The revision was done because a review of the criteria revealed that some of these were no longer applicable, hence the need to formulate a more up-to-date, practical and realistic definition of urban areas in the Philippines. The new definition underwent an open and rigorous process of evaluation and revalidation through a series of interagency discussions and consultations with experts, stakeholders and other concerned agencies, including the Technical Committee on Population and Housing Statistics (TCPHS) of the NSCB. The NSCB Executive Board approved the definition on 13 October 2003 through [NSCB Board Resolution No. 9, s 2003](#). The NSO and the NSCB have spearheaded an advocacy campaign to inform users of the new definition of urban barangays. The new definition took effect in the 2005 Mid-Decade Census of Population and Housing, affecting the urban-rural disaggregation of barangays.

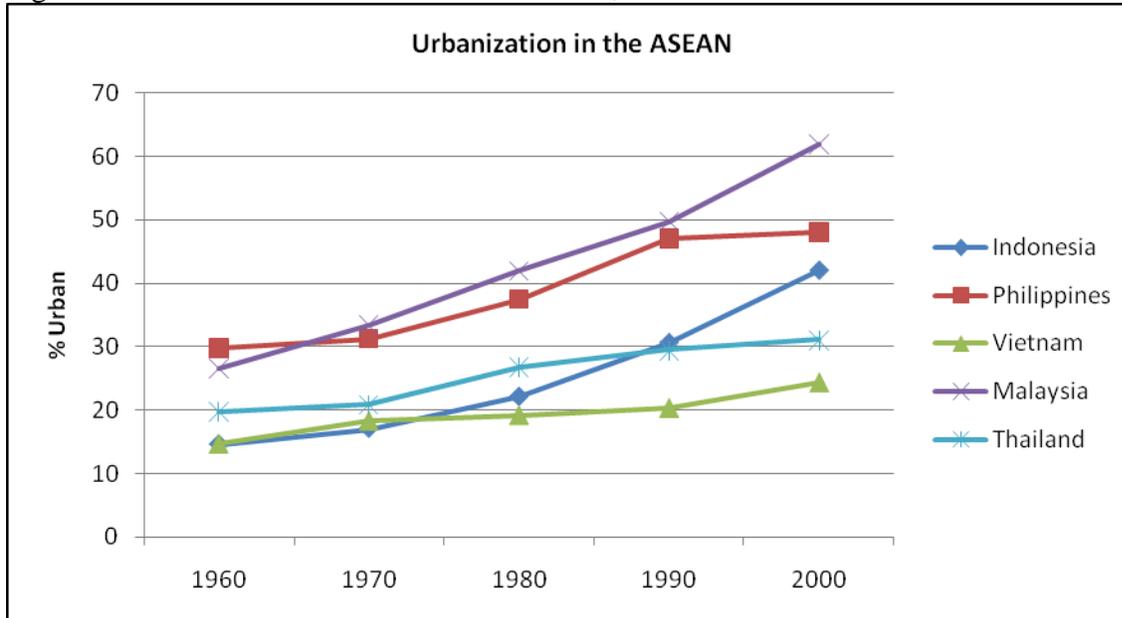
The official population threshold to become a city is 150,000, although “urban” continues to be defined, in part, as localities having populations of only over 50,000. By this definition, studies have shown that there could be as many as 600 urban areas by the year 2020 (ADB 1999). Compared to the 2003 revised definition, the 1970 urban definition seems quite liberal. This supports Gavin Jones’ (2002:119) argument that the urbanization levels of the Philippines compared to other Asian countries are a bit exaggerated because of the former’s less stringent urban definition.

## **2. Urban Transition in the Philippines Within the Asian Context**

Like most Asian countries, the urban population in the Philippines has grown steadily since 1950 and more rapidly during the last four decades, reaching almost 50 percent in 1990. In 2007, the National Statistics Office (NSO) estimated that 54 percent of the population lived in urban areas compared to 30 percent in 1950, 47 percent in 1990 and 48 percent in 2000. The

acceleration of urban growth approached its peak in 1990 with almost one-half (47 percent) of the population living in urban areas. NSO projects that by 2030, more than two-thirds (about 80 percent) of Filipinos will be living in cities and urban agglomerations.

Figure 2 Urbanization in the ASEAN Countries, 1960-2000



Source: National Statistics Office (Philippine figures)

Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2006 Revision* and *World Urbanization Prospects: The 2007 Revision*, <http://esa.un.org/unup>. (Indonesia, Vietnam, Malaysia, Thailand)

As mentioned earlier, the pace of urbanization in the Philippines is quite fast compared to other ASEAN countries in the region (see Appendix Table 1). With more than half of its population (54 percent) living in urban areas in 2007, the Philippines, is one of the most highly-urbanized countries in Southeast Asia, second only to Malaysia. In 2000, while Philippines had 48 percent of its population living in urban areas, Malaysia already had 57 percent. Trailing behind the Philippines in terms of proportion of urban population are Indonesia, Thailand and Vietnam with 41 percent, 22 percent, and 19 percent, respectively. Today, Asian cities are leading the pace of urbanization in the developing world.

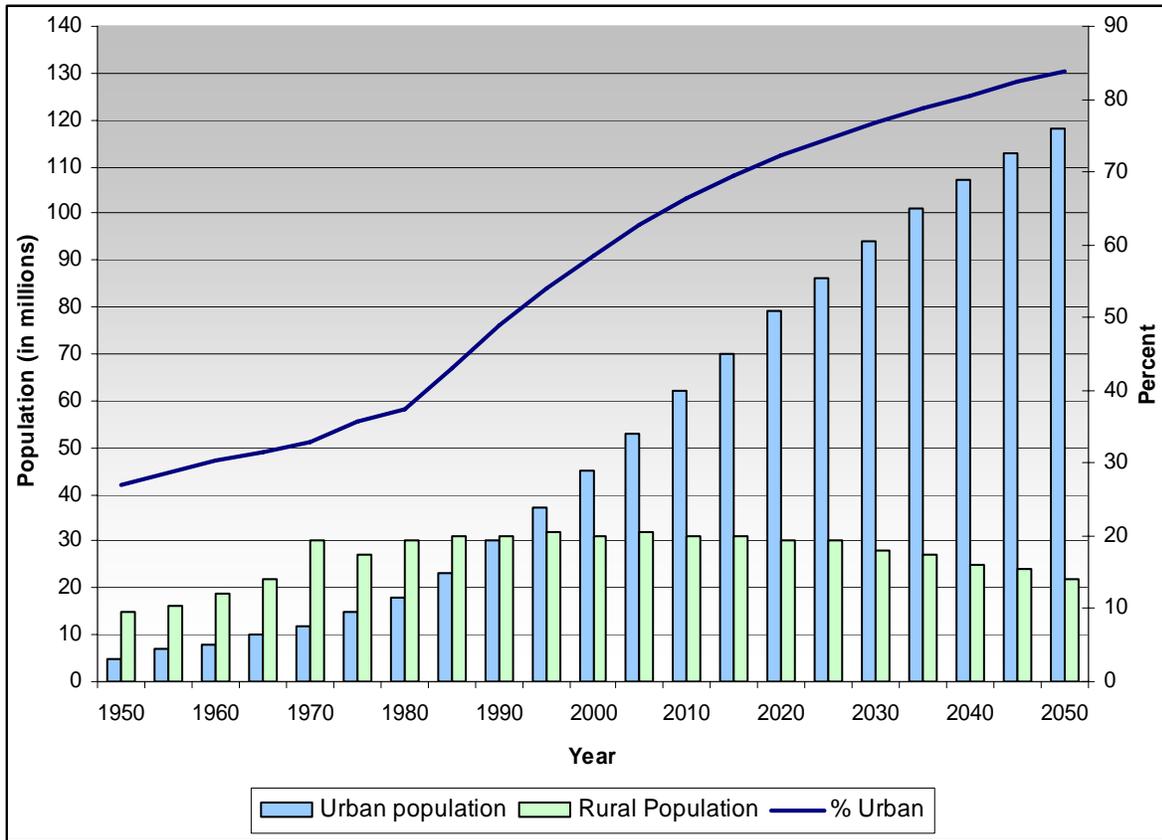
While the growth of the urban population in the Philippines rose quite rapidly from 1970 to 1990, it started to slow down. In fact, the growth from 1990 to 2007 was on the average 5 percent compared to 15 percent between 1970 and 1990. This pattern is quite different from that of the Asian Pacific region, where the urban population has been growing at the fastest pace during the last decade and half (1990-2007).

## 2.1. Urban Growth and the Great Rural-Urban Divide

Rapid urbanization in the Philippines has been driven by the following forces: 1) rural-urban migration, 2) natural increase in *barangays* (villages), towns, and cities, 3) re-classification of barangays and municipalities into urban areas and cities (see urban definition above). These drivers of urbanization have also been influenced by internal political developments like the decentralization of national government functions to local government units (LGU) through the Local Government Code (LGC) and the democratization of urban governance with the passing of the Urban Development and Housing Act (UDHA), both implemented in 1992. Meanwhile, Philippine economy, society, and culture continue to be re-configured by globalizing forces like the increases in foreign direct investments (FDIs), labour migration and remittances of overseas Filipino workers (OFWs), international/domestic tourism, and by the advances in information, communication technologies (ICT). The latter development made possible the creation of ICT-based jobs in the 1990s that provide services for the global economy while creating new occupational opportunities for young, educated, and technically skilled Filipinos in Metro Manila and other key regional cities.

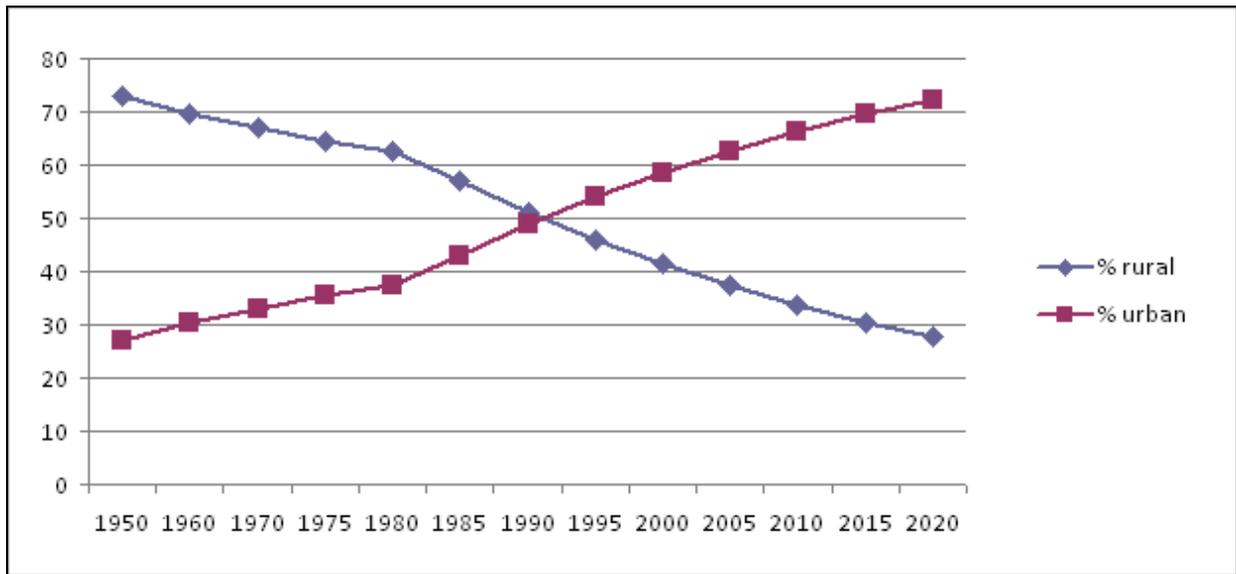
The rapid growth of the urban population is one of the most significant forces driving national development processes today. In the early 1950s, about one-fourth or a little over 5 million Filipinos lived in urban areas. Four decades later, this had exploded to over 29 million or almost one-half of the country's population. By mid-2000, more than half of the Philippine population lived in urban areas. By 2020, the urban population will almost double that of the rural population (see figures below).

Figure 3 Urban and Rural Population Growth



Source: UN World Urbanization Prospects: The 2007 Revision

Figure 4 Percentage of Rural and Urban Population, 1950-2020



Source: UN World Urbanization Prospects: The 2007 Revision

The evolution of the composition of the Philippine population from 1950 to 2000 has been quite dramatic. Figure 4 above shows that in 1950, about 25 percent lived in cities. Twenty-five years later, 42 percent of the population resided in urban areas. But the major break occurred in the 1990s when almost one-half (47 percent) of the population had settled in urban areas, slowing down in 2000 to 48 percent. By 2020, almost three-fourths of the population is projected to live in cities. Thus, about 70 years was the length of time needed to reverse the character of the population from predominantly rural in 1960 (72.9 percent) to heavily urban in 2020 (72.3 percent).

These broad population growth trends can also be seen in the pattern of urban and rural growth rates for the past several decades. In 1960, urban (2.7) and rural (2.5) growth rates were almost at par with each other. From 1970 onwards, rural growth rates have been steadily declining while urban growth rates far outstripped the former. Starting with 4.7 percent in 1970, the urban growth rate peaked in 1990 at 6 percent but declined sharply to 3 percent in 2000 (see Appendix Table 2).

## 2.2. Urban Growth in the Philippine Geographic Regions

While the urbanization process in the Philippines has been quite rapid, the overall pattern of urban growth among the geographical regions has been quite uneven. The growth and levels of urbanization among the regions are largely associated with the growth of a metropolitan center like Metro Manila or the traditional regional centers like Cebu City or Davao City. Lately, the latter two cities have organized themselves as metropolitan centers together with the surrounding towns/cities. Thus, the regions nearest to the National Capital Region (NCR), Southern Tagalog and Central Luzon, have consistently experienced the highest levels of urban growth, outstripping the national growth rates (37 percent) from the 1980s onwards. This pattern of urban

expansion seem to be a key characteristic of regional development found in Luzon (Metro Manila), Visayas (Metro Cebu), and Mindanao (Metro Davao).

Table 1. Urban Growth in Philippine Regions, 1960 - 2000

| <b>Urban Growth in Philippine Regions</b> |                                      |                              |             |             |             |             |
|---|--------------------------------------|------------------------------|-------------|-------------|-------------|-------------|
| <b>Region</b>                             |                                      | <b>Level of Urbanization</b> |             |             |             |             |
|   |                                      | <b>1960</b>                  | <b>1970</b> | <b>1980</b> | <b>1990</b> | <b>2000</b> |
| <b>Philippines</b>                        |                                      | <b>29.8</b>                  | <b>31.8</b> | <b>37.5</b> | <b>47.0</b> | <b>48.0</b> |
| NCR                                       | National Capital Region              | 98.1                         | 100         | 100         | 100         | 100         |
| CAR                                       | Cordillera Administrative Region     | -                            | -           | 20.1        | 30.1        | 35.6        |
| I   | Ilocos                               | 17.6                         | 19.4        | 23.6        | 32.3        | 38.2        |
| II  | Cagayan Valley                       | 14.1                         | 14.1        | 17.7        | 21.5        | 22.2        |
| III                                       | Central Luzon                        | 26.5                         | 30.2        | 41.8        | 54.3        | 60.5        |
| IV  | Southern Tagalog                     | 26.8                         | 30.6        | 37.1        | 53          | 58.2        |
| V   | Bicol                                | 21.9                         | 19.2        | 21.9        | 26.8        | 27.6        |
| VI  | Western Visayas                      | 30.5                         | 26.7        | 28.4        | 37.1        | 30.3        |
| VII                                       | Central Visayas                      | 22.2                         | 27.9        | 32.1        | 42.5        | 46.4        |
| VIII                                      | Eastern Visayas                      | 18.9                         | 19.4        | 21.8        | 28.1        | 19.5        |
| IX  | Western Mindanao                     | 16.8                         | 15.8        | 17.6        | 31.5        | 26          |
| X   | Northern Mindanao                    | 20.2                         | 20.9        | 25.6        | 42.3        | 40.5        |
| XI  | Southern Mindanao                    | 20.9                         | 26.6        | 34.3        | 38.4        | 38          |
| XII                                       | Central Mindanao                     | -                            | 15.6        | 24.3        | 32.8        | 32.7        |
| ARMM                                      | Autonomous Region of Muslim Mindanao | -                            | -           | 11.8        | 22          | 21.2        |
| XIII                                      | Caraga                               | -                            | -           | 30          | 36          | 27.2        |

Source: National Statistics Office.

Note: The Autonomous Region in Muslim Mindanao (ARMM) was formally recognized as a separate region in 1990. Region 13 or Caraga was formally recognized as a separate region in 1995.

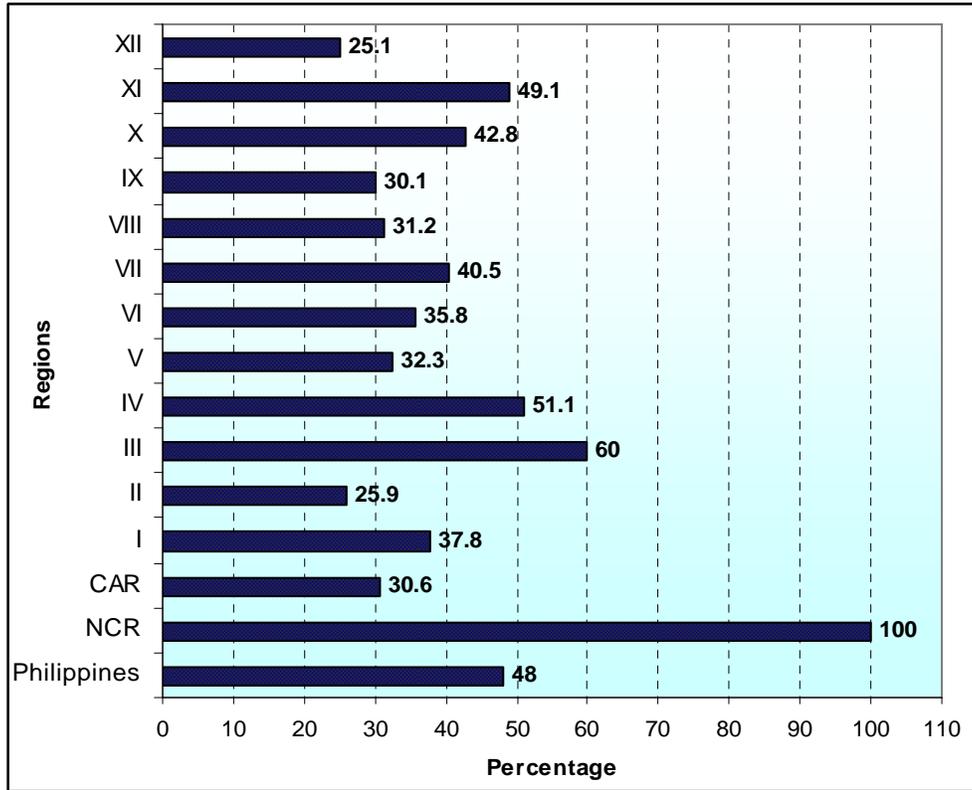
Table 1 above shows the level of urbanization from 1960 to 2000 of the geographical regions. In 1960, while only a third of the country was urbanized, Metro Manila was almost 100 percent urban. Regions around the NCR, Regions III and IV, Central Luzon and Southern Tagalog, respectively, became the most urbanized regions in the country. This is reflected in the growth rates of the region at 3.20 percent for the period 1995 to 2000, higher than the previous five-year period (1990 to 1995) of 2.12 percent and with the national annual rate of 2.36 percent for the same period. Though the region's population growth rate has declined to 2.36 percent per year from 2000 to 2007, this figure is still higher than the national growth rate of 2.04 percent. It should be noted that the two highly-urbanized areas in Central Luzon, Angeles City and Olongapo City, only account for roughly 6 percent of the total population in 2000. The growth of Central Luzon and Southern Tagalog (or Calabarzon) regions is a result of the following factors, namely, high natural population increases and spill-over of the population from the

national capital region (NCR) to the surrounding areas. These population dynamics, have in part, been a result of the economic programming of both government and the private sector as these regions have been targeted to absorb investments and other development inputs, especially during the Ramos Administration in the early 1990s.

Meanwhile, Region VII or Central Visayas, where its highly urbanized center, Metro Cebu, is located, exhibited the highest urban growth in the Visayas in 2000. The impressive growth of these regions can be partly attributed to the strong promotions made by the national planning agency (National Economic Development Agency) and their regional development councils (e.g., Central Visayas Development Council) as areas of growth. Other regions, like Bicol, however, are still predominantly rural even in 2000.

By the early 1990s, the urban populations of the regions outside of Manila such as the Ilocos in Northern Luzon, Central and Western Visayas, Northern and Southern Mindanao also started to have higher levels of urban growth. These patterns of growth reflect the predominant rural-urban migration from the 1950s up to the 1990s. By then, there was a major shift of migration to highly urbanizing cities (HUCs) like the regions around Metro Manila, particularly Central Luzon and Southern Tagalog (or Calabarzon). In the same manner, Central Visayas' experience of a moderate urbanization of 45 percent in 1995 can be attributed to Metro Cebu, the second metropolitan region in the country. Like Metro Manila, the surrounding areas of Metro Cebu such as Talisay City, Mandaue City, and Lapulapu City accounted for much of the urban growth rate during this period. The same pattern can be seen in Northern Mindanao and Southern Mindanao regions, where the surrounding areas of Cagayan de Oro City and Davao City (base of Metro Davao), respectively, have experienced tremendous urban growth.

Figure 5. Urbanization Levels by Region, 2000.



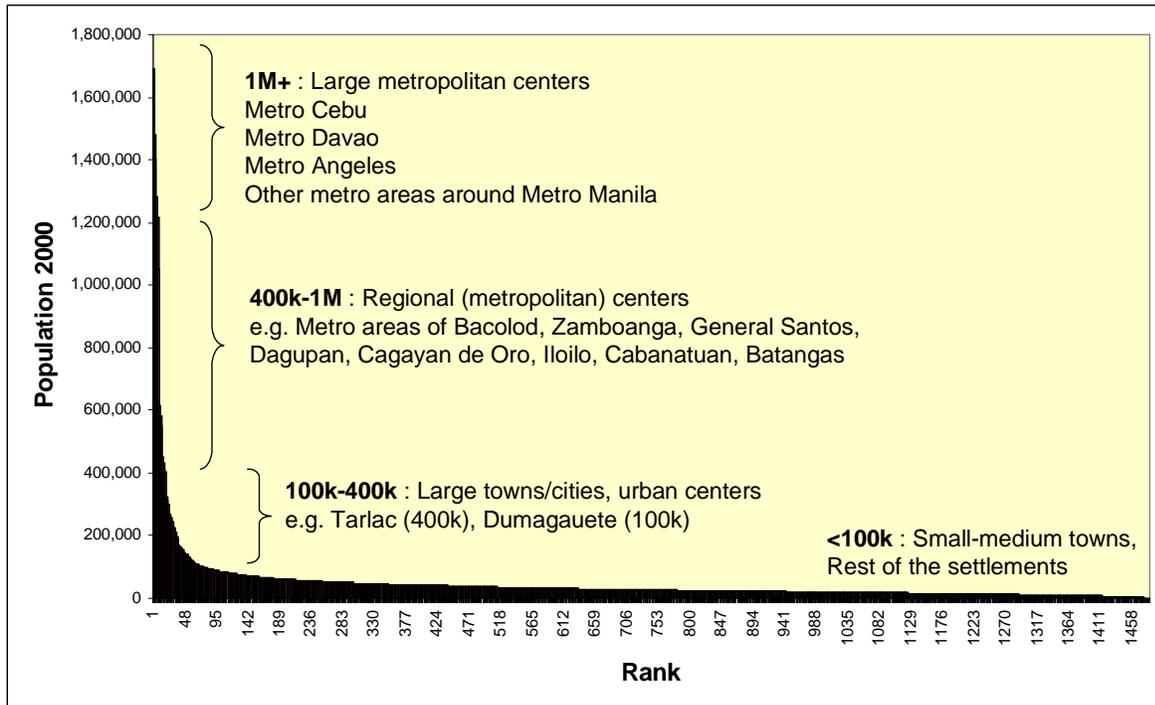
Source: National Framework for Physical Planning 2001-2030 (2002).

Rapid urban growth in the past four decades has resulted in the concentration of populations in three metropolitan regions, namely, Metro Manila, Metro Cebu, and Metro Davao. Of the three, Metro Manila towers over the two regions, with its population almost 12 times the population that of either region. The metropolis serves like a giant economic engine colonizing and appropriating resources from the other regions of the country. Lately, however, this primacy has been slowly eroded because of decentralization of local governance and the government’s desire to diffuse investments outside these traditional centers.

As shown in Table 1, the regions around the metropolitan capital like Central Luzon and Southern Tagalog have always been growing at a faster rate compared to the other regions of the country. In fact, the urban growth of these two regions have always outstripped the other regions so that aside from the NCR, they are the only ones to reach their urban transition in 1990, a decade earlier than that of the whole country.

Of the three island groups, Luzon has always been the most urbanized. Between 1960-1970, Luzon’s urban agglomerations had high growth rates of their population densities. But by 1975, the growth of their population densities started to slow down with average growth rates of about 15 percent to less than 10 percent in 2000. Metro Manila and Manila’s densities grew sharply between 1970 and 1990 but by 1995, the growth in their population densities declined.

Figure 6. Hierarchy of Urban Settlements in the Philippines



Source: Corpuz 2006.

**2.3. Hierarchies of urban settlements.** Corpuz (2006) identifies the hierarchy of Philippine cities and towns as those with: 1) less than 100,000 population, 2) 100,000-400,000, 3) 400,000 - 1 million, and 4) 1 million and above (see Figure\_\_). Large metropolitan centres like Metro Manila, Metro Cebu, Metro Davao and some cities in Metro Manila occupy the top of the hierarchy. Regional (metropolitan) centers with 400,000 to 1 million residents (e.g. Bacolod, Zamboanga, General Santos) constitute the second tier in the hierarchy of cities. Lastly, those urban centers with 100,000 to 400,000 like Dumaguete City are at the bottom rung of the hierarchy.

In the 1970s, with the expansion of the national capital to the surrounding areas, the concept of metropolitan area became popular. Later in the early 1990s, the megacity concept became fashionable. With 10 million population in 1995, Metro Manila became one of the megacities in Asia. Larger regional centres, like Cebu City or Davao City, expanding to the surrounding cities and municipalities often classify themselves as metropolitan.

In the last few years, the growth of smaller cities has been quite phenomenal. Thus, in the 1990s, cities with 200,000 population or more were classified as highly urbanizing cities (HUCs). More significantly, the number of cities with 100,000 population or less have increased during the last 15 - 20 years. Alongside this new hierarchy of urban systems are increasing urban-rural linkages facilitating larger flows of goods, services, and other resources. But the social demands and consequences of economic growth find cities and their local governments in search of solutions to new problems (see casebox below).

**Adapting to Urban Growth and Development in Lipa City and Zamboanga City**

Lipa City in Batangas is more than 70% agricultural land, but an increasing number of its population have engaged in commerce and trade leading to a boom in the business sector. Many attribute this boom to the strategic location of the city, one and a half hours from Manila and thirty minutes from Batangas City, thus, getting the development spillover of these established urban centers. Its strategic location has attracted many multinational companies to locate their businesses here while also attracting migrants from the rural areas searching work. This, along with natural increase, migration has led to the rapid population growth of the city. The growth of the business sector and the rise of in-migration has generated urban issues like inadequate basic services, housing tenure, and solid waste management among others. The citizens of Lipa and its LGU are trying to work together in response to issues of urbanization under the framework of participatory governance.

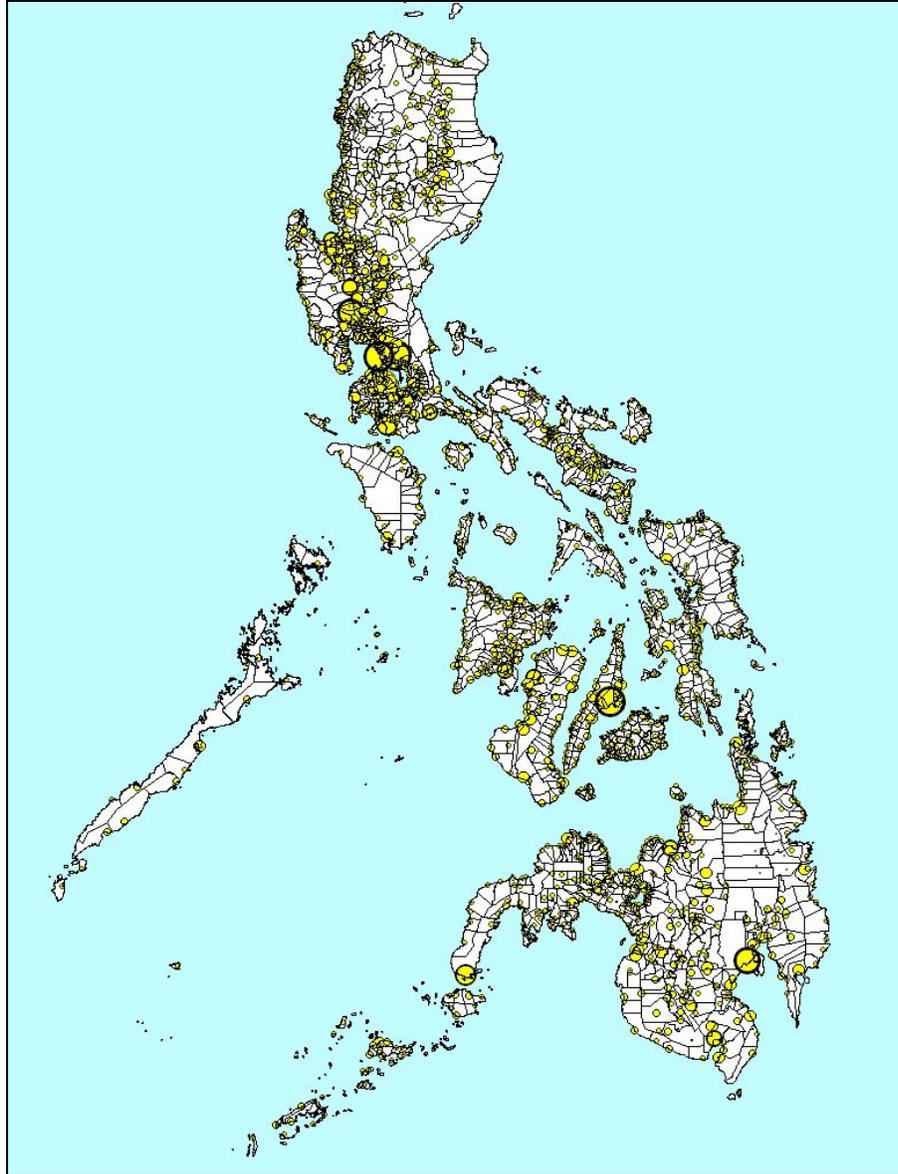
Meanwhile, the rapid growth of Zamboanga City can be largely attributed to in-migration. This sudden influx of migrants from all over the country can be attributed to the promotion of Mindanao as “The Land of Promise”<sup>3</sup> by the Philippine Government. Another factor is the continuing ethnic strife in nearby provinces. This sudden increases in population have caused several problems in the city like traffic congestion, housing, deteriorating services in water, sanitation and health among others. Zamboanga City’s local government recognized the need to improve the delivery of basic services but the city’s revenue base is not strong to generate enough resources.

**2.4. Metropolitan and other Large Urban Markets.** Rapid urbanization and population growth during the last 20 years have led to the expansion of a number of large metropolitan/urban centers. In 1990, there were only 4 urban agglomerations with populations larger than one million (Metro Manila, Metro Cebu, Metro Angeles, and the Malolos-Meycauayan corridor), out of 72 major urban centers and clusters. But by 2007, this number had doubled. This list includes Davao City, the Bacoor-Dasmariñas corridor, the Calamba-San Pedro corridor, and the greater Antipolo area. Based on the 2000 census, Manasan (2004) identified 10 urban agglomerations with relatively formalized institutionalized metropolitan arrangements.

During the same period, the number of urban centers between 500,000 and one million had increased from six to ten, and those between 100,000 and 500,000 from 41 to 54. (Figure 3.3) This is consistent with the findings that current growth trends will lead to a larger number of urban centers while the population share of Metro Manila and the top quintile cities will tend to decline in the future (Corpuz 2000).

**Figure 6. Urban Centers in the Philippines, 2007.**

<sup>3</sup> PopCom and UNFPA. (2004).



Source: Corpus, 2007.

## 2.5. Urban Primacy of Metro Manila

Metro Manila, historically the primate city of the country, has always been the major locus of urban investments and development. It is the national center of growth and the country's premier urban center. With a land area of only 636 square kilometers and a population of nearly 12 million in 2007, it has the highest population density in the country and accounts for about 13 percent of the total population. The primacy of Metro Manila can be seen in its population size, density, and its political-economic and socio-cultural power (see Table 2 below). Before the nation and the international community, Metro Manila is viewed synonymously with the Philippines and the Filipino people (Porio 2009). As the economic and political epicentre of the country, many politicians and citizens outside the metropolis call it "Imperial Manila" with the

state bureaucracies and their functionaries treating the rest of the country as their hinterlands and/or vassals. Manila is the major connecting point between the country and the rest of the world, serving as the main transport, finance, political and social hub of the nation.

Table 2. Comparative Population Growth and Density, Philippines and Metro Manila(1980-2007).

| Year | Philippines |         | Metro Manila |                      |         |
|------|-------------|---------|--------------|----------------------|---------|
|      | Total Pop   | Density | Population   | % Share to Total Pop | Density |
| 1980 | 48,098,460  | 141     | 5,926,000    | 12                   | 9,565   |
| 1985 | 54,668,332  | 161     | 6,942,204    | 13                   | 11,206  |
| 1990 | 60,703,206  | 178     | 7,948,392    | 13                   | 12,830  |
| 1995 | 68,616,536  | 201     | 9,454,040    | 14                   | 15,260  |
| 2000 | 76,504,077  | 225     | 9,932,560    | 13                   | 16,032  |
| 2007 | 88,574,614  | 260     | 11,553,427   | 13                   | 18,650  |

Source: Philippine Yearbook (NSO), various years

As the city of Manila expanded and incorporated the surrounding areas in the 1970s, it became the National Capital Region (NCR). This also started the transformation of the urban landscape and the organization of several sub-centers within the metropolis. Makati, a privately planned community of the Ayala Corporation, emerged as the leading financial and commercial center starting in the 1970s, an alternative to the increasingly congested Manila. Over the years, Makati became the headquarters of most major national/international corporations, embassies, and overseas development assistance agencies (ODA). The city also became synonymous with exclusive or gated communities, expensive hotels, leisure, and consumption spaces. By the 1980s, other commercial and residential sub-centers emerged such as the Ortigas Center in Mandaluyong City, EastWood City in Quezon City, and Ayala Alabang in Muntinlupa City. Recent additions to these sub-centers include The Global City in Taguig City (formerly Fort Bonifacio, a military reservation) and the Mall of Asia (MOA) in Paranaque City (see map of MM). Currently, Metro Manila holds the distinction of having three (Mega Mall, SM City, and MOA) of the largest shopping malls in the world.

The national capital region is also the educational and cultural center, accounting for almost one-half of the number of universities and educational institutions and having the monopoly of the film, communications media (print, tv, broadcasting) institutions and networks in the country. As shown in the above figures, the demographic, economic, and socio-cultural primacy of the national capital region is undisputed. What mars this primacy is its dwindling quality of life and questionable environmental sustainability. The metropolis is generally viewed both by residents and outsiders as a city that is hard to navigate. Traffic jams, floods, air and water pollution, demonstrations and protests, impermeable gated communities, exclusive commercial and consumption spaces, empowered urban poor groups in huge informal settlements, all constituting the metropolis (Porio 2009).

NCR's primacy over other urbanized regions can also be seen in the following figures. In 2008, the capital region accounted for the bulk of the country's economy with a 33 percent share of the total GDP followed by the adjoining provinces of CALABARZON (Cavite, Laguna,

Batangas, Rizal, Quezon) with 12.3 percent. NCR, the fastest growing economy in 2006 contributed 2.2 percentage points to the growth of the GDP, while contributing also the highest to the growth of industry with 1.9 percentage points. In terms of GDP growth rates, the capital region has the highest with 8.8 percent, compared to the national average of 5.4 percent (NCSB 2006). The importance of Metro Manila is also seen in terms of the share of foreign direct investments (FDI) it receives compared to the rest of the country, which about one-third of the country's FDI (Gonzalez, et al. 2001). Another indicator of the NCR's economic primacy is that it accounts for the largest share in the growth of the services sector, which claimed the largest share in the growth of the national economy at 48.7 percent in 2008 (Porio 2009, NUDF 2009).

In 2003, the metropolis had a real per capita income of P39,639, almost double that of the second highest, the Cordillera region with P17, 836. But in terms of social welfare indicators, Metro Manila's human development index (HDI) of 0.777 suffers in comparison to other cities in economically advanced regions (e.g., Hongkong, 0.916; Singapore, 0.907). Compared to other cities in the Philippines, however, Metro Manila's HDI score does not appear so bad. Cebu, the second largest city had an HDI score of 0.728 while Davao, the third largest city had 0.702.<sup>4</sup> In terms of life expectancy, Metro Manila residents only have 70 years compared to Cebu's life expectancy of 72 years. Of course, these indices are much higher compared to the province of Tawi-Tawi, which had the lowest life expectancy score of 51 years old (Porio 2007).

Meanwhile the living standards of Metro Manila are far superior compared to those of other regions. Its implicit price index recorded at 541.82, suggesting that the 2006 prices of goods and services produced in the metropolis are more than five times the prices in 1985. This is high compared to the second highest, the Eastern Visayas region at 490.85 to the lowest (359.85) in the provinces of Mindoro, Marinduque, Romblon and Palawan (NCSB 2006).

In 1960, only 30 percent of the country resided in urban areas but Metro Manila's level of urbanization was already 98 percent and reached 100 percent in 1970 (See Table 2). The primacy of the metropolis is also evident when compared to the urban growth patterns of the other regions in the country. In 1960, there were only three regions with relatively high levels of urbanization, Western Visayas (30 percent) and Southern Tagalog (27 percent) and Central Luzon (27 percent). The high urban growth rates of the last two regions are largely due to their proximity to Metro Manila. These regions have consistently benefited from the spillover of urban activities and investments from the metropolis. Thus in 2000, Central Luzon and Southern Tagalog had 61 percent and 58 percent urban population, respectively. Among the regions, these two had the highest concentration of urban population.

Table 2 above shows Metro Manila's primacy in population density. In the 1980s, it's population density was below 10,000 persons per square kilometer but this leaped to 17, 942 persons per square kilometer in 2000, and peaked at 18,650 persons per square kilometer in 2007. Among the cities in the metropolis, the old city of Manila has the highest population density with 66,429 persons per square kilometer partly because of its high number of informal settlers. This is attributed to the fact that it was, though to a lesser extent today, the center of

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<sup>4</sup> The lack of data disaggregated down to the city/municipal level in most national statistical systems indicate the lack of recognition of the city as a unit of analysis or a key variable in social science scholarship. This can be clearly seen in the way HDI indicators are disaggregated.

trade, commerce, and politics dating back to the colonial times. Quezon City, where most government institutions are located (including the House of Representatives), has a lower population density of 15, 605 persons per square kilometer owing to its having the biggest land area among the cities as well as having the largest number of informal settlers. Makati City, the main financial business district, has a 27, 890 persons per square kilometer population density.

Metro Manila also handles the largest volume of international trade and transactions. According to the NSO (2001), it accounts for the largest regional shares in financial service (78 percent), transportation, communication, and storage sector (53 percent), services (45 percent) and the industrial sector (38 percent). ). But the emergence of other urban centers outside of Metro Manila has resulted in the declining contribution of Metro Manila to the GDP growth. In 2000, Metro Manila contributed 43.5 percent to the GDP growth but in 2007, this declined to 33 percent.

Lately, however, the dominance of the metropolis has been slowly eroded by other urban/regional centers vying to attract investments both from local and external fund sources. This started the trend of economic and demographic dispersal towards the surrounding urban areas of the metropolis and other urban centers of the archipelago.

## **2.6. Growth of the Extended Metropolitan Region (EMR) and Other Regions**

From the 1950s to the 1980s, the major concern was focused on the growth of the national capital, Manila, and of the traditional urban centers located in the regions like Cebu City in Central Visayas and Davao City in Southern Mindanao. By the early 1990s, the expansion and growth of Metro Manila as a megacity received a great deal of attention. During this period, several intertwining trends and processes became very significant, namely, 1) growth and attendant problems of Metro Manila as a megacity, 2) the growth of the expanded metropolitan region (EMR)<sup>5</sup> or mega-urban regions<sup>6</sup> 3) the expansion of highly urbanizing cities (HUCs) in the three island groups of Luzon, Visayas and Mindanao, and 4) rapid growth of smaller cities in the peripheral regions of the country.

The EMR consists of the areas surrounding the metropolitan area which has been receiving the spill-over and encroachment of populations from the traditional urban centres (Jones 2004). This is illustrated by the Bangkok Metropolitan Area (BMA) or the Jakarta Metropolitan Region. In the Philippines, aside from Metro Manila, the last two decades have seen the creation of EMRs such as Metro Cebu, Metro Davao, Metro Naga and so forth. These have also seen the creation of new governance structures for these integrated urban agglomerations (Gonzales et al 2004),

Jones (2002, 2004) noted that the growth of large Asian cities seemed to have slowed down, but in reality, the rapid growth is occurring in the areas surrounding them. A large part of

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<sup>5</sup> Jones (2002) coined the term expanded metropolitan regions to describe the expansion of the traditional urban core to the surrounding areas.

<sup>6</sup> Laquian (2006) used the term, mega-urban region, to describe the extension of the traditional urban area to the surrounding regions.

the growth of the urban population is in the EMRs or beyond the city administrative boundaries where urban activities have been invading and incorporating the rural fringes. These zones immediately outside the metropolitan area are witnessing marked urban expansion, where immigration is greatest, and occupational changes most rapid (Jones 2002). Laquian (2008), quotes Friedmann (1992) who described this phenomenon:

Urban fields typically extend outward from the city core to a distance of more than 100 km; they include the city's airport, new industrial estates, watersheds, recreation areas, water and sewage treatment facilities, intensive vegetable farms, outlying new urban districts, already existing smaller cities, power plants, petroleum refineries, and so forth, all of which are essential to the city's smooth functioning. City regions on this scale can now have millions of inhabitants, some of them rivaling medium-sized countries. This space of functional/economic relations may fall entirely within a single political-administrative spaces of cities, countries, districts, towns, provinces, etc. (Friedmann, 1992).

McGee (1995) coined the term *desa* (village) and *kota* (city) from the Bahasa language, to describe the unique feature of Asian urban agglomerations with their mixed rural-urban characteristics. He noted that these city regions tend to “produce an amorphous and amoeba-like spatial form, with no set boundaries or geographic extent and along regional peripheries; their radii sometimes stretching 75 to 100 kilometers from the urban core. The entire territory – comprising the central city, the developments within the transportation corridors, the satellite towns and other projects in the peri-urban fringe and the other zones – is emerging as a single, economically integrated “mega-urban region” or “extended metropolitan region” (McGee quoted in Laquian 2008). Eleven percent (11%) of Southeast Asia's population live in mega-urban regions.

Utilizing Friedmann's (1992) and McGee's (1995) typology, Laquian proposed three distinct types of mega-urban regions in Asia, namely, 1) urban corridors, 2) mega-city dominated city regions, and sub-national city clusters. He suggested that Metro Manila, Bangkok, and Jabotek (Jakarta, Bogor-Tangerang-Bekasi) belong to the second type of mega-urban region. These descriptions of the expansion of traditional urban core or mega-cities aptly summarize the characteristics involved in the massive growth of regions and provinces around Metro Manila, Metro Cebu, and Metro Davao. Partly owing to this trend, the rural populations surrounding these areas have been dramatically opened up by new ideas through transport and communications development, greater population mobility, and spread of education (Hugo 1996, Jones 1997).

## **2.7. Population Redistribution in Mega Manila and Other Regions**

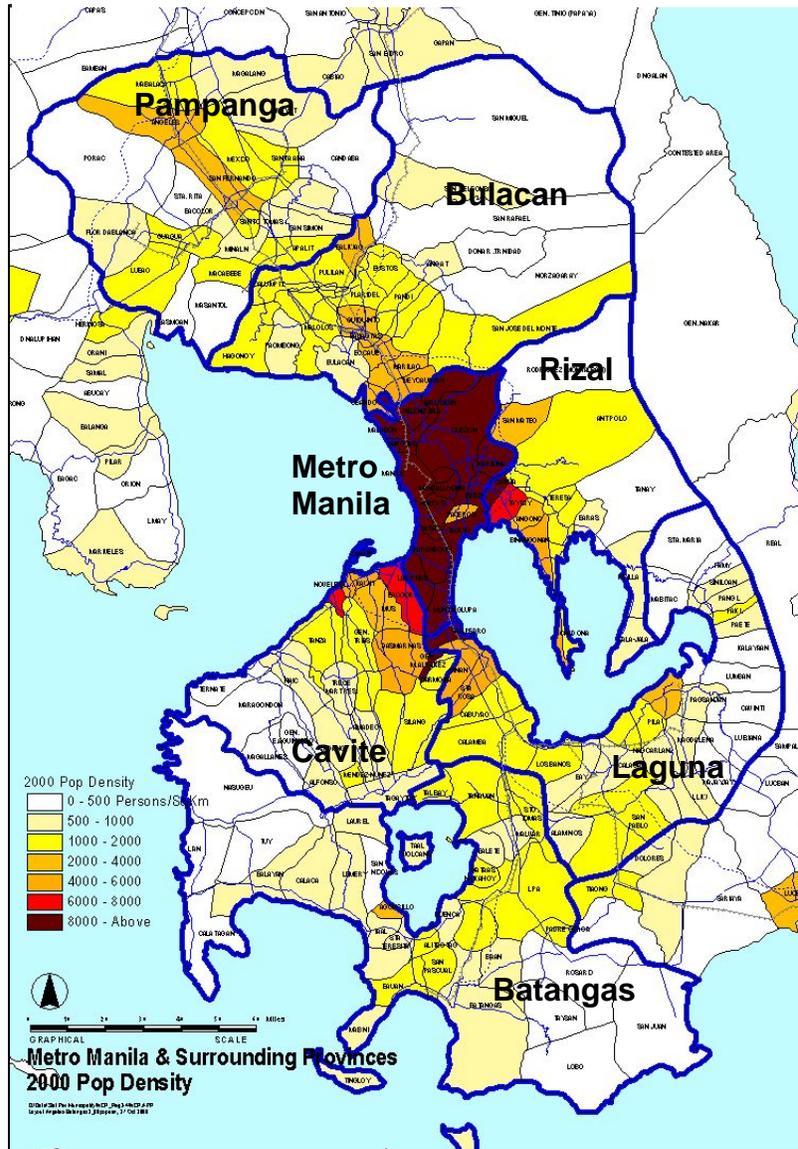
(Jones 2001:120) noted that population redistribution in industrialized countries is no longer characterized by rural-urban movement but by movement from one metropolitan area to another and within metropolitan areas. In the Philippines, the pattern of population movement and redistribution seem quite different. Three parallel but interrelated patterns of population

movement are evident. From 1950 to 1990, rural migration to the national capital, provincial capitals, and regional centers was the dominant pattern.

Meanwhile, during this period (1970s), the Philippine state promoted the labour migration of engineers, technicians and construction workers to the booming oil economies in the Middle East. By the 1980s and 1990s, this male dominated migration stream largely became a female-dominated migration stream, with Filipino women going out as nurses, domestic helpers, caregivers, factory workers, and mail-order brides to the expanding economies in Asia (Hongkong, Singapore, Korea, Japan), Middle East, Europe, and the USA. Today, overseas Filipino workers account for about 10 percent of the total population and about one-fourth of the labour force. In 2008, the remittances amounted to US\$ 16 billion, much larger than the contribution of foreign direct investments and development assistance (Go 2006, Porio 2008, Tigno 2008). This labor migration, which led to the overseas Filipino workers (OFWs) phenomenon, is also part of the larger rural-urban migration trend in the past decades.

During the last decade, however, population movement towards highly urbanizing cities (HUCs) has increasingly become dominant. This trend reinforces the observation that, lately, the most significant pattern of urban growth has been from the urban core to other town centers or cities in the fringes or to other expanding regional centers (e.g., Metro Cebu, Metro Davao or Metro Angeles). Thus, Jones (2002, 2004), has suggested that in Southeast Asian cities, it is more meaningful to examine the growth of metropolitan centres like Metro Manila, Bangkok Metropolitan Area (BMA) or the greater Jakarta (or JABODETABEK for Jakarta, Bogor, and Depok, Bekasi and Tangerang), which include the inner and outer rings of the extended metropolitan region (see figure 7). Thus, in contrast to industrialized countries, in Southeast Asian countries, the fastest urban growth and transformation is now happening in the areas surrounding major urban agglomerations. This has led a majority of urban planners and government officials in the Philippines, to constitute Metro Manila and the surrounding regions as Mega Manila (NUDF 2009). This configuration also corresponds to Laquian's (2008) mega-urban region (see figure 7 below).

Figure 7. Map of Mega Manila 2000 (Metro Manila and Surrounding Provinces).



Source: Corpuz, 2006b.

Owing to the expansion of Metro Manila into the EMR, the past two decades have witnessed the slowing down of the growth of traditional urban centres. Thus, Metro Manila's population growth declined from 3.3 percent between 1990-1995 to 1.06 between 1995-2000. Interestingly, however, this rises again to 2.04 in 2007. This could be a reverse spillover from the rapidly growing fringes and the natural population increase whose decline is painfully slow.

Table 3. **Population size, density and growth by zone in Manila in 1980 and 1990.**

|              | Population ('000) |               | Density (persons/km <sup>2</sup> ) |              | Annual growth (%) |
|--------------|-------------------|---------------|------------------------------------|--------------|-------------------|
|              | 1980              | 1990          | 1980                               | 1990         | 1980 – 1990       |
| Core         | 5,926             | 7,948         | 9,318                              | 12,947       | 3.41              |
| Inner Zone   | 2,820             | 4,107         | 964                                | 1,403        | 4.56              |
| Outer Zone   | 2,932             | 3,908         | 312                                | 416          | 3.33              |
| <b>Total</b> | <b>11,678</b>     | <b>15,963</b> | <b>901</b>                         | <b>1,231</b> | <b>3.67</b>       |

Notes: Core - Metro Manila

Inner Zone - parts of the provinces of Cavite, Pampanga, Rizal, Batangas, Bulacan and Laguna

Outer Zone - parts of the provinces of Cavite, Pampanga, Rizal, Batangas, Bulacan and Laguna

Basis: Jones 2002 (Southeast Asian Urbanization and the Growth of Mega-Urban Regions)

Table 4. **Growth of Population by zone in Manila, 1990 - 2000.**

|                                 | 1990 <sup>a</sup><br>(‘000) | 2000<br>(‘000) | Average annual increase (%) |
|---------------------------------|-----------------------------|----------------|-----------------------------|
| <b>Metro Manila (core)</b>      | <b>7,945</b>                | <b>9,933</b>   | <b>2.3</b>                  |
| <b>Manila zones<sup>b</sup></b> | <b>6,481</b>                | <b>9,855</b>   | <b>4.3</b>                  |
| <b>Manila Region</b>            | <b>14,426</b>               | <b>19,788</b>  | <b>3.2</b>                  |
| <b>Philippines</b>              | <b>60,703</b>               | <b>72,345</b>  | <b>1.9</b>                  |

Notes:

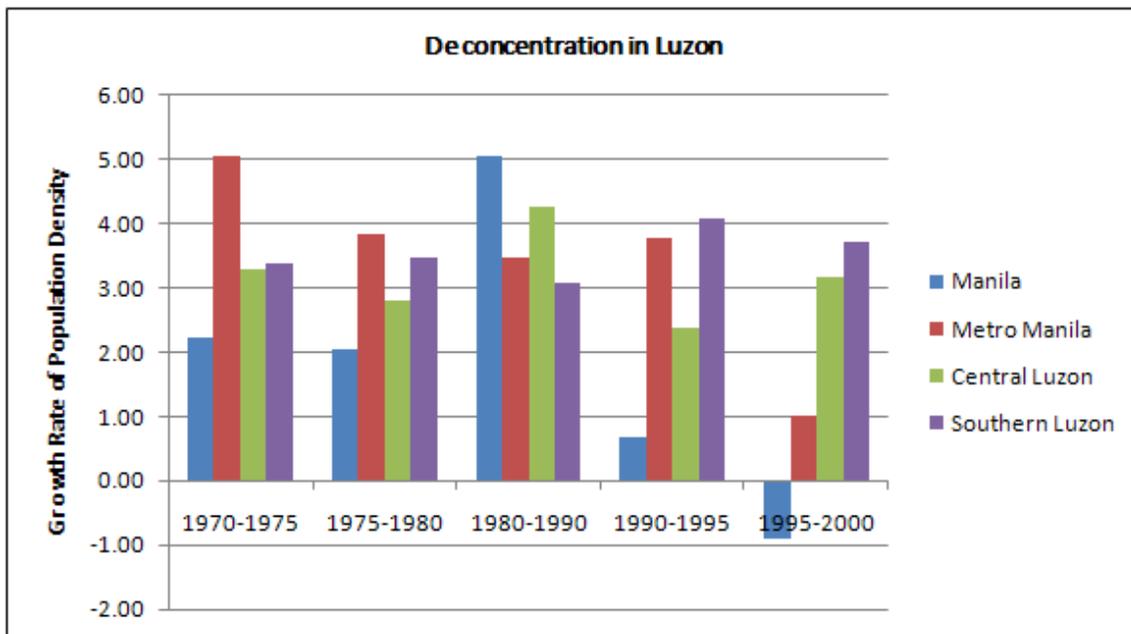
- Figures differ slightly from those in the previous table because of updating and minor definitional differences
- Inner and outer zones – provinces of Bulacan, Batangas, Cavite, Laguna and Rizal.

*Basis: Jones 2002, Southeast Asian Urbanization and the Growth of Mega-Urban Regions.*

The EMR is indicative of the explosive rate of urbanization in the Philippines. This rapid expansion has resulted in the conversion of thousands of hectares of agricultural land near Metro Manila (e.g., Calabarzon) into commercial, industrial and residential areas (Carino and Carino 2008). In like manner, rural to urban land conversion can be also be seen in Metro Cebu, Metro Davao, and other urban regions that have established metropolitan institutional arrangements (Manasan 2004). These conversions often result in a sharp rise in land prices, diminishing the prospects of locals, especially those from the lower income sector, to acquire residential lots or security of tenure to their homes.

**Deconcentration in Luzon.** The discernible shift of population movement from Metro Manila to the surrounding areas is also consistent with the deconcentration of Luzon in the last decade or so (see Figure 6 below). The concentration of the population in the original city core of Manila is evident up to the mid 1980s when the expansion to the surrounding regions started and seemed to peak in the 1990s onwards. Alongside this trend of increasing population densities in the urban centres also saw the proliferation of informal settlements, often without adequate access to housing, water, sanitation facilities and other basic services. About 30 percent of the population in Asian cities like Manila, Mumbai, and Jakarta live in these informal settlements.

Figure 8. Deconcentration in Luzon



Source: Philippine Yearbook 1994 and 2006

Notes:

- Central Luzon includes the provinces of Bataan, Bulacan, Nueva Ecija, Pampanga, Tarlac and Zambales
- Southern Tagalog includes the provinces of Cavite, Laguna, Batangas, Quezon (or Calabarzon for short), Marinduque, Occidental Mindoro, Oriental Mindoro, Palawan, Rizal and Romblon.
- Metro Manila includes the following cities: Manila, Caloocan, Las Piñas, Makati, Mandaluyong, Marikina, Muntinlupa, Parañaque, Pasay, Pasig, Quezon City, Valenzuela, Malabon, Navotas, Pateros, San Juan and Taguig and the municipality of Pateros.

The Southern Tagalog region (or CALABARZON) and Region III (Central Luzon) have benefited from the urbanization of Metro Manila, with their population density in 2007 of 707 and 451 persons per square kilometer, respectively. But this is just a fraction of NCR's, thereby, maintaining the latter's primacy to cities and regions in the periphery. Worthy of note however, are the relatively high percentage increases (26 percent and 18.4 percent, respectively) of these regions' densities from 2000 to 2007 compared to that of Metro Manila (16.3 percent) or that of the country (15.6 percent).

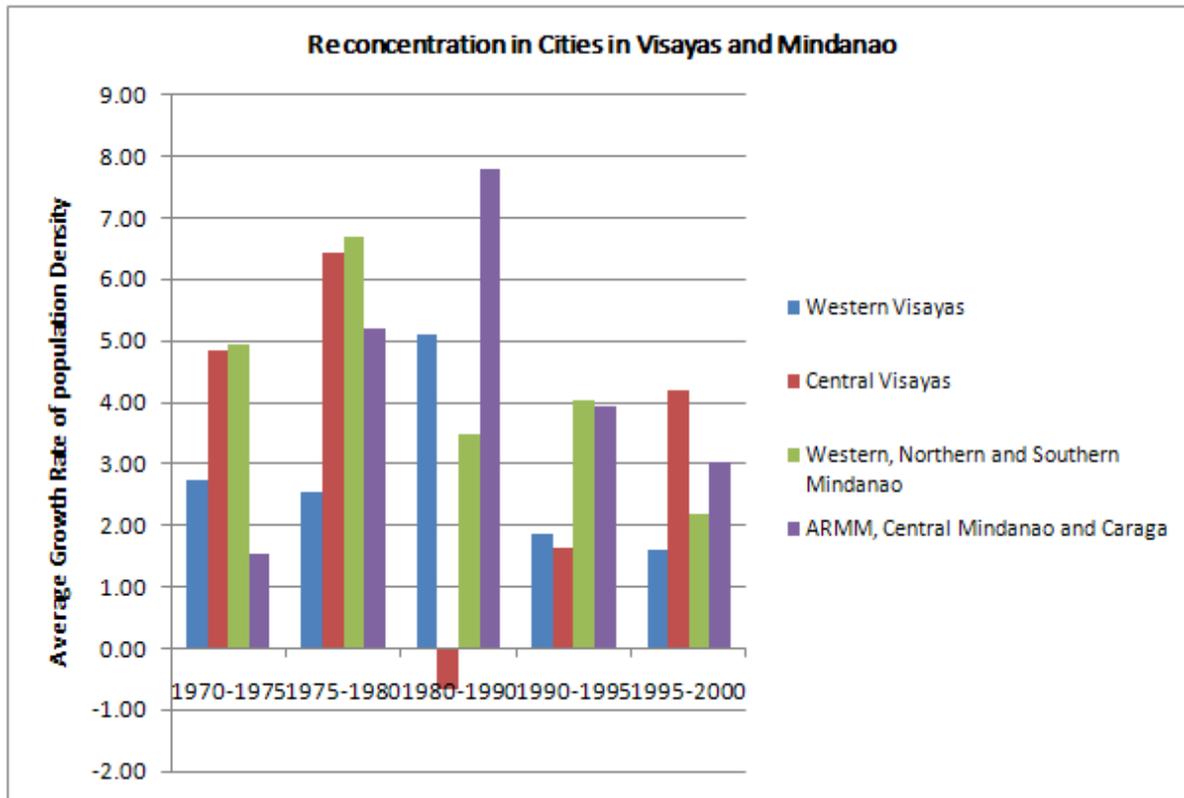
As mentioned earlier, Metro Manila continues to dominate the urban hierarchy and domestic economy. It already represents the largest concentration of consumers in Southeast Asia, although its purchasing power is below other cities in the region. By 2015, it is expected to become the 15<sup>th</sup> largest city in the world. (Webster, Corpuz, Pablo 2003; UN 2002). The real impact of Metro Manila, however, is underappreciated because the extent of its influence goes well beyond its administrative boundaries. Already, the major urban centers of its neighboring provinces have become part of the day-to-day functional orbit of Metro Manila. While Metro Manila's growth seems to be oriented towards its periphery, the growth directions of its neighboring provinces (measured by the historical movements of population centroids as well as transport patterns) are increasingly biased towards the capital region. As seen in Figure 8 above, the effective and functional coverage of Metro Manila now includes much of Bulacan, Pampanga, Rizal, Laguna, Cavite and Batangas, melded into what may be termed as a Mega Manila by the limited road and highway network that extends into the provinces (Corpuz 2006).

The Mega Manila region overshadows the rest of the urban systems in the country. Although it occupies less than 4 percent of the country's land territory, it accounts for 30 percent (26 million) of the country's population and 50 percent of economic output. The annual rate of population in the Mega Manila region is almost 3 percent, faster than the city of Manila at .04 percent and that of Metro Manila at 2.11 percent. Compared to the province of Cebu where the second largest urban center of the country is found, Mega Manila's land area is almost seven times larger. If the present growth rate continues, it will double its population in less than 24 years, adding on the average, more than one million people every year to the region.

Mega Manila's size and growth rate ensure it to be the country's primary market and the main magnet for both national and foreign investments. To a lesser extent, this pattern of expansion to the surrounding regions and dominating their activities is being repeated in other metropolitan areas like Metro Cebu and Metro Davao and determining much of what happens to the rest of the urban systems in the country.

**Reconcentration in Visayas and Mindanao.** While the growth rates of population densities in the traditional urban core of Manila and Metro Manila have sharply declined, those in Central Luzon and Southern Tagalog have risen during the last 20 years. Meanwhile, in the urban areas of Central Visayas, Western, Northern and Southern Mindanao, the growth rates have maintained their relatively high levels of growth. In particular, the urban areas of the Autonomous Region of Muslim Mindanao, Central Mindanao and Caraga have registered high growth rates in their population densities during this period (see Figure 9 below).

**Figure 9. Reconcentration in Cities in Visayas and Mindanao**



Source: Philippine Yearbook 1994 and 2006

Note:

- Cities in Western Visayas include Iloilo city and Bacolod city
- Cities in Central Visayas include Cebu city and Mandaue city
- Cities in Western Northern and Southern Mindanao include Zamboanga city, Cagayan de Oro city, Iligan city, and Davao city
- Cities in ARMM, Central Mindanao and Caraga include Marawi city, Cotabato city, General Santos city, and Butuan city

**Migration and urbanization.** Definitely, rural-urban migration is a significant contributor to the explosive growth of urban areas. This is seen in the fact that while natural increase of rural areas has always been higher than urban areas, the overall growth of the latter far outstripped the former. From 1950 to 2000, urban populations grew at an average of 3 percent compared to an average of 1 percent for rural populations. For the latter, the city is a big magnet for higher income, livelihood, and job opportunities.

Rural-urban migration in the post-war and post-martial law eras has been fueled by the lack of opportunities, deteriorating peace and order, and the lack of infrastructural development and basic services in the countryside, and the corresponding urban bias in investments and inputs to development. Import-substitution industrial strategies and economic protectionism from the 1950s to the 1960s was unsuccessful in developing a strong foundation for a vibrant industrial sector. Meanwhile, agrarian reform and other rural development programs of the last few

decades, have had a dismal record in their attempts to de-concentrate ownership of land and assets and to release the productive potentials of the countryside.

Up to the 1990s, rural-urban migration to Metro Manila and the major urban centers was the dominant pattern. But by the early 1990s, there was a pronounced shift of migration to highly urbanizing cities. Thus, consistent with the earlier patterns of urban growth, rural-urban migration to the national capital region was high at 3.7 percent between 1975-1980 but declined to 2.1 percent between 1985-1990. Among the regions, those around Metro Manila like Region III and IV consistently gained migrants between 1975 and 1990 while most of those in Northern Luzon (Ilocos, Cagayan Valley), Visayas (Regions VI, VI, VII) and Mindanao had negative net migration rates in both periods. Interestingly, both the Bicol region and Western Mindanao (Region IX) had negative net migration rates between 1975-1980 but had positive net migration rates between 1985-1990. Meanwhile, Regions X (Northern Mindanao) and XI (Southern Mindanao) have always been net gainers of migrants during these periods. It is interesting to note that Region XII while gaining migrants in the earlier decades lost (-0.6) some of its population between 1985-1990. This loss could be attributed to the problematic peace and order situation in this region.

Table 5 Interregional migration rates by sex and by region of destination (1975-1990)

| <b>Percent of Interregional Migrants by Sex and Region of Destination and Net Migration Rate: 1975-1980 and 1985-1990</b> |                                  |                  |               |                                       |                  |               |                                       |
|---|----------------------------------|------------------|---------------|---------------------------------------|------------------|---------------|---------------------------------------|
| <b>Region</b>   |                                  | <b>1975-1980</b> |               |                                       | <b>1985-1990</b> |               |                                       |
|   |                                  | <b>Male</b>      | <b>Female</b> | <b>Net Migration Rate<sup>1</sup></b> | <b>Male</b>      | <b>Female</b> | <b>Net Migration Rate<sup>2</sup></b> |
| NCR   | National Capital Region          | 39.93            | 60.07         | 3.70                                  | 41.83            | 58.17         | 2.12                                  |
| CAR   | Cordillera Administrative Region | -                | -             | -                                     | 47.66            | 52.34         | -                                     |
| I   | Ilocos                           | 46.19            | 53.81         | -1.79                                 | 47.44            | 52.56         | -0.85                                 |
| II  | Cagayan Valley                   | 91.67            | 8.33          | -0.17                                 | 50.72            | 49.28         | -0.97                                 |
| III   | Central Luzon                    | 45.77            | 54.23         | 0.25                                  | 47.26            | 52.74         | 1.63                                  |
| IV  | Southern Tagalog                 | 49.24            | 50.76         | 1.43                                  | 49.07            | 50.93         | 1.43                                  |
| V   | Bicol                            | 49.77            | 50.23         | -2.25                                 | 50.15            | 49.85         | 2.97                                  |
| VI  | Western Visayas                  | 48.76            | 51.24         | -1.97                                 | 49.01            | 50.99         | -1.43                                 |
| VII   | Central Visayas                  | 48.22            | 51.78         | -2.01                                 | 48.40            | 51.60         | -1.17                                 |
| VIII  | Eastern Visayas                  | 49.35            | 50.65         | -3.13                                 | 49.75            | 50.25         | -2.27                                 |
| IX  | Western Mindanao                 | 52.20            | 47.80         | -0.47                                 | 52.08            | 47.92         | 0.59                                  |
| X   | Northern Mindanao                | 51.64            | 48.36         | 1.69                                  | 51.82            | 48.18         | 0.66                                  |
| XI  | Southern Mindanao                | 51.62            | 48.38         | 1.07                                  | 51.79            | 48.21         | 0.48                                  |
| XII   | Central Mindanao                 | 50.80            | 49.20         | 0.99                                  | 50.79            | 49.21         | -0.61                                 |

Source: Philippine Yearbook, 1992 and 1997

\* No data published on interregional migration beyond 1990.

As mentioned earlier, part of this rural-urban migration is the recurring labor migration of overseas Filipino workers (OFWs) since the 1970s. Most of these migrants come from the urbanized areas of the region or provinces (Lopez 2005). Labour migrants also possess higher education and skill levels and usually come from the higher socio-economic strata of their places of origin (Szanton-Blanc 1995, Trager 1987).

The gender differences in migration are quite striking. In the movement towards urban areas, women outnumber men. But as the level of urbanization of the place of origin goes up, the lower is the sex ratio of youth migrants. This is quite consistent with the overall interregional patterns of migration seen in the above table. Migration has also resulted in the “feminization” of urban and metropolitan age-structures, and possibly, the “masculinization” in certain rural places of origin (Xenos and Gultiano 2004). This exemplifies the female-dominated migration stream, particularly distinctive in the Philippines compared to other Asian countries (Khoo 1986). The gender differentials in migration are also reflected in the different levels of access to education, employment, income, education, health services and social participation, as discussed in the later section of this report.

Another important dimension in the migration pattern is the youth bulge in the national population profile (Xenos and Gultiano 2004). The large percentage of the younger generation has increasingly been moving from less urbanized to more urbanized areas, resulting in a massive geographic redistribution of the population. Based on the 2000 census data, Xenos and Gultiano (2004) found that about 10 percent of youth (aged 15-29 years old) in the less urbanized areas and 19 percent in the National Capital Region had resided in another province or municipality five years earlier.

Age dependency ratios are significantly higher in rural areas than in urban areas. While this could be interpreted as a demographic advantage to the urban population, it is clearly a disadvantage to the rural population. The age and gender selectivity of migration has important implications for both urban and rural populations as well as the policies and programs shaping these differentials.

The above gender and age differentials in migration are also a function of the employment and livelihood opportunities that opened up in cities and other urbanized areas. The dominance of light, export-oriented industries and the expansion of services attracted young and/or female workers.

But despite the shortage of employment opportunities and congested conditions, the NCR and other cities continue to attract migrants from other regions of the country, who come to the metropolis in search of employment and better income opportunities. Compared to the national growth of 2.11 percent, Metro Manila growth is about 2.25 percent per year. In 2020, the population of the metropolis is projected to reach 19.43 million.

### 3. Urbanization, Economic Growth, and Urban Development

Urban growth of populations is largely due to the concentration of industrial and services in the cities. Urbanization and the attendant agglomeration economies can result in greater productivity levels for the national economy. With urbanization, the benefits of economies of scale can result in more efficient and effective delivery of public services such as public transportation, basic services, health and sanitation facilities, sewerage treatment plants, etc. The concentration of social and physical infrastructure can also improve the taxable capacities of cities resulting in better mobilization of resources for infrastructure development and services.

The Philippine economy has been largely transformed into an urban-based economy during the last 15 years or so. This can be seen in the continuous decline of the growth of the agricultural sector and with the increasing productivity, employment and income opportunities generated by the services and industrial sectors. The share of the urban-based services and industry sectors in the 1980 rose from 28 percent to 77 percent in the 1990s and over 80 percent in 2000. Meanwhile, the share of the industrial sector remained at a little over 30 percent (NSO 2001).

Table 6. Gross Domestic Product by Industrial Origin at Current Prices (in millions pesos)

| Year | Agri., Fishery, Forestry |                | Industry Sector |                | Service Sector |                | GDP     |
|------|--------------------------|----------------|-----------------|----------------|----------------|----------------|---------|
|      | Amount                   | % Share to GDP | Amount          | % Share to GDP | Amount         | % Share to GDP |         |
| 1997 | 457983                   | 18.9           | 779786          | 32.1           | 1188974        | 49.0           | 2426743 |
| 1998 | 451645                   | 16.9           | 838367          | 31.5           | 1375048        | 51.6           | 2665060 |
| 1999 | 510494                   | 17.1           | 911074          | 30.6           | 1555337        | 52.2           | 2976905 |
| 2000 | 528868                   | 15.8           | 1082431         | 32.3           | 1743428        | 52.0           | 3354727 |
| 2001 | 549113                   | 15.1           | 1149120         | 31.6           | 1933241        | 53.2           | 3631474 |
| 2002 | 598849                   | 15.1           | 1261635         | 31.8           | 2103388        | 53.1           | 3963873 |
| 2003 | 631970                   | 14.6           | 1378870         | 31.9           | 2305562        | 53.4           | 4316402 |
| 2004 | 734171                   | 15.1           | 1544351         | 31.7           | 2593032        | 53.2           | 4871555 |
| 2005 | 780072                   | 14.3           | 1735148         | 31.9           | 2922685        | 53.7           | 5437905 |
| 2006 | 855452                   | 14.2           | 1907980         | 31.6           | 3269192        | 54.2           | 6032624 |
| 2007 | 937342                   | 14.1           | 2082735         | 31.3           | 3631243        | 54.6           | 6651320 |

Data Source: Economic and Social Statistics Office, National Statistical Coordination Board

More than half of the country's gross domestic product (GDP) are generated by urban centers. But over the years, there has been an increasing disconnect between urbanization and manufacturing or industrial growth. Industrial growth and manufacturing in most of the regions have stood still or still lagging behind while urbanization continues to grow, though at a slower pace than in the earlier decades. As the urban economies moved into the late 1990s and early 21<sup>st</sup> century, the main driver of growth has been the expansion of services. Thus, increases in productivity and employment in the last decade have been mainly accounted for by the expansion of the services sector, touted by economists and planners as the sunrise industry of the Philippines.

Table 6 above shows the dominance of the services and industrial sectors' contribution to the gross domestic product (GDP) and the declining importance of the agricultural sector. Thus, in the last decade, the expansion of the services sector has been the main driver of the urban economy, accounting for more than half (49-54 percent) the share of the GDP, much higher than that of the industrial sector (about 32-32 percent). But the performance of these urban-based sectors in the Philippines do not compare positively with the impressive gains made by its neighbors in the ASEAN region.

The urban economy is also dominated by small and medium enterprises (SME), comprising about 97 percent of the total registered firms nationwide and employ about 70 percent of the nation's labour force (DTI 2008). Although they constitute the majority, they suffer from low credit financing and utilization and low innovations (NUDF 2009). In short, their capacity to generate employment and livelihood are not fully harnessed.

But government support for urban economies during the past decade has considerably improved. This can be seen in the infrastructural improvements (e.g., interconnectivity of roads, bridges, flyovers, rapid transit system, etc.) and services such as availability of power, water, and telecommunications in most of the regions. But the most dramatic improvements have been in the top three urbanized regions of NCR, Southern Tagalog, and Central Luzon. In addition, these improvements are also concentrated in the identified economic or growth corridors -- stretches of provinces, municipalities and/or cities with strong potential for complementarity and given promotional priority by the government as tourist and agri-industrial hubs. Some of these hubs are the Calabarzon near Metro Manila, the Cagayan de Oro-Iligan (CIC) corridor in the Northern Mindanao region, and the South Cotabato-Davao-Zamboanga Crescent Corridor in the Southern Mindanao region (Gonzalez et al 2004).

While the urbanization rates of Metro Manila have been declining, its industrial and commercial primacy over other urban areas has remained. One has to bear in mind, however, that the industrial and commercial sectors account for a small portion of the overall economic growth. Meanwhile, the increases in tertiary functions have remained mostly in Metro Manila and the highly urbanized areas of the Southern Tagalog region (or Calabarzon) and Central Luzon.

Global forces constitute a major component in the transformation of the above urban economies through the following factors: (1) foreign direct investments or FDIs, (2) exports, both manufactured and non-manufactured (3) remittances from overseas Filipino workers (OFWs), (4) importation/consumption of ideas, goods, and services. As shown in the appendix table, foreign direct investments are highly concentrated in two areas of the country, namely, Metro Manila and the Southern Tagalog Region/Calabarzon. But a more important factor are the remittances from OFWs that has fueled the real estate and construction sector and the expansion of community and social services sector (Lopez 2005). In 2007, the remittances accounted for as high as 13 percent of the GDP. Distribution of remittances, however, seem to highlight urban-rural and regional inequalities because the regions consistently receiving the highest shares of remittances are also the top highly urbanized places: 1) Metro Manila or NCR, (2) Central Luzon, and (3) Southern Tagalog (Calabarzon). This remittance distribution pattern, however,

reinforces the pattern seen in the predominance of overseas migrants coming from these regions and other urbanized areas of the country.

FDIs and business process outsourcing services (BPOs) are major contributors to the urban primacy of NCR and surrounding regions because of their tendency to locate is operations in traditional urban areas (Lopez 2005). This tendency is due to the firms' taking advantage of the physical infrastructure available in urban areas like road networks, transportation, telecommunication facilities, among others (Pernia and Herrin 1987). And as noted earlier, these highly urbanized regions received the bulk of the investments in infastructure and services.

Because of the large impact of FDIs and other external investments on the distribution and growth of urban localities, both central and local governments devise incentives to capture it. This includes tax subsidies, availability of skilled human resources, and supportive physical and social infrastructure. This approach highlights the "competitiveness" of cities in urban development and reinforces urban-rural, and regional differentiation patterns in migration, population growth and economic productivity. This model is embedded in the competition and expansion of the major cities in the national capital region like Manila, Makati, Quezon City and the regional centers of Cebu, Davao, Bacolod, Cagayan de Oro, etc. which have been trying to attract foreign direct investments (FDIs) in business processes outsourcing (BPOs), tourism, and overseas remittances by offering their localities as retirement havens for expatriates and *balikbayans* (Filipino return migrants).

Table 7 shows that urban areas attract the largest share of FDIs. The share of FDIs accruing to urban areas rose from over Php 62 billion in 2001 to Php 155 billion in 2006, with some sharp declines in 2003 at Php 34 billion and Php 95 billion in 2005. The share of FDIs among urban economies peaked in 2004 at Php 175 billion. Supporting the primacy of Metro Manila, over 60 percent of FDI-driven enterprises are located in this metropolis (NUDF 2009). The remaining 40 percent is shared by the regional urban centres of Region IV, Region III, and Regon VI. Policy analysts would argue that the heavy orientation of the urban economies towards FDIs and exports make it vulnerable to external shocks. This weakness is also reinforced by the country's heavy reliance on investment and exports in two countries, namely the USA and Japan (NUDF 2009).

Compared to other countries in Asia, the level of FDI flows that the country receives is quite low (see Table 7 below). In 2007, countries like Indonesia, Vietnam, and Malaysia received more than twice the amount of FDIs received by the Philippines.

**Table 7. Foreign Direct Investments Inflows, Selected Countries, 2007**

| FDI Inflows, 2007 (\$Mil) |              |                             |
|---------------------------|--------------|-----------------------------|
| Country                   | FDI          | FDI as Multiple of Phil FDI |
| Singapore                 | 24,137       | 8.24                        |
| Thailand                  | 9,575        | 3.27                        |
| Malaysia                  | 8,403        | 2.87                        |
| Indonesia                 | 6,928        | 2.37                        |
| Vietnam                   | 6,739        | 2.30                        |
| <b>Philippines</b>        | <b>2,928</b> | <b>1.00</b>                 |
| China                     | 83,521       | 28.52                       |
| India                     | 22,950       | 7.84                        |

Source: UNCTAD 2008

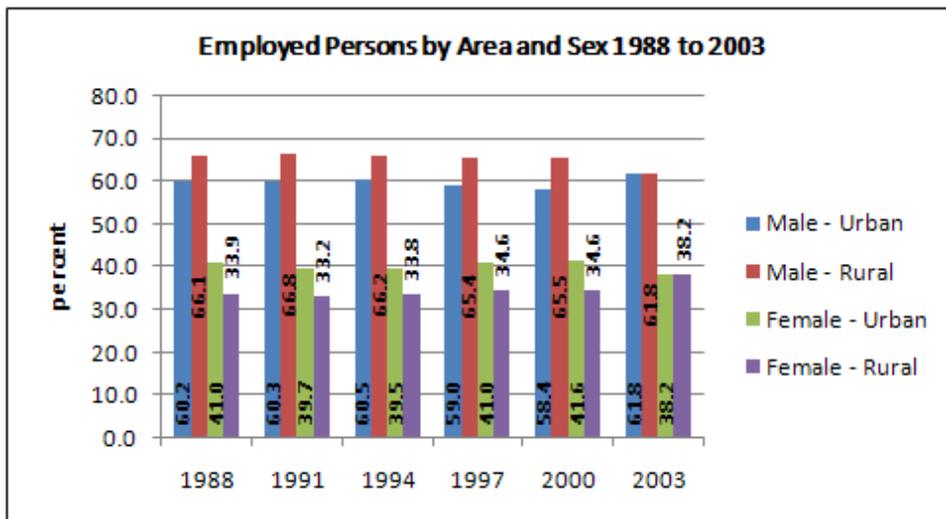
In like manner, compared to other advanced countries in the region, the industrial sector of the economy has not grown very much. Instead, the services sector, particularly information, communication and technology (ICT) had been growing rapidly. In 2001, it posted earnings of US\$24 million which rose to over US\$2.1 billion in 2005. Providing employment for over 200,000 employees in 2006, the firms in the ICT sector are mainly providing services in animation, business process outsourcing (BPOs), customer contact, medical transcription, and software development. Of these services, the growth of the customer contact centers stands out, from posting earnings of US\$ 173 million in 2001 to rising almost nine-fold to US\$ 1.6 billion in 2005 (Philippine Strategic Roadmap for the Information and Communication Sector 2006). The above growth and expansion, clearly demonstrate that unlike urban economies in advanced countries, that of the Philippines finds expansion and growth in services greatly linked with the labor needs of external markets. This pattern of expansion of urban services is possible because of the availability of cheap but skilled labor. Investors in information technology estimated that they saved up 60 percent on software development in the Philippines because of available skilled software developers and up to 80 percent because of college-educated, English proficient workers in contact centers (NUDF 2009).

**3.1. Employment, Unemployment, and Underemployment.** As indicated above the generation of urban employment is correlated with the growth of manufacturing, industry and services. Data shows that from 1988 to 2003, the rate of employment in the urban areas is lower than that of the rural areas. But rural areas seem to have offered more opportunities for males but quite the reverse for females. Significantly, urban areas generate higher employment rates for

the latter. In terms of unemployment rates, females generally fared better than their male counterparts. Over the past decade, females in the urban areas have had lower unemployment rates compared to the males. This is due to the large informal sector, emphasis on light-export oriented industries, and expansion of services which favor women.

Consistent with the trends in poverty incidence, the unemployment rates for the whole country have also declined. Overall rates of unemployment in the Philippines declined during the period 1994-1996, but started to rise again following the economic crisis in 1997 (Figure 10). Although the figures have not been definitive, it is clear that the current global financial crisis will increase both unemployment and underemployment levels. These figures also reflect the relatively poor labor absorptive capacity of the country's urban system and the generally low skills of rural-urban migrants, making the levels of unemployment consistently higher in urban areas than in rural areas.

Figure 10. Employed Persons by Area and Sex 1988 - 2003

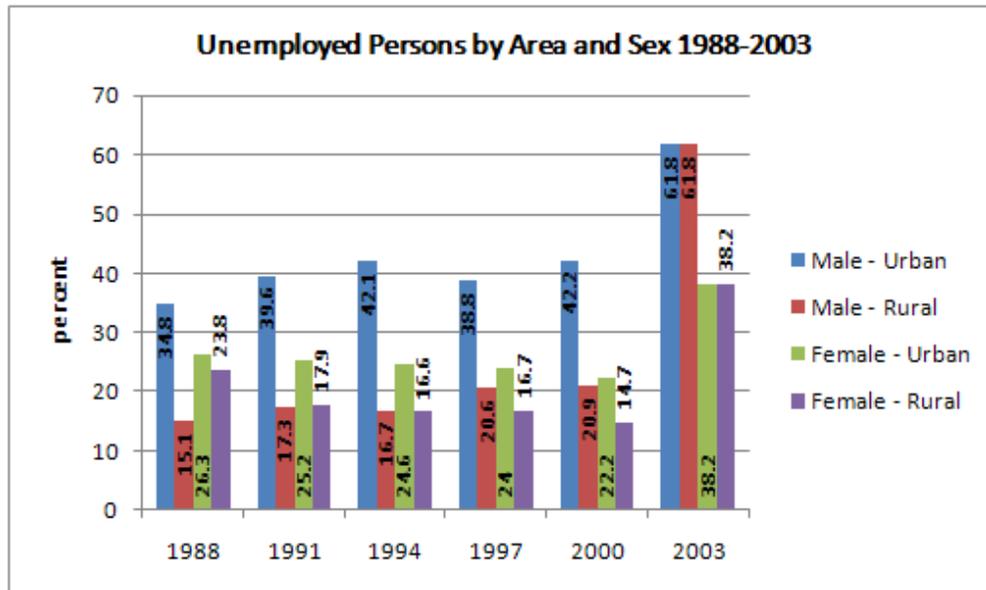


Source: NSCB, Philippine Statistical Yearbook 1995, 1997 and 2008

Notes:

1. Data were taken from the October round of the Labor Force Survey (LFS) using past week as reference period.
2. Urban and rural classification was no longer applied starting the July 2003 round of the LFS.
3. Details may not add up to totals due to rounding.

Figure 11. Unemployed Persons by Area and Sex 1988-2003



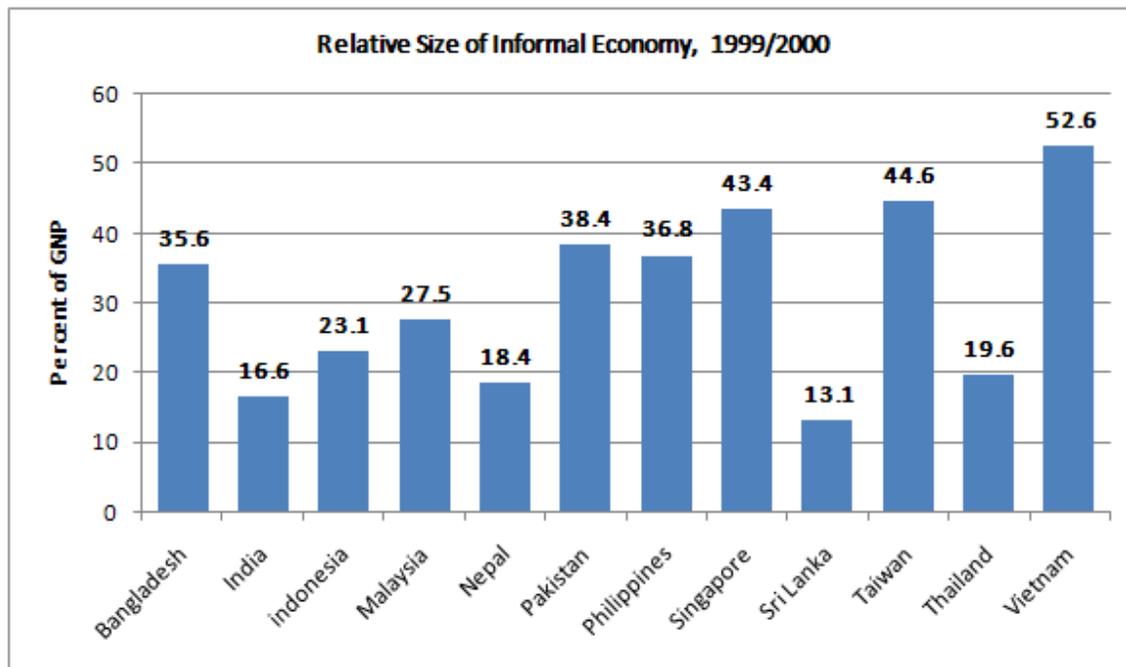
Source: NSCB, Philippine Statistical Yearbook 1995, 1997 and 2008  
Philippine Yearbook, 2002

Notes:

1. Data were taken from the October round of the Labor Force Survey (LFS) using past week as reference period.
2. Urban and rural classification was no longer applied starting the July 2003 round of the LFS.
3. Details may not add up to totals due to rounding.

**Size of the Informal Economy.** As in other Asian cities, Metro Manila and other cities contain a large informal economy. While statistics are very hard to obtain, ADB (2008) estimates that the informal economies of cities contribute, on the average, over 40 percent to the gross national product (GNP). In the Philippines, the informal economy accounts for 37 percent of the GNP. While it provides low wages, irregular and insecure working conditions, the informal sector generates livelihood opportunities and services for many urban poor communities. But many government agencies are not supportive of this sector. In particular, the Metro Manila Development Authority in the last few years has been seen to be quite restrictive and punitive of informal economic activities in city streets such as vending/selling, begging, pedi-cab/tricycle driving, etc. There has been a discernible increase in demolitions of vending structures and areas and apprehensions of vendors, beggars, and drivers. It has also demolished informal settlements purportedly to protect the residents from environmental risks such as flooding and landslides. Non-governmental organizations and people’s organizations (NGOs/POs) have mobized protests and demonstrations to prevent these demolitions but it has not stopped MMDA from continually carrying these “clearing operations.”

Figure 12 Relative Size of Informal Economy, 1999-2000



Source: ADB 2003.

#### 4. Urban Growth, Poverty, and Social Inequality

As in other third world cities, Philippine cities today suffer from a number of problems accompanying urbanization and the development of agglomeration economies. These include congestion, shortage of housing, inadequate basic services like potable water supply, health, waste collection and management, etc. These problems are also compounded by water and air pollution, the increasing need for disease control and health services (e.g., destruction of urban habitats and rising incidence of dengue, HIV and STDs, pollution and rise of pulmonary diseases, etc.), fire and police protection, and the proliferation of slum and squatter settlements (Manasan 2004:30).

In terms of spatial expansion and urban growth, the above problems are also reflected in the pattern of urban settlements. In most cities, but most pronounced in Metro Manila, slum and squatter communities and other smaller informal settlements with no security of tenure and inadequate access to basic services side by side with exclusive, fully-serviced gated communities. Architects and planners like Alcazaren et al (2005) coined the term “*gilidges*” (Pilipino for side or *gilid*, i.e., beside villages, the popular term for exclusive, gated communities) to summarize this kind of residential development in Philippine cities, which is partly a function of the absence of well-defined comprehensive land use plans (CLUPs) and the weakness of government agencies.

**Poverty Incidence Across Regions and Income Groups.** Differential levels of poverty over time and across areas/groups reflect the quality of life and standards of living enjoyed by

urban/rural citizens as well as how national development strategies have shaped urban-rural distribution of social and economic goods. Table 8 below show that the incidence of poverty in the Philippines seemed to have declined from 1985 to 2006, but the number of people below the poverty line has been increasing in absolute numbers. In 1985, urban areas accounted for 34 percent of poverty incidence while rural areas had 51 percent. In 2000, this has been reduced to 20 percent and 47 percent, respectively. Thus, the urban areas' poverty incidence declined by 14 percentage points but that of the rural area only by 4 percentage points. While the overall gains in poverty reduction have been quite modest from 1985 to 2006, that of urban areas is significantly higher. Urban residents, thus, fare better than their rural counterparts because their poverty incidence is much lower than in the rural areas. This underscores the social disparities between rural and urban settlements, and highlighting income poverty as a rural phenomenon (Balisacan 2001). These also reflect the level of social inequality between urban and rural populations as well as the level of inequality within each of these sectors.

Table 8. Poverty Incidence in the Philippines

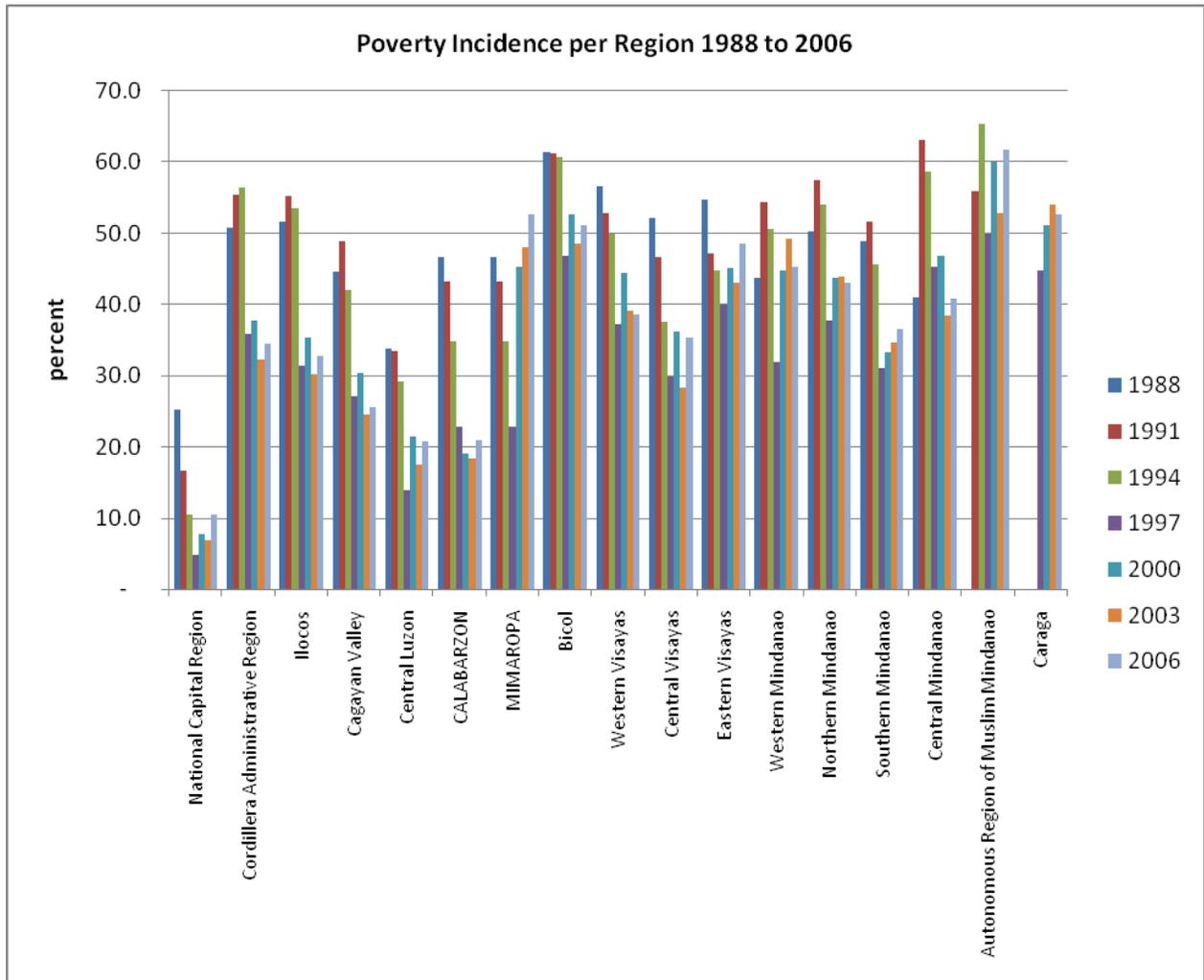
| <b>Year</b> | <b>Philippines</b> | <b>Urban</b> | <b>Rural</b> |
|-------------|--------------------|--------------|--------------|
| <b>1985</b> | 44.2               | 33.6         | 50.7         |
| <b>1988</b> | 40.2               | 30.1         | 46.3         |
| <b>1991</b> | 39.9               | 31.1         | 48.6         |
| <b>1994</b> | 35.5               | 24.0         | 47.0         |
| <b>1997</b> | 31.8               | 17.9         | 44.4         |
| <b>2000</b> | 33.7               | 19.9         | 46.9         |

Source: ADB, Poverty in the Philippines: Income, Assets and Access (2005)

Comparing poverty levels across regions of the country, those in the more urbanized regions definitely are better-off than those in less urbanized areas. Thus, poverty levels in highly urbanized regions decelerated much faster during the past 15 years while those in predominantly rural regions remained at high levels (i.e., Ilocos, Cagayan Valley, Bicol, Western and Eastern Visayas regions and in most regions of Mindanao).

Figure 13 below show that Metro Manila and the surrounding regions like Central Luzon and Southern Tagalog have much lower poverty levels. In 1985, while the whole country had a poverty incidence of 44 percent, Metro Manila only had 23 percent and Central Luzon had 28 percent. In 2000, the three regions with the lowest incidence of poverty were Metro Manila (9 percent), Central Luzon (19 percent) and southern Tagalog (25 percent). Meanwhile, the highest incidence of poverty came from regions with lower levels of urbanization such as the Autonomous Region of Muslim Mindanao (66 percent), Bicol (55 percent) and Central Mindanao (51 percent). In fact in the Autonomous Region of Muslim Mindanao (ARMM), poverty incidence increased by 17 percentage points during the last decade. This in part, could be accounted for by the continuing low-intensity conflict (LIC) that increased during this period.

Figure 13 Poverty Incidence per Region 1988-2006



Source: Philippine Statistical Yearbook, 2000  
 NSCB,  
[http://www.nscb.gov.ph/poverty/2006\\_05mar08/table\\_2.asp](http://www.nscb.gov.ph/poverty/2006_05mar08/table_2.asp)  
<http://www.nscb.gov.ph/poverty/2000/povertyprov.asp>

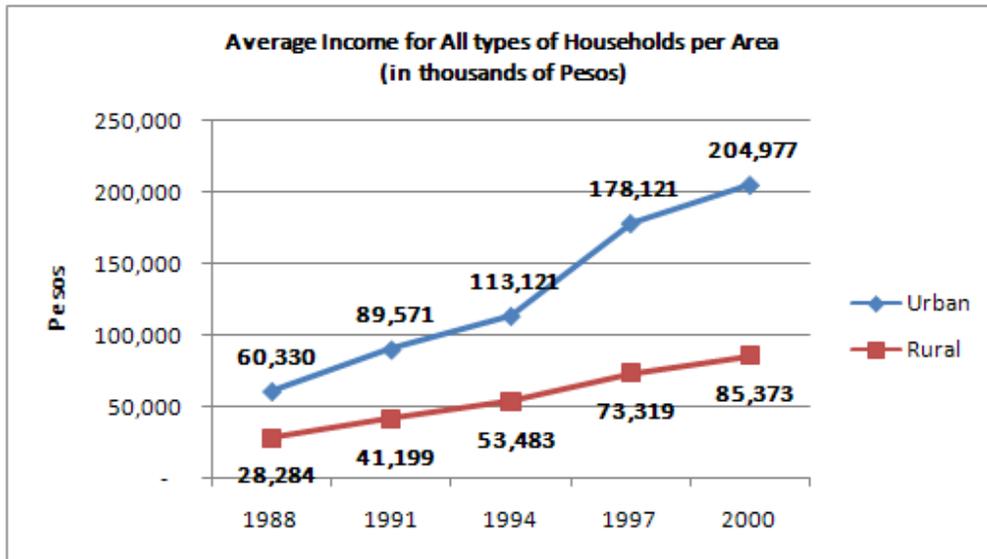
Note:

- The Autonomous Region in Muslim Mindanao (ARMM) was formally recognized as a separate region in 1990.
- Region 13 or Caraga was formally recognized as a separate region in 1995.

The better off conditions of urban households can also be seen in their level of incomes. In general, urban households are 2.3 higher than their rural counterparts (Webster, Corpuz and Pablo 2003). This reinforces the observation that poverty levels of Metro Manila over the 15-year period has decelerated faster than any other region in the country. This pattern of poverty reduction is followed by the two highly urbanized regions around Manila, Central Luzon and Southern Tagalog.

The level of social inequality in the Philippine is reflected in the Gini concentration ratios from 1985 to 2006. In 1988, two years after the 1986 People Power Revolution, the Gini Concentration Ratio was 0.44 and rose to 0.48 in 1997 and went down a bit to 0.4 in 2006.

Figure 14. Average Income for All Types of Households per Area (in thousands of pesos)



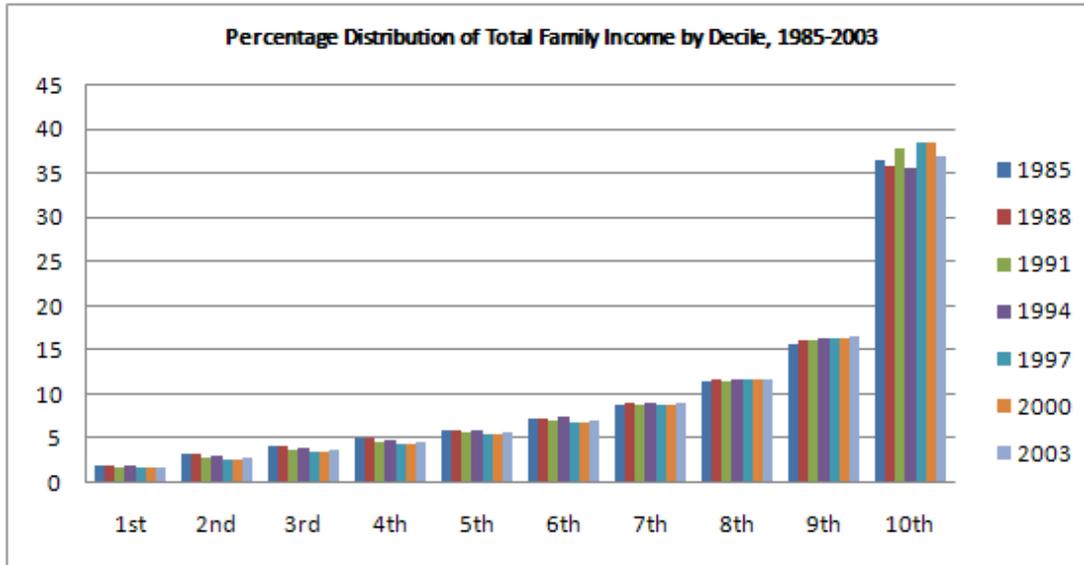
Source: Philippine Yearbook 2002

Overall, there is an increasing inequality between urban and rural areas and between more urbanized and less urbanized regions. With the exception of Metro Manila, where poverty rates has largely fallen, the rest of the regions experience increasing social inequality as reflected in the increases of their gini coefficient ratios between 1988 and 2003 (see Appendix Table\_\_).

Inequality among different income groups has not improved at all. The share of the poorest income quintile in 1985 was 4.8 percent, in 2000 4.7 percent but the share of richest income quintile increased from 51.2 percent in 1985 to 54.8 percent in 2000 (NSO 2003). The Gini coefficient did not change very much from 0.47 in 1985 to 0.51 in 2000.

The prevailing social inequality can also be seen in the share and accrual of total incomes of the poorest quintile and richest quintile of the population. As shown, in Figure 15, from 1985 to 2003, the share of total incomes of the poorest quintile declined from 5.2 percent in 1985 to 4.7 in 2003. Meanwhile, the share of the richest quintile increased from 51.8 percent in 1985 to 53.4 percent in 2003. The increasing inequality can also be seen in Figure 15 where the share of incomes of the upper income deciles is getting bigger compared to those in the lower income deciles. From the seventh to the tenth income deciles, their incomes have risen while those in the sixth income decile and below have consistently gone down from 1985 to 2003.

**Figure 15 Percentage Distribution of Total Family Income by Decile, 1985-2003**



The above patterns of poverty and inequality are also supported by the self-rated poverty indicators gathered by the Social Weather Stations between 1986 to 2008, under different political administrations (see Appendix Figure\_\_). The percent of households who categorized themselves as poor were quite high during the Marcos dictatorship (80 percent for rural households and 60 percent for urban households) but went down (54 percent for rural households and 48 percent for urban households) right after the 1986 People Power Revolution and went up again towards the end of the Aquino administration. The figures remained stable (between 45 percent to 65 percent) during the Ramos and Estrada administrations. In 2008, 56 percent of urban households compared to 64 percent of rural households categorized themselves as poor.

The above urban-rural differential in poverty incidence is also reinforced by the results of the survey on “self-rated” poverty by the Social Weather Station (see Appendix Figure\_\_). A greater proportion of respondents in rural areas (64 percent) consider themselves “poor” when compared with urban respondents (55 percent). In like manner, a higher percentage of respondents in predominantly rural Mindanao (68 percent) consider themselves poor when compared with their counterparts in Visayas (66 percent), Luzon (53 percent) and the NCR(51 percent).

In terms of poverty reduction efforts, the Philippines does not compare favorably with those of other countries in Asia. Using the US\$1 a day threshold, the data presented in Table 9 below shows that the number and proportion of people in poverty declined rather slowly for the Philippines over a 20-year period from 1975 to 1995. But other countries in Asia like China, Thailand, Malaysia and Vietnam have reduced the magnitude and percentage of people in poverty at a much faster rate compared to the Philippines.

Table 9 Poverty in Selected Asian Countries, Summary Statistics, 1975-95

|             | People in poverty<br>(million) |                   |       | Head-count Index<br>(percent) |                   |      | Poverty Gap<br>(percent) |                   |      |
|-------------|--------------------------------|-------------------|-------|-------------------------------|-------------------|------|--------------------------|-------------------|------|
|             | 75                             | 85                | 95    | 75                            | 85                | 95   | 75                       | 85                | 95   |
| China       | 568.9 <sup>a</sup>             | 398.3             | 269.3 | 59.5 <sup>a</sup>             | 37.9              | 22.2 | n.a.                     | 10.9              | 7.0  |
| Indonesia   | 87.2                           | 52.8              | 21.9  | 64.3                          | 32.2              | 11.4 | 23.7                     | 8.5               | 1.7  |
| Malaysia    | 2.1                            | 1.7               | 0.9   | 17.4                          | 10.8              | 4.3  | 5.4                      | 2.5               | <1.0 |
| Philippines | 15.4                           | 17.7              | 17.6  | 35.7                          | 32.4              | 25.5 | 10.6                     | 9.2               | 6.5  |
| Thailand    | 3.4                            | 5.4               | <0.5  | 8.1                           | 10.0              | <1.0 | 1.2                      | 1.5               | <1.0 |
| Vietnam     | n.a.                           | 44.3 <sup>b</sup> | 31.3  | n.a.                          | 74.0 <sup>b</sup> | 42.2 | n.a.                     | 28.0 <sup>b</sup> | 11.9 |

n.a.: not available

Notes: All numbers in this table are based on the international poverty line of US\$1 per person per day at 1985 prices

a. Data relates to 1978 and applies to rural China only.

b. The figures refer to 1984. "Vietnam Household Welfare in Vietnam's Transition" in Macroeconomic Reform and Poverty Reduction, edited by D. Dollar, J. Litback and P. Glewwe. World Bank Regional and Sectoral Study, 1988

Source: Everyone's Miracle? World Bank, 1997.

Because of the overall positive performance of cities in poverty reduction, urban planners and city officials have highlighted the role of urban areas in improving the quality of life, both for urban and rural populations. It should be noted, however, that following the Asian Crisis in 1997, the overall poverty incidence increased from 32 to 34 percent. It is likely, then, that the current global financial crisis will have a similar negative impact on poverty reduction efforts. Poverty reduction in the Philippines has generally been slow because of low economic growth and high social inequality (WB 2009).

**4.1. Health, Education, and Literacy.** Access to health services and the health status of Filipinos are highly correlated with levels of urbanization. In 1990, infant mortality rates (IMR) were lowest in Metro Manila (46 percent) and in the adjacent regions, Central Luzon (45 percent) and while the highest levels were found in the marginal regions of Eastern Visayas (76 percent), the Autonomous Region of Muslim Mindanao or ARMM (74 percent), and Cordillera Autonomous Region or CAR (63 percent). Surprisingly, more than a decade later, CAR registered the sharpest decline in IMR due to increases in reproductive health services both from the public and NGO/CBO sectors (PCPD Annual Report 2009). But in other regions, the pattern show that those in Metro Manila (24 percent), Central Luzon (25 percent) and Southern Tagalog (25 percent) registered the lowest IMR. These patterns also correlate highly with the incidence of poverty found in these regions.

In terms of education and functional literacy, urban areas always have higher performance rates. But women always outperform the males in terms of education levels and functional literacy rates (see Appendix Tables\_\_).

**4.2. Housing: Largely an Urban Problem.** Housing is largely a problem for the EMRs and highly highly urbanized regions where a large part of the informal sector do not have adequate housing, i.e., with secure tenure and access to basic services, livelihood and employment opportunities. These settlements also have inadequate sewage and sanitation facilities and suffer from overcrowding and congestion (Racelis 2009, Karaos 2006). Their housing made of light materials make them prone to fire and other kinds of environmental hazards. Most of the fires in these neighborhoods have been caused by substandard electric wiring and overloading or through the use of candles and gas lamps (Porio 2009).

In the NCR and highly urbanized areas, the magnitude of housing need (backlog housing and new households) is quite staggering. Predictably, the greatest need for housing is in Metro Manila, with a housing deficit of almost half a million units followed by Southern Tagalog. The Housing and Urban Development Coordinating Council (HUDCC) estimates that by 2010, about 3.7 million housing units will be needed. After the NCR and surrounding regions, the housing deficits of Region IV (828,348 units), and Region III (461, 368 units) are highest among the regions. These housing deficits are consistent with the estimated number (30 percent) of the urban population residing in slum and squatter or informal settlements.

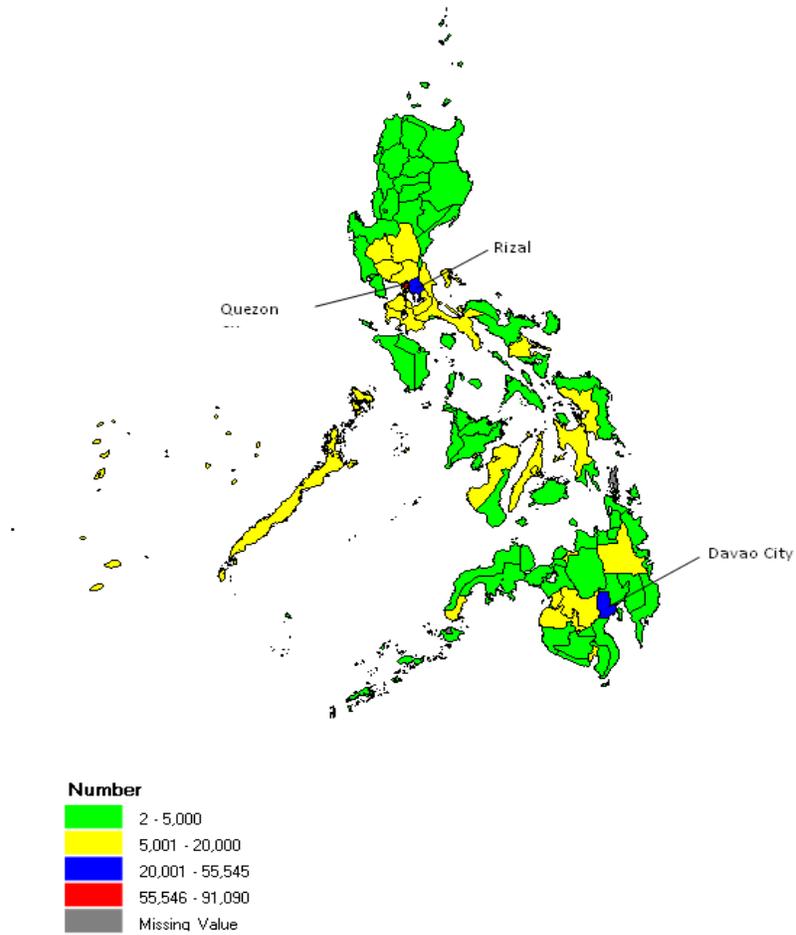
The National Shelter Program (NSP) of the Philippine government provides for (1) direct housing provision, (2) indirect housing provision, (3) resettlement housing, and (4) slum upgrading. Direct housing provision is made through the provision of financial assistance to target beneficiaries for lot purchase and construction of new houses. Indirect housing, on the other hand, is handled through the provision of loans to private developers and landowners. In the period 2006-2010, NSP calls for an average yearly direct provision of 181,540 socialized shelter units and 64,333 low-cost housing units. The program has an estimated budget of Php185,133 million to be largely financed by government.

In Metro Manila alone, Ragrario (2004) estimated that about 4 in every 10 households lived in these settlements. Housing analysts estimate that to fulfill these demands would require about 3,000 hectares of land. These estimates assume single-detached models, most favored by the urban poor because of the cost, their on-the-ground service entities, and their desire to rear animals to supplement their incomes. But highly urbanized areas suffer from shortage of affordable lands which, in part, explains why most informal settlements are located in lands unsuitable for housing because these are largely un-serviced areas, danger zones, and often flooded areas or prone to landslides.

Figure 16 below show the location of the informal settlers and their housing in the different cities and urban areas. The cities/provinces with most number of informal settler households are in Quezon City (91,090), Rizal Province (20,237), and Davao City (20,072).

Figure 16. Estimated Number of Informal Settlers in the Philippines: 2007 (Unit in Household)

Chart 1. Estimated Number of Informal Settlers in the Philippines: 2007  
(Unit in Household)

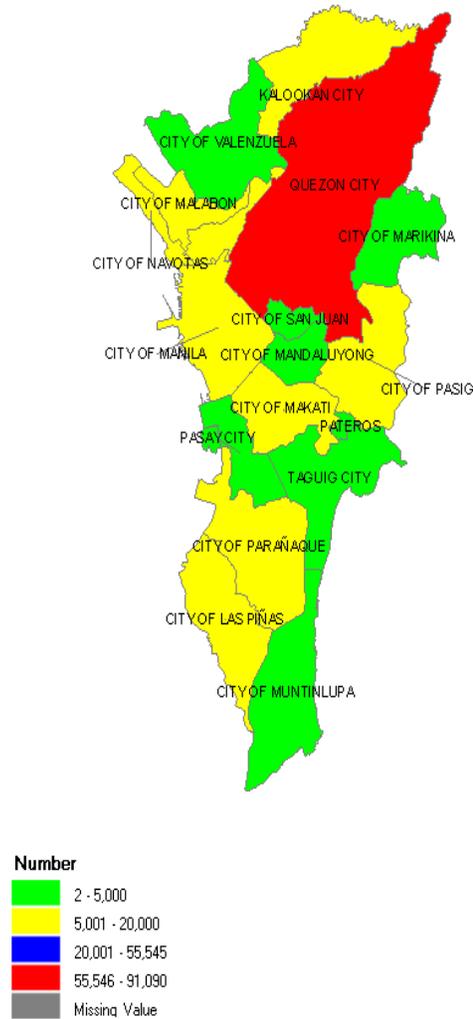


Source of basic data : 2000 Census of Population and Housing and 2007 Population Census

Cities/provinces with most number of informal settler households are QC (91,090), Rizal Province (20,237), and Davao City (20,072).

Figure 17. Estimated Number of Informal Settlers in NCR: 2007 (Unit in Household)

Chart 2. Estimated Number of Informal Settlers in NCR: 2007  
(Unit in Household)



Source of basic data : 2000 Census of Population and Housing and 2007 Population Census

According to HUDCC, the total informal settlers in the country number 550,771 households, with 36 percent or 199,398 households found in the NCR. HUDCC further breaks the urban households 1) homeless, 2) dilapidated or condemned, 3) informal settlers, 4) marginal housing, and 5) acceptable housing. Almost 800, 000 households have unacceptable housing. Comparing these numbers to the surveys conducted by NGOs (e.g., Urban Poor Associates, CO-Multiversity, PHILSSA, ICSI) indicate that the housing problem and its consequences remains largely underestimated by government agencies.

Table 10. Total Number of Households Classified by Selected Housing Indicators by Region:  
July 1, 2000

| Total Number of Households |            |          |                           |                      |                     |                |
|----------------------------|------------|----------|---------------------------|----------------------|---------------------|----------------|
| Region                     | Total      | Homeless | Dilapidated/<br>Condemned | Informal<br>Settlers | Marginal<br>Housing | Acceptable HUs |
| PHILIPPINES                | 15,371,255 | 10,503   | 118,717                   | 477,066              | 149,764             | 14,615,205     |
| NCR                        | 2,146,424  | 7,054    | 19,352                    | 172,312              | 22,838              | 1,924,868      |
| CAR                        | 265,513    | 85       | 756                       | 2,158                | 1,218               | 261,296        |
| REGION I                   | 836,786    | 163      | 3,586                     | 5,630                | 6,672               | 820,735        |
| REGION 2                   | 557,983    | 166      | 3,802                     | 5,620                | 4,626               | 543,769        |
| REGION 3                   | 1,642,326  | 524      | 8,526                     | 33,182               | 17,520              | 1,582,574      |
| REGION 4                   | 2,428,241  | 1,038    | 12,639                    | 64,510               | 33,103              | 2,316,951      |
| REGION 5                   | 899,463    | 240      | 11,422                    | 18,298               | 13,713              | 855,790        |
| REGION 6                   | 1,219,437  | 110      | 12,417                    | 32,271               | 9,706               | 1,164,933      |
| REGION 7                   | 1,140,908  | 317      | 9,096                     | 27,239               | 11,950              | 1,092,306      |
| REGION 8                   | 719,574    | 123      | 7,611                     | 14,891               | 6,481               | 690,468        |
| REGION 9                   | 599,584    | 91       | 5,775                     | 10,716               | 2,426               | 580,576        |
| REGION 10                  | 545,485    | 145      | 4,436                     | 12,936               | 4,815               | 523,153        |
| REGION 11                  | 1,072,914  | 178      | 8,575                     | 38,236               | 6,806               | 1,019,119      |
| REGION 12                  | 505,031    | 110      | 4,219                     | 13,368               | 3,420               | 483,914        |
| CARAGA                     | 395,840    | 102      | 3,332                     | 17,485               | 3,364               | 371,557        |
| ARMM                       | 395,746    | 58       | 3,173                     | 8,213                | 1,106               | 383,196        |

Source: HUDCC

The backlog in housing have been growing over the years because of the growing urban population, increasing number of poor people, and the failure of government agencies to provide strategically housing and services. Partly, this can be seen in the low delivery of shelter services by the different housing agencies between 1996 and 2005. This low performance delivery is a result of shortage of financing, long processing of housing loans, the inability of the urban poor to fulfill the documentary and financing requirements (Herrle and Porio, 1999).

The low performance rate of government housing programs can be also attributed to its poor design which does not effectively target the poor. Llanto (1998) found that most social housing programs administered by the National Housing Authority(NHA), Home Development Mortgage Fund (HDMF) or Pag-ibig, National Home Mortgage and Financing Corporation and by the Home Guaranty Corporation (HGC) have very inefficient targeting records and end up heavily subsidizing those in the non-poor income strata.

With the rapid growth in population, the demand for housing continues to rise. From 2001-2004, housing need was estimated at 3.6 million units. Between 2005 and 2010, potential demand is projected to reach 3.76 million units, consisting of: 1) a housing backlog of 0.98 million units, 2) substandard housing of 0.19 million units, and 3) housing units for new households of 2.58 million. Nearly 60 percent of the housing backlog consists of replacement housing and housing for informal settlers while 39 percent represents doubled up housing. In 2001-2004, actual housing provision was just about one-fifth of the total housing need, resulting in a huge unmet demand invariably from the poor and the informal sector.

The worsening situation in the social housing sector is quite evident in Metro Manila where about 43 percent of its more than ten million inhabitants live in communities with substandard housing. In 2000, there were 726,908 informal settler families scattered all over the metropolis. Of this number, 43 percent have occupied government lands; 15 percent have established residence on private properties; and 15 percent live in danger zones such as waterways, river banks and railroad tracks. Moreover, another 13 percent have settled in areas that were being developed for government infrastructure projects while another 13 percent live in the Areas for Priority Development (APDs).

An assessment of the existing institutional framework for the housing sector done by the Asian Development Bank or ADB (2006) highlighted some of the weaknesses affecting the delivery of shelter services. Some of the most notable are: (1) the lack of sound land management policies and weak land management practices, (2) lack of clear policy on control of growth of informal settlements, (3) weak institutional capacity of the LGUs for urban renewal and socialized housing delivery, (4) weak and fragmented institutional arrangements, (5) inconsistent housing finance policies that promote market-based mechanisms while providing interest rate subsidies, (6) bias towards homeownership, and (7) lack of incentives for private sector participation in the sector.

But compared to the 1970s and 1980s, access of the urban poor to housing and basic services, to a certain extent, has improved because of the urban asset reforms started after the 1986 People Power Revolution. These reforms include the Presidential Commission for the Urban Poor (PCUP) and the social housing program for the poor through the community Mortgage Program (CMP), both promulgated in 1989 (Karaos 1997; Porio, 1997, 1999, 2004; Racelis 2009). The decentralization and democratization of urban governance in the 1990s have also contributed largely to the gains made in the urban poor sector. This shall be discussed more fully in a later section on governance of cities.

**4.3. Water supply, services, and sanitation.** In general, urban residents have better access to basic services such as water supply, electricity, health and sanitation services. But those in the informal settlements, however, do not have adequate levels of access to these services. But compared to those in the rural areas, the former have better access to basic services.

The NSO national survey of water supply shows that less than a third of the population have their own piped water to their households while almost half share their water sources with their neighbors through a community water system, tubed/piped well, and/or deep well. The rest draw their water for cooking and drinking from dug wells, springs, river, lake, rain water or from water peddlers.

The figures from the NCR show that more than half have access to piped water in their households. The rest share household faucets, community faucets, or community wells. Most likely, these households are located in informal settlements without secure tenure. In Metro Manila and most of the cities in the country, to obtain water or electricity connections to the household, the household head must present evidence of tenure such as title, rental contract, or permission by the landowner. Failing to obtain these papers, most urban poor households resort

to illegal or informal connections to those with legal connections (usually the better-off households) at highly exorbitant rates.

**4.4. Sanitation, Sewage and Solid Waste management.** Sanitation levels in communities are indicated by how they dispose and manage their wastes and their access to disposal facilities. The 1990-2000 NSO survey (henceforth NSO survey) of households reported several indicators of environmental sanitation and services such as sources of water for drinking and cooking, types of household toilets used, manner of garbage disposal, etc. The survey tables available did not classify households according to rural or urban residence.

In terms of garbage disposal, the NSO reported that in 1990, slightly more than half (55 percent) of the households surveyed dispose their garbage by burning. In 2000, this number has been reduced to 45 percent. Meanwhile, about 15 percent said their garbage were collected by garbage trucks in 1990, which slightly doubled (33 percent) in 2000. The rest disposed of their garbage by dumping in a pit (10 percent), composting (6 percent), burying and feeding to animals (6 percent).

Solid waste or *basura* has emerged as one of the most pressing environmental problems today. Rapid urban growth of population and rising consumption practices has resulted in generation of tons of wastes in the metropolis that are inefficiently collected and processed. Meanwhile, treatment and disposal facilities are facing closure for failing to meet proper building standards, management and increasing opposition of the public. Up to a few years ago in Metro Manila and other cities, it was a common sight to see uncollected garbage being piled up or burned. Meantime, health costs pile up because of improper handling and disposal of household, hospital, and industrial wastes.

Figure 18 belows show the national figures regarding the volume and kinds of solid waste generated. It also shows that the rate of waste re-cycling/re-use is very low at 12 percent. More significantly the budget allocation for solid waste management is quite low, from 1 percent to 12 percent.

Sewage and drainage systems in most cities in the Philippines have not really been paid much attention to both by government and the private sector. The privatization of the Metropolitan Waterworks and Sewerage System (MWSS) has, to some extent, led to the modernization of the system, mostly installed in colonial and post-war eras. But these efforts have not quite penetrated most of the urban poor communities which were and are not part of waterworks distribution network system. The effects of these problems become more intensified with the increased flooding caused by climate change and the inappropriate infrastructure designs (i.e., climate-proofed).

Figure 18 Solid Waste Management in the Philippines

| <b>Solid Waste Management in the Philippines<br/>- At a Glance, 2001 -</b>      |                            |
|---|----------------------------|
| <i>Indicator</i>  | <i>Value</i>               |
| Solid waste generated by households (tons/year)                                 | 10 million                 |
| Toxic and hazardous waste generated by industrial/commercial sector (tons/year) | 2.4 million                |
| Hazardous and infectious waste generated by hospitals (tons/year)               | 6,750                      |
| Share of municipal waste generated that is collected                            | Urban – 70%<br>Rural – 40% |
| Waste recycling and re-use as a percent of total waste generated (Metro Manila) | 12%                        |
| Recycled material sold as a percentage of total waste generated (Metro Manila)  | 5%                         |
| No. of proper solid waste disposal sites  |                            |
| • Landfills   | 1                          |
| • Closed landfills  | 2                          |
| • Controlled dumps  | 17                         |
| No. of hospital waste incinerators  | 43                         |
| No. of hazardous waste treatment facilities                                     | 28                         |
| Share of municipal solid waste disposed in landfills and controlled dumps       | 2%                         |
| Share of hospitals with access to incinerators in Metro Manila                  | 50%                        |
| Share of hazardous waste treated or recycled                                    | 5%                         |
| Per capita allocation in LGUs (range PhP)                                       | 12 - 250                   |
| Share of solid waste management in LGU budget                                   | 1% - 12%                   |

Source: Philippines Environment Monitor 2001, World Bank (2001).

**Box 3 Proper Solid Waste Management and Moving Out of Poverty in Barangay Luz, Cebu City**  
**Proper Solid Waste Management and Moving Out of Poverty in Barangay Luz, Cebu City**

Located next to the Ayala Business Park, Barangay Luz (named after the wife of President Magsaysay) in Cebu City is home to 15, 545 urban poor families who live in 19.9 hectares. They are mostly migrants from the provinces and relocatees displaced by fire, eviction, and demolition in other parts of the city from the 1960s to the 1980s. The land was mostly owned by the city and provincial governments of Cebu.

In 1990, the provincial government sold some parts of the land to the Ayala Group of Companies resulting in the displacement of over 100 families. With the help of NGOs, the community-based organizations (CBOs) mobilized the community residents to demand assistance from national and local governments in securing tenure to their home lots and upgrading of the community's roads and basic services. Over the years, with consistent community organizing and mobilization of local resources, most of the residents today are on the way to finishing the mortgage payments of their home lots. Some have improved their homes and expanded it to become rental units.

Meanwhile, the Ayala Business Park, has become one of the two largest commercial shopping areas of the city and the region generating hundreds of tons of garbage every day. With the enactment of Republic Act 9003 in 2003 that mandated local governments to institutionalize waste management and

the closure of dumpsites in the country, the Barangay Council of Luz created a solid waste management program (SWMP). Designed to improve the quality of life of the community through balanced environmental management of resources, the female barangay captain mobilized community-based NGOs/POs and in particular strengthened the Bo. Luz Homeowners Multi-Purpose Cooperative (BLHMPC) as the organization to manage the SWMCP . Taking advantage of opportunities nearby, the barangay council and BLHMPC entered an agreement with Ayala Business Park to collect and re-cycle the latter's waste products.

After 5 years, the urban poor community of Barrangay Luz and its SWMP has accomplished the following: 1) minimized 70 percent of its garbage that is dumped in the city's landfill, 2) provided livelihood to the residents, 3) provided better health services, 4) lessened the incidence of respiratory diseases, and 5) created a garbage-free environment in the community.

#### Box 4 Earning Certified Emission Reduction (CER) Credits in Payatas, Quezon City, Metro Manila

##### **Earning Certified Emission Reduction (CER) Credits in Payatas, Quezon City, Metro Manila**

Barangay Payatas is the site of the biggest garbage dumpsite in Metro Manila and home to 160,000 residents, most of whom are urban poor. Located in the second district of Quezon City in Metro Manila, it has a land area of 2,818 hectares of the city total land area of 16,112.58 hectares, making it one of the most densely populated urban poor areas in the country. Next to the community lies the La Mesa Dam and Reservoir, the main source of water supply for the whole metropolis.

In 2001, after torrential rains, close to 300 people died during a trashslide burying houses clustered at the bottom of the precarious, steep section of the cliff-like hill of garbage. Meanwhile because of the on-going garbage crisis in Metro Manila, the Congress of the Philippines issued The Ecological Solid Waste Management Act of 2001, mandating the closure of all open dumpsites in the country by 2006.

In response, the Quezon City Local Government Unit (LGU) started a pioneering, innovative program to ensure the continued safe operation of the dumpsite and its conversion into a controlled waste disposal facility. Through consultations and dialogues, it built partnerships with barangay officials, community-based non-government organizations (NGOs) and people's organizations (POs). It also tapped the expertise of government organizations like the Philippine National Oil Company, academic institutions like the University of the Philippines, MAPUA and the University of Singapore and private sector like the IPM Environmental Services, Inc. for the planning and implementation of the program. The following concerns of environmental health and safety of the community, livelihood needs of those dependent of the site, and compliance of RA 9003.

The conversion of the dumpsite into a controlled waste disposal facility started in 2004 with the following measures: 1) reshaping the slope of the garbage, 2) stabilization and greening, 3) drainage system improvement, 4) fortifying roadways and access to the site, 5) gas venting and recovery, 6) relocation of residents in danger zones, and 7) organization and relocation of scavengers. In partnership with NGOs, CBOs and POs like the Homeless People's Federation of the Philippines, the city government and private sector (IPM-ESI) organized the relocation of 1,000 families living along danger zones to nearby areas while providing them health-care, non-formal education, and livelihood opportunities.

In 2006, the city government implemented the final closure plan of the facility by starting the Quezon City Controlled Disposal Facility and Biogas Emission Reduction Project. In February 1, 2008, this was approved and registered as a Clean Development Mechanism (CDM) under the Kyoto Protocol by the United Nations Framework Convention on Climate Change last. An offshoot of the earlier "Gas to

Power Generation Project”, the project involves extraction, processing, flaring and conversion into electricity of the biogas emission at the disposal facility.

This program significantly improved the dumpsite’s operational efficiency while organizing dumpsite workers groups and supporting people’s livelihood needs and making it environmentally-friendly.

Source: Galing Pook Best Practices in Local Governance (2008).

## **5. Environment and Climate-Change Related Vulnerabilities of Urban Populations**

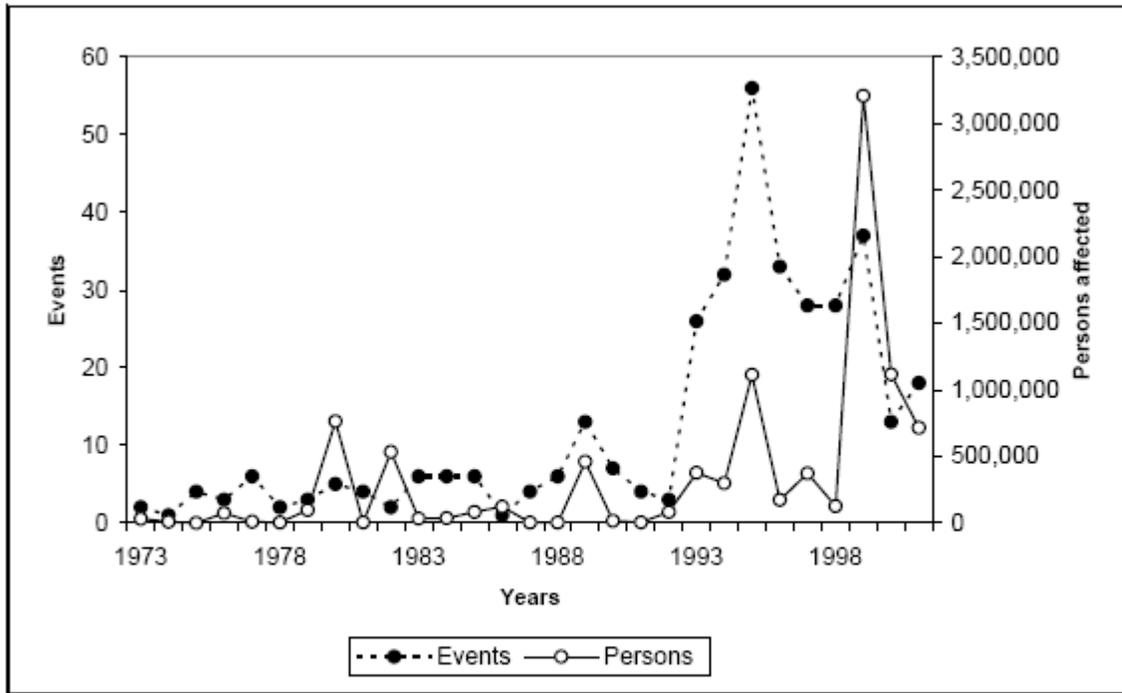
Population density, increasing poverty and inequality, and environmental problems (intensified by climate change) create new levels of vulnerabilities and risks (e.g., disasters caused by natural and man-made calamities, pandemics) for cities and their residents. The continued rise in population, increasing urban densities, combined with environmental hazards coming from the sea level rise (SLR), increasing number and intensity of typhoons and floods pose great challenges to the planning and organization of cities. More significantly, these ecological and social vulnerabilities are going to put more burden and risks to urban poor communities and other vulnerable populations. In particular, high population densities in coastal cities and flood plains combined with the effects of climate change create new and unprecedented risks, like Metro Manila and Metro Cebu. Thus, flooding has increased because of increase in sea level rise (SLR), and rising number/intensity of typhoons making Metro Manila residents very vulnerable, especially the urban poor communities residing in its major floodplains<sup>7</sup>, river systems and the coastal areas.

In Metro Manila alone, the number of barangays/people who suffered losses from floods and typhoons have increased greatly over the past 10 years (see Figure 19 below). The number of people affected by typhoons and floods sharply rose from less than a million in 1995 to almost 3.5 million in 2000. Thus, a large number of baragays in Metro Manila experience flooding (see Figure 19) below.

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<sup>7</sup> Floodplains of Metro Manila include KAMANAVA (Kaloocan, Malabon, Navotas and Valenzuela), Pasig-Marikina, and West Mangahan.

Figure 19. Number of People Affected by Floods

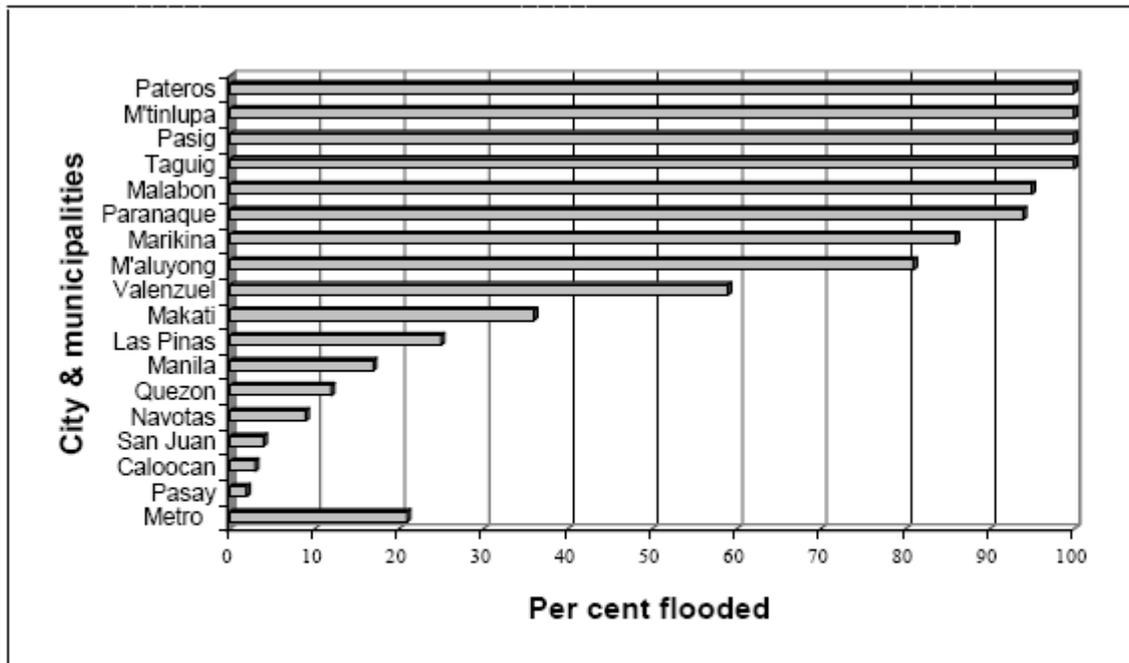


**Figure 1** Number of people affected by floods, 1973–2001

Source: Disaster Data 1973 to 1999 Floodings/Flashfloods (NDCC, 1999) and Disasters in the Philippines 2001 (CDRC, 2001a: 2, 10).

Source: Bankoff, G. (2003). Constructing Vulnerability: The Historical Natural and Social Generation of Flooding in Metropolitan Manila. *Disasters*. Vol. 27 (3). 95-109.

Figure 20 Per cent of Barangays in Metro Manila by city affected by flood in 2000



**Figure 2** Per cent of Barangays in Metro Manila by city affected by flood in 2000

Source: Hazard Prone Areas in Metro Manila (OCD, 2000a).

Source: Bankoff, G. (2003). Constructing Vulnerability: The Historical Natural and Social Generation of Flooding in Metropolitan Manila. *Disasters*. Vol. 27 (3). 95-109.

Degraded urban environments, often unsuitable for habitation with no adequate services are the likely places available for the urban poor to settle (Manila Observatory 2004, Racelis 2009). Thus, the social vulnerability of the poor and the ecological vulnerability of their settlements put them in a more precarious situation. Thus, urban poor communities settled in the flood plains of Metro Manila and other danger zones such as creek sides and riverbanks have higher vulnerability levels to typhoons and floods and other climate-change-related risks (Porio 2009a).

Aside from typhoons and floods, the functioning of urban systems can also be severely challenged by a minor geological disturbance. A few years ago in Metro Manila a few years ago, a light earthquake put one small section of the track of the city's 15 km. light rail system out of alignment. This minor failure of the system caused it to be closed for several days and reduced its overall capacity for several months, in the process putting more traffic on the road network. Thus, a seemingly minor event as this can affect severely stability of the urban system.

**Pollution Levels (Air, Water, and Surface, Noise).** With the increasing degradation of the urban environments, pollution levels are also rising (see Table 11). Increased economic activities, lack of mass transport system, dependence on polluting vehicles (jeepneys, buses and tricycles), and reliance on fossil-based fuels account for this rise. About 40 percent of the total registered vehicles in the country are in Metro Manila. Reducing pollution levels mean that both

government and private sector need to change their approach to infrastructure and service delivery.

Table 11 Pollution Levels in Metro Manila Cities (June 2006 - June 2008)

| <b>Cities</b>  | <b>Jun '06</b> | <b>Jan '07</b> | <b>Jun '07</b> | <b>Jan '08</b> | <b>Jun '08</b> |
|----------------|----------------|----------------|----------------|----------------|----------------|
| Pasay          | 326            | 226            | 277            | 277            | 276            |
| Valenzuela     | 198            | 243            | 231            | 179            | 263            |
| Manila         | 102            | 178            | 127            | 122            | 198            |
| Mandaluyong    | 122            | 142            | 175            | 119            | 175            |
| NPO            | 166            | 135            | 130            | 119            | 122            |
| Makati         | 157            | 143            | 87             | 207            | 120            |
| Quezon City    | 135            | 111            | 94             | 139            | 113            |
| Pasig          | 82             | 72             | 144            | 102            | 96             |
| <b>Average</b> | <b>161</b>     | <b>156</b>     | <b>158</b>     | <b>158</b>     | <b>170</b>     |

Data Source: Ambient Air Monitoring, Environmental Management Bureau

Another indicator of the degradation of urban environments can be seen in Table 12 below showing the ecological footprints of the Philippines compared to other countries in both the developed and developing world. Ecological footprints measure the load imposed by a given population on nature and represent the area of the Earth's surface necessary to sustain levels of resource consumption and waste discharge by that population. The Philippines' ecological footprint of -17.86 does not compare favorably with Indonesia's 98.84 or Malaysia's 6.45 but compares well with Thailand's -73.97.

Table 12 Ecological Footprint, Selected Countries, 2005

| <b>Ecological Footprint, 2005</b> |                             |                                 |  |   |
|-----------------------------------|-----------------------------|---------------------------------|--|---|
| <b>Country/Region</b>             | <b>Population (million)</b> | <b>Biocapacity (gha/person)</b> | <b>Ecological deficit-reserve (gha/person)</b> | <b>Ecological deficit-reserve (million gha)</b> |
| World                             | 6,475.63                    | 2.06                            | -0.63  | -4,082.67                                       |
| High income countries             | 971.82                      | 3.67                            | -2.71  |   |
| Mid income countries              | 3,097.93                    | 2.16                            | -0.03  |   |
| Low income countries              | 2,370.63                    | 0.88                            | -0.12  |   |
| China                             | 1,323.35                    | 0.86                            | -1.25  | -1,654.13                                       |
| United States                     | 298.21                      | 5.02                            | -4.40  | -1,313.32                                       |
| Japan                             | 128.09                      | 0.60                            | -4.29  | -549.39   |
| India                             | 1,103.37                    | 0.41                            | -0.48  | -534.24   |
| S Korea                           | 47.82                       | 0.70                            | -3.04  | -145.51   |
| Thailand                          | 64.23                       | 0.98                            | -1.15  | -73.97  |
| <b>Philippines</b>                | <b>83.05</b>                | <b>0.54</b>                     | <b>-0.33</b>                                   | <b>-27.00</b>                                   |
| Singapore                         | 4.33                        | 0.03                            | -4.13  | -17.86  |
| Malaysia                          | 25.35                       | 2.67                            | 0.25   | 6.45  |
| Indonesia                         | 222.78                      | 1.39                            | 0.44   | 98.84   |
| Australia                         | 20.16                       | 15.42                           | 7.62   | 153.49  |
| Canada                            | 32.27                       | 20.05                           | 12.98  | 418.79  |

Source: Global footprint Network, 2008

Urban areas will always remain the major hubs of political, economic and social activities of the nation. As engines of economic growth, cities have more resources and opportunities to reduce poverty and inequalities in health, education and other basic services. But large urban agglomerations like Metro Manila also face greater challenges such as poverty, housing and traffic congestion, pollution, disease and environment and climate-change-related problems like increase of flood and typhoons.

Cities need to re-think the interaction of the risks and vulnerabilities generated by social, economic, and environmental changes in order to respond with creative solutions and innovation. Mitigation and adaptation mechanisms need to be devised both at the level of institutions and community groups (refer to the case boxes). The resilience of the people, especially the urban poor, amidst economic, political and environmental shocks have to find stronger support in government, business, and civil society groups. In this manner, pro-active stances and solutions towards environmental and climate-change related risks can be found.

## 6. Urban Social Change, Planning and Development

**6.1. Colonial Beginnings of Philippine Urbanism and City Planning.** Reed (1978) traced the beginnings of Philippine urbanism to the Spanish resettlement policy, *reduccion*, that shaped the character of both urban centres and rural settlements. This policy consolidated the residential pattern of the native population in the *poblacion* or village/town centre during the

early part of their colonization. In the late 19<sup>th</sup> century and subsequent decades, hispanic urbanism was the defining character of the the growth of the primate city, Manila, and other secondary centres like Cebu City, the second largest city in the Central Visayas region. The growth of these cities, in part was spawned by the mercantilist policy which laid the foundation for the highly unequal social structure and resource distribution between rural and urban areas. This process was facilitated by the large land grants known as the the *encomienda* system granted to elite individuals/groups. These land grants spurred the production of export oriented crops like tobacco, indigo and abaca hemp which also fueled the galleon trade between Manila, Mexico and Spain. These processes laid the foundation of a feudal colonial society and the highly unequal social structure in contemporary times.

The physical features of today's Philippine cities reflect this colonial heritage. The walled city of Intramuros in Manila and the military forts in the cities of Cebu and Zamboanga in Visayas and Mindanao, respectively, reflect the country's Spanish heritage. This is also seen the "plaza complex" town plan anchored on the parade grounds surrounded by the municipal hall, the Catholic Church, residence of the governor, military barracks, jail, and the grand houses of elite families. This physical lay-out reflects quite an elitist orientation which continues to be articulated in today's uneven urban development and settlement patterns (Laquian 2008). Increasing poverty and inequality confront Philippine cities today where residents of many slum and squatter settlements have no adequate access to housing, livelihood, solid waste management, sanitation, and other basic services while existing side by side with affluent, fully serviced, exclusive or gated residential communities.

As in earlier colonial periods, the current growth and expansion of Philippine cities is closely associated with the underlying political, economic, social and demographic processes experienced by the nation. Policymakers, wittingly or unwittingly, shaped the patterns of urban development through policies aimed largely to support the economic and political interests of the ruling elites.

**6.2. Revitalization of old cities/settlements.** The original seat of Spanish colonial power in the Philippines is the Intramuros *plaza* complex (case box below). As the primate city of the country, Manila reached its limits in the 1960s when city officials recognized that it could not adequately meet the housing, livelihood, and infrastructure needs of its population (Eisendel 2009). Starting in the 1960s, Intramuros, the Walled City during the Spanish era (1565-1898) started to be encroached by informal settlements. Over the years, as many inner-city quarters deteriorated, commercial activities, government offices and residential developments retreat to the suburbs of Makati, Quezon City, etc. If old cities like Manila are to survive, they have to undergo renovation or revitalization programs. The case box below illustrates an initiative carried out in the oldest urban quarters of the Philippines.

Box 5 Revitalizing the Walled City of Manila

### Revitalizing the Walled City of Manila<sup>8</sup>

<sup>8</sup> Steinberg, F. *Revitalization of Historic Inner-City Areas in Asia: The Potential for Urban Renewal in Ha Noi, Jakarta, and Manila*. Asian Development Bank, 2008.

Established in 1979, the Intramuros Administration began implementing land resource management techniques to initiate the revitalization of Intramuros in 1992. These included: 1) purchasing historical sites and structures for later use as offices and establishments, 2) merging lots to provide space for large-scale projects, 3) obtaining properties with historical and cultural importance, and 4) exchanging privately-owned land within Intramuros for government-owned land outside the area as a means of executing its transfer of development rights scheme.

Informal settlers living in the area pose problems to the revitalizing of the Walled City. They cluster in small groups, taking over unoccupied or private lands rented in Intramuros. The Intramuros Administration has successfully relocated illegal settlers squatting on government land in Intramuros. The Urban Planning and Community Development Division has even helped several private landowners in relocating the illegal settlers living in their private properties.

Both the urban planning study and the urban development plan adopted by the Intramuros Administration Board in 1992 continue to be used today as the basis for redeveloping Intramuros as a living museum. The main force for revitalization has been the upgrading and/or expansion of educational institutions, encouraging travel agencies to bring tourists to Intramuros, and organizing events at the area. Practicing the concept of adaptive reuse to the Walled city also required several concessions in the architectural design set to persuade the private sector to invest in commercial projects in Intramuros. For example, some of Intramuros' reconstructed structures are used as offices and commercial establishments. Intramuros also became the launch venue for a tourist promotion campaign known as WOW Philippines. Fort Santiago is being promoted and marketed as a primary tourist destination. Cultural festivities and the annual December Grand Marian Procession also facilitate Intramuros' gentrification.

The walls and fortifications of Intramuros serve as some of its important heritage structures and tourism venues. The Intramuros Administration leases out specific baluartes or parts of the walls for social events and film companies sometimes use them for sets. Moreover, the Intramuros Association, an agency which focuses on conservation of the Walled City has allotted a big portion of their budget to maintaining the walls and fortifications. For example, the growth of plants is prevented in order to stop roots from destroying the structural integrity of the walls.

Even though the Intramuros Administration experiences budgetary constraints, the walls, fortifications gates, monuments, plazas of Intramuros are properly maintained. Moreover, additional funds through occasional donations are given to conservation and restoration works that the Intramuros Administration gives the highest priority. All cultural properties are inspected yearly by the Cultural Properties and Conservation Division as part of its conservation plan.

## **7. Re-configuring Governance in Cities and Expanded Metropolitan Areas**

The governance and management of cities put tremendous demands on the upgrading of planning and fiscal management, effective coordination among local and national government agencies, and the participation of private sector and civil society organizations.

Effective urban governance is necessary to manage the unprecedented growth of urban populations and the expansion of the demand for urban services. Prior to the 1990s, the governance of cities was highly centralized. Thus, most of the planning and implementation of programs were largely embedded in the national/regional development policy frameworks. Up to the mid-1980s, the primate city model characterized urban development planning and management in the Philippines. To illustrate, Cebu City, the second largest city stung by the highly centralized character of governance and by the negative image of the Philippines in the 1980s due to the excesses of the Marcos dictatorship decided to advertise itself as “Cebu: An Island in the Pacific”. This strategy worked so well that in the late 1980s, while the rest of country suffered negative growth rates, Cebu posted positive growth rates and in the 1990s, its economic growth rate posted higher than the national average. This experience emboldened cities and local governments to push for more autonomy in planning and development.

The Regional Planning Framework heavily promoted in the 1980s attempted to decentralize urban development. To a certain extent, this approach supported the growth of regional cities/centres like San Fernando in Northern Luzon, Cebu City, Iloilo and Bacolod in Central Visayas, and Davao City or Cagayan de Oro in Mindanao. Light export oriented industries were dispersed outside of Metro Manila and given incentives to locate their factories in these cities. During this period, then, the government promoted the establishment of export processing zones (EPZs) in the cities of Baguio, Olongapo, and Cavite in Luzon and in Cebu City.

The above trend stems from the country’s drive to become globally/regionally competitive and to decentralize governance and the economy, which have spurred large cities to expand their physical areas for planning and expansion. Owing to the expansion of population and areas to be governend, metropolitan governance arrangements started occurring in the 1990s, This is seen in urban agglomerations of at least 1 million population like Metro Manila (12 million), Metro Cebu (1.6 million) and Metro Davao (2.5 million).

The governance and management of cities put tremendous demands on the upgrading of planning and fiscal management, effective coordination among local and national government agencies, and the participation of private sector and civil society organizations. But both central and local governments lack the institutional capacity and strength to formulate and implement a coherent urban development framework based on the decentralized and democratized structures and processes. This severe institutional weakness, has led to the planning in Mega Manila and other EMRs being relegated to the private sector (see case box below), with the latter taking over the planning and implementation of large real estate and infrastructural development programs (Shatkin 2006).

#### Box 6 Urban Planning and By-Pass Implant Urbanism in Metro Manila

**Urban Planning and By-Pass Implant Urbanism in Metro Manila**

For the past 15 years or so urban development in Metro Manila as well as regional planning initiatives in other parts of the country has increasingly become privatized. The government seemed to have retreated from city building as reflected in the

deterioration of the urban environment and the seeming take over of the planning function by the private sector. Large property developers have assumed new planning powers and developed visions for development in the metropolis and the surrounding mega-urban region. Shatkin (2004) used the term ‘bypass-implant urbanism’<sup>9</sup> to describe this type of urban development where private property developers have created urban development projects that cut “through the congested and decaying spaces of the ‘public city’ to allow a freer flow of people and capital, and to implant spaces for new forms of production and consumption into the urban fabric.”<sup>10</sup> In recent years, Metro Manila’s major development projects such as the development of “cities within cities” like the EastWood City in Quezon City, Bonifacio Global City in Taguig City, Greenbelt and Rockwell in Makati City have been undertaken by large private property developers such as Ayala Land Inc., Fil-Invest Corporation, Ortigas Group of Companies, Megaworld Corporation, and the Lopez Group of Companies. These development projects create sub-centres that integrate residential, commercial, office and industrial spaces in a contained area.

The entry of foreign direct investments, the emergence of export-processing zones and industrial parks in the fringes of the mega urban region has led to the rapid urbanization and economic growth of the provinces around Metro Manila, such as Cavite, Laguna, Batangas, and Rizal. Large private property developers have been responsible also for the creation of new, planned urban communities such as Ayala Alabang in Muntinlupa City on the fringe of Metro Manila or the Ayala Westgrove Heights and the Laguna Technopark in Laguna province. These property developments cater to the needs of high-end commercial establishments and residential enclaves. These private corporations, which have also been strong supporters and even investors in transportation infrastructure development opened these areas for investment and further development. A prime example is the MRT-3 light rail transit project, completed in 2002, developed by a consortium of four property developers, including Ayala Land Inc. These large urban development projects illustrate the expansion of the role of the private sector in the urban planning process, dominating everything from plan formulation to project implementation and many aspects of post project maintenance, leaving a very minimal role for government planning agencies.

The above pattern of urban planning and development is also happening in the urban centres of Region IV-A (Calabarzon), Region III (Central Luzon), Region VIII (Central Visayas), and Region XII (Socsksargen), regions which also had the highest annual urban growth rates from 1995-2000. Here, the planning of infrastructure, roads, and transport services try to service the capital intensive development sectors like commercial centers, malls, export-processing zones, and business processing/outsourcing services.

Source: Shatkin, Gavin (2006).

**Metro Governance in Metro Manila: Origins and Modeling for Other Metropolitan Cities**

**Origins of metro governance.** In the national capital city of Manila, urban problems such as poverty, inadequate housing and basic services, proliferation of slums, flooding, traffic congestion, uncollected garbage and increasing crime were perceived to have reached its levels in the mid-1960s. Many proposals for the establishment of a metropolitan governance and planning system were advanced, starting with the Metro Manila Mayors Coordinating Council of 17 cities and towns, comprising what was then known as the “Greater Manila Area”<sup>11</sup>. Under martial law, President Marcos created the Metro Manila Commission (MMC) in 1975 to act as a central government that will administer and provide services ( garbage collection/disposal and traffic management) to the Metro Manila area. The body was also in charge of: 1) coordinating and monitoring public and private urban services such as transport, flood control and drainage, water supply and sewerage, housing, health and environmental services, park development and others, 2) planning the social, economic and physical development of the metro area.

In trying to perform its functions, two central issues, among others, were leveled against the MMC: 1) it had usurped the powers and functions of the local government units (LGUs) comprising Metro Manila; 2) its accomplishments were actually implemented by national government agencies.

In 1986, the People Power Revolution installed President Corazon Aquino as president and diminished the powers of bodies created under the previous regime. The 1987 Constitution mandated that 1) the jurisdiction of metropolitan political subdivisions shall be limited to services requiring coordination, 2) cities and municipalities shall retain basic autonomy with their own local executives and legislative assemblies, 3) MMC becomes the Metro Manila Authority. The decentralization of local governments through the 1991 Local Government Code gave local authorities more powers, wider authority, and additional sources of revenues. This led to several bills filed in Congress to abolish the MMA. Republic Act 724 in 1995 replaced MMA with the Metro Manila Development Authority (MMDA), declaring Metro Manila a special development and administrative region. Headed by a chairman (with the rank of a cabinet member) who is appointed by the President as the chief executive officer (CEO) and the Metro Manila Mayors as the governing and policy-making body. The law also defined metropolitan-wide services as those which have metropolitan-wide impact and transcend local political boundaries, or entail huge expenditures, unviable for these services to be provided by individual local authorities such as: 1) development planning for the metropolitan area, 2) transport and traffic management, 3) solid waste disposal and management, 4) flood control and sewage, 5) urban renewal, zoning and land use planning, and shelter services, 6) health and sanitation, urban protection and pollution control, and 7) public safety, including disaster preparedness, prevention, rescue operations, and rehabilitation.

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<sup>11</sup> Largely based on Nathaniel Von Einsedel, Metro Manila: A Case Study in Metropolitan Planning and Governance, typescript, February 2009.

Given these multiple and overlapping functions with the national and local governments, it is no wonder that government is constantly faced with difficulties in trying to fulfill these mandates. An inherent conflict between metropolitan and local governments is embedded in the system as the differentiation between “metropolitan-wide” services and “purely local matters” which remains quite contentious. According to Laquian (2001), the “fragmented and particularistic” is reflected in the operation and dynamics of MMDA governance.

But the MMDA model of governance seems to be setting the pace for other extended metropolitan regions in the country such as Metro Cebu in Central Visayas and Metro Davao in Mindanao (see Box 8 below).

#### Box 8 Collaborative Governance in Metro Cebu and Metro Davao

##### **Collaborative Governance in Metro Cebu and Metro Davao**

Accessible through various ports and an international airport, Metro Cebu (MC)<sup>12</sup> is the second largest urban agglomeration in the Philippines and is the economic, trading, and educational hub of central and southern Philippines. One of the major sites of foreign investment since the late 80's, it has attracted migrants from nearby municipalities and provinces, adding stresses to its limited basic services, especially water, health and sanitation. Rural-urban migration along with high rate of natural increase has made it one of the most densely populated cities in the region.

Given the rapid growth of population, the demand for housing and basic services is reaching critical levels. With these challenges, the Metro Cebu Development Project created the Metro Cebu Development Council (MCDC), composed of the governor of Cebu and the mayors of Cebu City, Mandaue City, Lapu-Lapu City, Talisay City and the municipalities of Naga, Cordova, Consolacion, and Compostela. This structure mimicks that of the Metropolitan Manila Development Authority, a collaborative governing body favored by city officials in response to the need for effective governance and efficient service delivery in rapidly urbanizing areas like Metro Cebu. In like manner, Metro Davao under the Davao Integrated Development Program (DIDP)<sup>13</sup>, is also creating a similar structure to MCDC in order to develop it into a well-functioning and competitive metropolis.<sup>14</sup>

**Decentralization and democratization of urban governance.** The 1986 People Power Revolution, which threw out the Marcos dictatorship and ushered in the return of democracy under President Aquino and the promulgation of the 1987 Constitution set the foundations for the decentralization and democratization of the governance of cities and municipalities in the 1990s. Two landmark legislations have transformed the socio-political and economic landscapes of the country. The Local Government Code of 1992 (hereinafter, the Code) provided for people's

<sup>12</sup> Commission on Population (PopCom) and United Nations Population Fund (UNFPA). (2004). State of the Philippine Population Report 2004. *Urbis 5: Making Cities Work: Population, Urbanization and Local Governance*. Retrieved from <http://www.popcom.gov.ph/sppr/sppr03/pdfs/SPPR03.pdf>

<sup>13</sup> Mercado, Ruben G. (1998). In Search of Metropolitan Governance. *PIDS Discussion Paper Series (29)*. Makati: Philippine Institute for Development Studies.

<sup>14</sup> Ibid.

participation in local/urban governance, devolved central powers and responsibilities to local government units (LGUs), and increased their share of state revenues (Karaos, 1997; Porio 1997). The Code also devolved from national to local governments the responsibility to deliver basic services (including health and housing), define land use, promote tourism and ecological balance, among others. Thus, the decentralization of governance put more responsibility on the local government to raise local resources in supporting and financing urban basic services which have been largely devolved to them (Karaos 1994, Porio 1999, Racelis 2009).

The other major legislation that changed the dynamics of relationships between central and local governments and between government and urban poor communities is the Urban Development and Housing Act of 2002. Largely reinforcing the Code, this law among others, mandated local governments to: 1) prepare land use plans, 2) identify the number/location of urban poor households and land available for their housing needs, 3) register the number of actual and potential social housing beneficiaries. By the early 2000, only about 60 percent of the LGUs have complied with these mandates. Moreover, the follow-through of these initiatives have been painfully slow and evictions of informal settlers have continued.

State reforms and economic growth in the 1990s thus created and broadened the spaces for people's participation in urban development. Urban-poor focused advocacies of NGOs, CBOs/POs and other civil society organizations (CSOs) changed the dynamics of the urban poor communities' relationships and interactions with national/local officials, bureaucracies, and business groups (Etemadi 1997, Karaos 1997, Porio 1999, Racelis 2006, Rebullida 1997).

**A Vibrant Civil Society in Urban Governance.** The trend towards participatory and inclusive governance in some Philippine cities is largely due to the rise of a vibrant civil society sector in the last 20 years or so. Community organizing and mobilization by many NGOs/CBOs/POs dates back to the organization of informal settlers in resistance to the Tondo Foreshore Development Program supported by the World Bank in the early 1970s (Racelis 2006). The resistance movement during the martial law years further developed the advocacy and demand-making strategies of civil society groups, which found legitimacy and recognition in the subsequent political administrations. Since the enactment of UDHA in 1992, civil society organizations have been part and parcel of urban planning and development initiatives in most local governments.

**Challenges of urban governance.** The main challenge of urban governance emanates from the fiscal gap in most Philippine cities, there is a huge gap between perceived service needs and the demands of the burgeoning population and the available financial resources to meet them. The increasing demand in public service expenditure comes largely from the increase in population. There is a strong correlation between urbanization and increase in personal capita income and higher per capita demand for services (Bahl and Linn 1992; Manasan 2004). Urbanization of Philippine cities has also seen the expansion of market activities and services but lower delivery where the informal sector is quite large. This put increased pressure on public services. The per capita expenditures of Philippine cities supported by the IRA allocation have been growing for the past 15 years, especially after the devolution of central government functions/powers in 1991.

The decentralization of powers to local governments units (LGUs) has greatly benefited city governments but its most positive impacts are felt by those who were better-off in the first place. After the devolution of powers in 1991, the per capita expenditures of cities grew from 3.2 percent in 1991 to 14.9 percent in 1996. This faster growth in real per capita expenditures of cities were supported by IRA and from their increases in generating local resource revenues. Meanwhile, the resources generated by urban governments have increased from 2.4 percent before the devolution to 11.4 percent after the devolution. Moreover, urban-based local governments are able to generate more resources compared to their rural counterparts and play crucial roles in local resource mobilization and revenue generation.

But while local business and real property tax efforts of cities have improved alongside increases in population, an urban fiscal gap still exists as manifested in the reduced levels of public services. The evidence also indicates that the smaller cities are more prone to suffer from the current fiscal gap and reduction of public services. But among urban governments whose tax revenues and incomes improved, they tend to invest more on education and economic services but less on health services (Manasan 2004: 11-12). Thus, while policies towards an effective and efficient urban governance have been in place, the current experiences in devolution of functions and powers point to the need to re-calibrate and fine-tune them.

## **8. Towards a Sustainable Development of Cities and Towns**

Promoting sustainable and inclusive cities demand pro-active, comprehensive, integrated, and participatory urban planning and development framework. Urban planning in the 21<sup>st</sup> century needs to maximize the best of the top-down approach (e.g., a national/urban policy framework and strength of central authority/political will) of the national government and integrate it with a bottom-up approach (e.g., participation of stakeholders/communities, local resources and innovations) of the local governments. For example, the planning of the main growth corridors put the national government in charge of national development programs while giving local governments maximum potentials for resource mobilization, timing, and location of their urban development programs. This context creates an enabling environment for the decentralization of economic activities and services like housing, human services, and other social development programs. But the current situation leaves much to be desired.

A concrete example is the population management policy and program (including family planning services), which have been devolved to local governments. But an overarching policy that includes support for artificial contraceptives (with commensurate political will) and deployment of resources for its implementation is sorely lacking. By and large, the central government has accommodated the Catholic Church hierarchy's ban on artificial contraception. Local governments and CSOs supportive of family planning services for women have their hands tied because of this lack of an overarching policy and planning framework supportive of family planning and artificial contraception. While population management has been given to local governments, it needs an overarching policy and planning framework to allow the systematic implementation of the program to reduce population growth. The current situation allows the national government to say that it is the responsibility of the local governments while the latter just say they do not have the resources to do it. The result of this situation is reflected in the persistence of high maternal and infant mortality rates.

The case of population management is typical of other government policies and programs that have been formulated but cannot be implemented because of lack of political will and available resources. And whatever scarce resources that were budgeted for their implementation have not been used judiciously because of corruption and other institutional inefficiencies. The glaring example is the urban asset reforms program like urban land reform (specified by UDHA), social housing (e.g., Community Mortgage Program) and other similarly mandated but unfunded policies and programs (e.g., massive eviction and resettlement to distant sites without basic services).

**Sustainability challenges and responses.** Sustainability of cities need dynamic and sustainable economies, quality environment, social development and community participation (ADB 2008). In the Philippines, the uneven development between urban and rural areas, large metropolis and medium/smaller cities and within cities, between wealthy and poor neighborhoods pose threats to its sustainability. Social and spatial inequalities reflected in high levels of poverty incidence, unequal income distribution, and inadequate access to housing, health, education, and basic services. These inequalities are the accumulated results of historical and structural processes since colonial, post-colonial times and largely reinforced by modern and post-modern forces.

Urban planning and development strategies have to be recalibrated to take into account the increasing intensity and complexity posed by these forces. Cities and urban centers have to reconfigure their roles/functions and strategies within the national urban/national and regional development processes as well as the challenges faced by these cities given the increasing local-national-global interfaces.

But in spite of all the threats to sustainability of cities enumerated above, the future of national development largely hinges on urban growth and expansion. There is no doubt that both public, private and civil society sectors will respond with innovation and productivity. The cases highlighted here attest to the capacity of political, social, economic, and cultural institutions and actors (government, private sector, and civil society) to re-strategize and innovate in response to old and new urban problems. In the Philippines, the level of decentralized and democratized governance, with the participation of a very vibrant civil society sector (NGOs/CBOs/POs) provide great hope for urban sustainability. But these innovations need to be systematically mainstreamed to the overall planning and development of cities.

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## Appendix Tables and Figures

Appendix Table 1. Population and Urbanization in Selected ASEAN Countries

| Country        | Total Population<br>(million) |        | Urban Population<br>(%) |      | Average Annual Growth<br>Rate (%) |                     |
|----------------|-------------------------------|--------|-------------------------|------|-----------------------------------|---------------------|
|                | 1970                          | 2000   | 1970                    | 2000 | Total<br>Population               | Urban<br>Population |
| 1. Cambodia    | 6.94                          | 12.02  | 11.7                    | 15.9 | 1.85                              | 2.89                |
| 2. Indonesia   | 117.54                        | 210.42 | 17.1                    | 40.9 | 1.96                              | 4.82                |
| 3. Lao PDR     | 2.71                          | 5.28   | 9.6                     | 23.5 | 2.22                              | 5.20                |
| 4. Malaysia    | 10.85                         | 23.27  | 33.5                    | 57.4 | 2.54                              | 4.35                |
| 5. Myanmar     | 26.85                         | 47.75  | 22.8                    | 27.7 | 1.93                              | 2.61                |
| 6. Philippines | 36.55                         | 75.58  | 33.0                    | 49.0 | 2.44                              | 4.32                |
| 7. Thailand    | 35.75                         | 60.73  | 13.3                    | 21.6 | 1.81                              | 3.39                |
| 8. Vietnam     | 42.73                         | 78.52  | 18.3                    | 24.0 | 2.04                              | 2.98                |

Sources: World Development Indicators, 2001; [www.worldbank.org/WDI](http://www.worldbank.org/WDI), 2002; Philippines 2000 figures, NSO.

Appendix Table 2. Annual Growth Rate of Urban Population by Region (1975-2000)

| Region             |                                      | Urban Annual Growth Rate |            |            |            |
|--------------------|--------------------------------------|--------------------------|------------|------------|------------|
|                    |                                      | 1975-1980                | 1980-1990  | 1980-2000  | 1990-2000  |
| <b>Philippines</b> |                                      | <b>6.9</b>               | <b>4.6</b> | <b>3.6</b> | <b>2.6</b> |
| NCR                | National Capital Region              | 3.8                      | 3          | 2.6        | 2.3        |
| CAR                | Cordillera Administrative Region     | -                        | 6.5        | 5          | 3.5        |
| I                  | Ilocos                               | 6.5                      | 5.2        | 4.3        | 3.4        |
| II                 | Cagayan Valley                       | 11.1                     | 4          | 3.1        | 2.2        |
| III                | Central Luzon                        | 12.7                     | 5.3        | 4.5        | 3.7        |
| IV                 | Southern Tagalog                     | 10.3                     | 6.8        | 5.7        | 4.6        |
| V                  | Bicol                                | 7.0                      | 3.2        | 2.7        | 2.1        |
| VI                 | Western Visayas                      | 4.2                      | 4.5        | 1.9        | -0.6       |
| VII                | Central Visayas                      | 5.2                      | 4.8        | 4          | 3.1        |
| VIII               | Eastern Visayas                      | 5.3                      | 3.5        | 0.7        | -2         |
| IX                 | Western Mindanao                     | 8.3                      | 8.2        | 4.2        | 0.4        |
| X                  | Northern Mindanao                    | 14.0                     | 7.5        | 4.6        | 1.8        |
| XI                 | Southern Mindanao                    | 13.2                     | 4.2        | 3.4        | 2.5        |
| XII                | Central Mindanao                     | 7.2                      | 6.4        | 4.4        | 2.5        |
| ARMM               | Autonomous Region of Muslim Mindanao | -                        | 9.7        | 6          | 2.4        |
| XIII               | Caraga                               | -                        | 4.4        | 1.6        | -1.1       |

Source: National Statistics Office.

Note:

- The Autonomous Region in Muslim Mindanao (ARMM) was formally recognized as a separate region in 1990.
- Region 13 or Caraga was formally recognized as a separate region in 1995.

Appendix Table 3. Number of Urban Barangays by Region (1990-2000)

| <b>Number and Percent of Urban Barangays by Region</b> |                                      |                         |                         |                         |                         |                         |                         |
|--|--------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Region</b>  |                                      | <b>Number</b>           |                         | <b>Percent</b>          |                         | <b>All Barangays</b>    |                         |
|  |                                      | <b>1990<sup>a</sup></b> | <b>2000<sup>b</sup></b> | <b>1990<sup>a</sup></b> | <b>2000<sup>b</sup></b> | <b>1990<sup>a</sup></b> | <b>2000<sup>*</sup></b> |
| <b>Philippines</b>                                     |                                      | <b>7,145</b>            | <b>9,998</b>            | <b>17.75</b>            | <b>23.83</b>            | <b>40,246</b>           | <b>41,956</b>           |
| NCR <sup>c</sup>                                       | National Capital Region              | 1,689                   | 1,689                   | 100.0                   | 100.0                   | 1,689                   | 1,689                   |
| CAR  | Cordillera Administrative Region     | 188                     | 222                     | 16.04                   | 18.94                   | 1,172                   | 1,172                   |
| I  | Ilocos                               | 592                     | 812                     | 18.13                   | 24.87                   | 3,265                   | 3,265                   |
| II   | Cagayan Valley                       | 195                     | 283                     | 8.44                    | 12.25                   | 2,311                   | 2,310                   |
| III  | Central Luzon                        | 1021                    | 1286                    | 34.63                   | 43.61                   | 2,948                   | 2,949                   |
| IV   | Southern Tagalog                     | 1464                    | 1938                    | 26.08                   | 34.52                   | 5,614                   | 5,614                   |
| V  | Bicol                                | 409                     | 552                     | 11.78                   | 15.9                    | 3,471                   | 3,472                   |
| VI   | Western Visayas                      | 778                     | 671                     | 19.22                   | 16.58                   | 4,048                   | 4,047                   |
| VII  | Central Visayas                      | 574                     | 644                     | 19.11                   | 21.45                   | 3,003                   | 3,002                   |
| VIII   | Eastern Visayas                      | 440                     | 522                     | 10.02                   | 11.89                   | 4,390                   | 4,390                   |
| IX   | Western Mindanao                     | 273                     | 210                     | 12.92                   | 9.94                    | 2,113                   | 2,113                   |
| X  | Northern Mindanao                    | 274                     | 292                     | 18.1                    | 19.29                   | 1,514                   | 1,514                   |
| XI   | Southern Mindanao                    | 200                     | 199                     | 13.14                   | 13.07                   | 1,522                   | 1,523                   |
| XII  | Central Mindanao                     | 227                     | 258                     | 15.87                   | 18.03                   | 1,430                   | 1,431                   |
| ARMM   | Autonomous Region of Muslim Mindanao | 333                     | 256                     | 15.58                   | 11.97                   | 2,138                   | 2,139                   |
| XIII   | Caraga                               | 177                     | 156                     | 13.54                   | 11.94                   | 1,307                   | 1,307                   |

## Sources:

a – Population Commission <[http://www.popcom.gov.ph/featured\\_documents/urban\\_population.html](http://www.popcom.gov.ph/featured_documents/urban_population.html)>b – NSO <<http://www.census.gov.ph/data/sectordata/2003/pr0382.htm>>c – Data as of 1995, NSO <[www.census.gov.ph/ncr/ncrweb/about%20ncr/about\\_ncr.htm](http://www.census.gov.ph/ncr/ncrweb/about%20ncr/about_ncr.htm)>

\* - The numbers of barangays in the year 2000 have been derived from the number and percent of barangays, which were the only information provided by the source.

Appendix Table 4. Population Growth rates of Highly Urbanizing Cities (1970-2007)

| Population Growth Rates of HUCs* |        |                  |           |           |           |             |
|----------------------------------|--------|------------------|-----------|-----------|-----------|-------------|
| Cities                           | Region | Growth Rates (%) |           |           |           |             |
|                                  |        | 1970-1980        | 1980-1990 | 1990-1995 | 1995-2000 | 2000 – 2007 |
| National Capital Region          | NCR    | 4.1              | 2.98      | 3.3       | 1.06      | 2.11        |
| Baguio City                      | CAR    | 3.48             | 4.4       | 4.09      | 2.31      | 19.63       |
| Angeles City                     | III    | 3.45             | 2.28      | -0.21     | 2.61      | 17.44       |
| Olongapo City                    | III    | 3.79             | 2.14      | -1.35     | 1.68      | 16.99       |
| Lucena City                      | IV     | 3.43             | 3.34      | -         | -         | 20.56       |
| Iloilo City                      | VI     | 1.56             | 2.37      | 1.47      | 1.93      | 14.28       |
| Bacolod City                     | VI     | 3.43             | 3.33      | 1.88      | 1.39      | 16.41       |
| Cebu City                        | VII    | 3.51             | 2.22      | 1.54      | 1.77      | 11.13       |
| Mandaue City                     | VII    | 6.56             | 5.01      | 1.46      | 6.36      | 22.66       |
| Zamboanga City                   | IX     | 5.57             | 2.55      | 2.74      | 3.56      | 28.68       |
| Cagayan de Oro City              | X      | 5.88             | 4.1       | 4.44      | 4.44      | 19.94       |
| Iligan City                      | X      | 4.82             | 3.08      | 3.55      | 3.56      | 8.06        |
| Davao City                       | XI     | 4.52             | 3.37      | 3.22      | 2.83      | 18.85       |
| Marawi City                      | ARMM   | -0.35            | 5.5       | 4.18      | 4.19      | 35.32       |
| Cotabato City                    | XII    | 3.2              | 4.24      | 2.74      | 2.74      | 58.17       |
| General Santos City              | XII    | 5.69             | 5.3       | 5.14      | 5.05      | 28.59       |
| Butuan City                      | XIII   | 2.78             | 2.82      | 1.53      | 1.7       | 11.64       |

\* - HUCs as of 2000 Census on Population and Housing, NSO  
 <<http://www.census.gov.ph/data/pressrelease/2003/pr0382tx.html>>  
 Source: Philippine Yearbook 2006 and NSO Census 2007

Appendix Table 5. Labor Force Participation Rate (1988-2003).

**Table 3. Approved Investments by Region**  
(value in million pesos)

| Region               | 1988      | 1994       | 2000      | Regional Share (percent) |        |        |
|----------------------|-----------|------------|-----------|--------------------------|--------|--------|
|                      |           |            |           | 1988                     | 1994   | 2000   |
| A NCR                | 13,122.91 | 42,325.91  | 16,953.04 | 45.76                    | 28.22  | 18.81  |
| B CAR                | 8.59      | 653.08     | 1,575.16  | 0.03                     | 0.44   | 1.75   |
| I Ilocos             | 77.69     | 19,679.93  | 911.62    | 0.27                     | 13.12  | 1.01   |
| II Cagayan Valley    | —         | 321.20     | —         | 0.00                     | 0.21   | 0.00   |
| III Central Luzon    | 6,580.11  | 24,990.74  | 14,464.03 | 22.94                    | 16.66  | 16.04  |
| IV Southern Tagalog  | 4,577.46  | 29,390.49  | 50,415.44 | 15.96                    | 19.59  | 55.91  |
| V Bicol              | 77.99     | 338.43     | 1.47      | 0.27                     | 0.23   | 0.00   |
| VI West Visayas      | 640.56    | 247.68     | 1,130.92  | 2.23                     | 0.17   | 1.25   |
| VII Central Visayas  | 1,171.31  | 16,890.83  | 4,158.81  | 4.08                     | 11.26  | 4.61   |
| VIII East Visayas    | 31.86     | 5,229.73   | 19.55     | 0.11                     | 3.49   | 0.02   |
| IX West Mindanao     | 362.20    | 2,708.65   | 9.22      | 1.26                     | 1.81   | 0.01   |
| X North Mindanao     | 1,283.29  | 2,853.78   | 82.88     | 4.47                     | 1.90   | 0.09   |
| XI South Mindanao    | 745.26    | 1,006.74   | 432.96    | 2.60                     | 0.67   | 0.48   |
| XII Central Mindanao | —         | 3,367.50   | —         | 0.00                     | 2.24   | 0.00   |
| Philippines          | 28,579.23 | 150,004.68 | 90,155.09 | 100.00                   | 100.00 | 100.00 |

Sources: Board of Investments, Philippine Economic Zone Authority, National Statistics Coordination Board data.

Source: Pernia and Quising 2003

Appendix Table 6: Labor Force Participation Rate and Employment Status by Area and Sex

| Labor Force Participation Rate and Employment Status by Area and Sex (1988 - 2003) |  |       |       |                                  |        |        |                   |       |       |       |        |       |                     |       |       |       |        |       |
|--|--|-------|-------|----------------------------------|--------|--------|-------------------|-------|-------|-------|--------|-------|---------------------|-------|-------|-------|--------|-------|
| Year   | Labor Force Participation Rate (percent) |       |       | Total Labor Force (in thousands) |        |        | Employed(percent) |       |       |       |        |       | Unemployed(percent) |       |       |       |        |       |
|  |  |       |       |                                  |        |        | Total             |       | Male  |       | Female |       | Total               |       | Male  |       | Female |       |
|  | Total                                    | Urban | Rural | Total                            | Urban  | Rural  | Urban             | Rural | Urban | Rural | Urban  | Rural | Urban               | Rural | Urban | Rural | Urban  | Rural |
| 1988   | 65.4                                     | 61.9  | 67.7  | 23,451                           | 8,821  | 14,631 | 87.7              | 94.1  | 60.2  | 66.1  | 41.0   | 33.9  | 12.3                | 5.9   | 34.8  | 15.1  | 26.3   | 23.8  |
| 1991   | 64.5                                     | 62.3  | 66.9  | 25,246                           | 12,334 | 12,913 | 88.1              | 93.8  | 60.3  | 66.8  | 39.7   | 33.2  | 11.9                | 6.2   | 39.6  | 17.3  | 25.2   | 17.9  |
| 1994   | 64.4                                     | 61.6  | 67.3  | 27,483                           | 13,297 | 14,185 | 88.4              | 94.6  | 60.5  | 66.2  | 39.5   | 33.8  | 11.6                | 5.4   | 42.1  | 16.7  | 24.6   | 16.6  |
| 1997   | 65.5                                     | 63.1  | 67.7  | 30,265                           | 14,180 | 16,084 | 89.5              | 94.5  | 59.0  | 65.4  | 41.0   | 34.6  | 10.5                | 5.5   | 38.8  | 20.6  | 24.0   | 16.7  |
| 2000   | 64.3                                     | 62.2  | 66.4  | 30,908                           | 15,116 | 15,792 | 86.7              | 92.9  | 58.4  | 65.5  | 41.6   | 34.6  | 13.3                | 7.1   | 42.2  | 20.9  | 22.2   | 14.7  |
| 2003   | 67.1                                     | -     | -     | 35,120                           | -      | -      | 93.7              | -     | 61.8  | -     | 38.2   | -     | 6.3                 | -     | 61.8  | -     | 38.2   | -     |

Source: NSCB, Philippine Statistical Yearbook 1995, 1997 and 2008  
Philippine Yearbook, 2002

Notes:

1. Data were taken from the October round of the Labor Force Survey (LFS) using past week as reference period.
2. Urban and rural classification was no longer applied starting the July 2003 round of the LFS.
3. Details may not add up to totals due to rounding.

<sup>a</sup> – No data available for urban and rural classifications

Appendix Table 7. Functional Literacy of Household Population 10-64 years old by Sex and Region

| <b>Functional Literacy of the Household Population 10-64 years old by Sex and Region (in Percent)</b> |                                      |             |               |             |               |
|---|--------------------------------------|-------------|---------------|-------------|---------------|
| <b>Region</b>   |                                      | <b>1994</b> |               | <b>2003</b> |               |
|   |                                      | <b>Male</b> | <b>Female</b> | <b>Male</b> | <b>Female</b> |
| <b>Philippines</b>  |                                      | <b>81.7</b> | <b>85.9</b>   | <b>81.9</b> | <b>86.3</b>   |
| NCR   | National Capital Region              | 91.8        | 93.0          | 94.0        | 95.2          |
| CAR   | Cordillera Administrative Region     | 76.8        | 80.5          | 83.9        | 87.0          |
| I   | Ilocos                               | 85.6        | 87.3          | 88.1        | 89.2          |
| II  | Cagayan Valley                       | 86.6        | 86.6          | 82.9        | 86.1          |
| III   | Central Luzon                        | 86.1        | 88.5          | 86.5        | 87.4          |
| IVA   | CALABARZON                           | 86.3        | 89.8          | 88.8        | 92.0          |
| IVB   | MIMAROPA                             |             |               | 80.2        | 84.4          |
| V   | Bicol                                | 81.3        | 84.5          | 76.6        | 83.8          |
| VI  | Western Visayas                      | 77.3        | 84.8          | 77.7        | 85.2          |
| VII   | Central Visayas                      | 78.5        | 83.2          | 79.8        | 83.6          |
| VIII  | Eastern Visayas                      | 75.7        | 84.2          | 71.7        | 82.1          |
| IX  | Western Mindanao                     | 72.6        | 78.1          | 69.8        | 79.8          |
| X   | Northern Mindanao                    | 79.5        | 87.4          | 80.5        | 86.9          |
| XI  | Southern Mindanao                    | 75.6        | 83.2          | 73.7        | 82.2          |
| XII   | Central Mindanao                     | 74.2        | 80.7          | 74.5        | 79.7          |
| ARMM  | Autonomous Region of Muslim Mindanao | 63.2        | 59.1          | 77.3        | 84.6          |
| XIII  | Caraga                               | -           | -             | 63.6        | 62.1          |

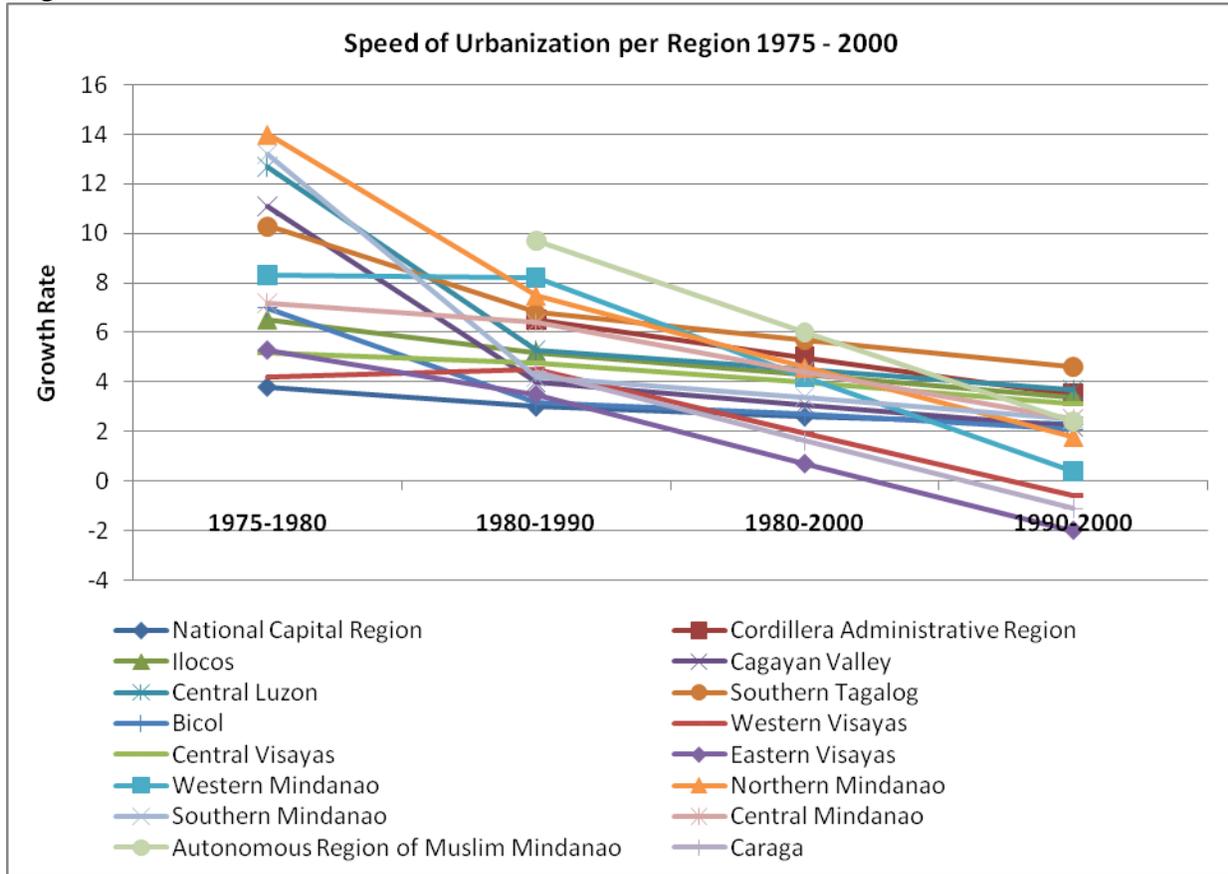
Source: NSO

<http://www.census.gov.ph/data/sectordata/1994/fl9406li.txt>

<http://www.census.gov.ph/data/sectordata/2003/fl03tabE.htm>

Note: Region 13 or Caraga was formally recognized as a separate region in 1995.

Appendix Figure 1. Speed of Urbanization in the Philippine Regions



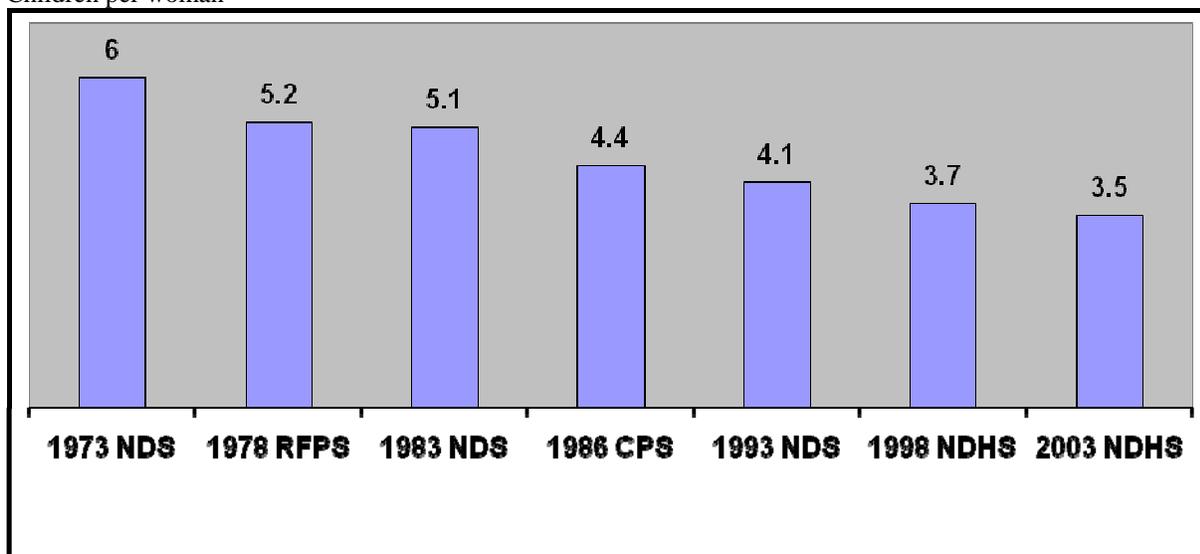
(graph derived from table above)

Note:

- The Autonomous Region in Muslim Mindanao (ARMM) was formally recognized as a separate region in 1990.
- Region 13 or Caraga was formally recognized as a separate region in 1995.

**Appendix Figure 2. Trends in the Total Fertility Rate**

Children per woman



Source: National Statistics Office (NSO) [Philippines], and ORC Macro (2004). *National Demographic and Health Survey 2003*. Calverton, Maryland: NSO and ORC Macro.

Appendix Figure 3  
**Metro Manila**



Source: Philippine Consulate of South Florida.

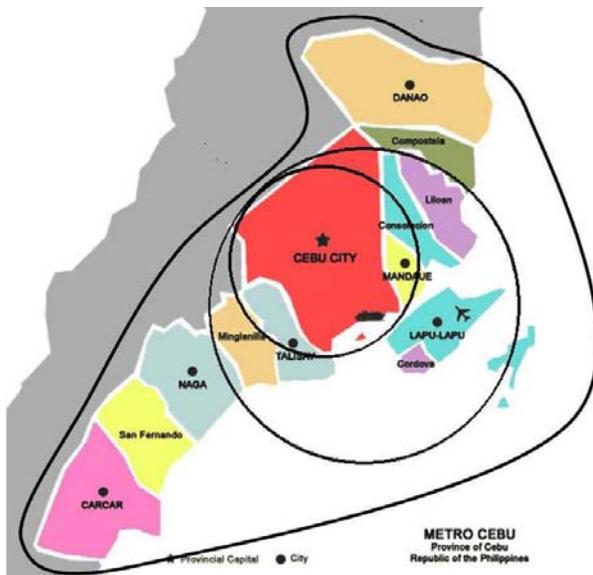
Note:

Core – Metro Manila

Inner Zone – Some cities in Batangas, Laguna, Quezon and Pampanga

Outer Zone - Some cities in Batangas, Laguna, Quezon, Pampanga, Nueva Ecija, and Tarlac

**Metro Cebu**



Source: CebuKasayuran (2008)

Notes:

Core – Cebu City

Inner Zone – Mandaue, Talisay and Lapu-Lapu

Outer Zone – Danao, San Fernando, Naga, Consolacion, Liloan, Compostela and Carcar

### **Metro Davao**



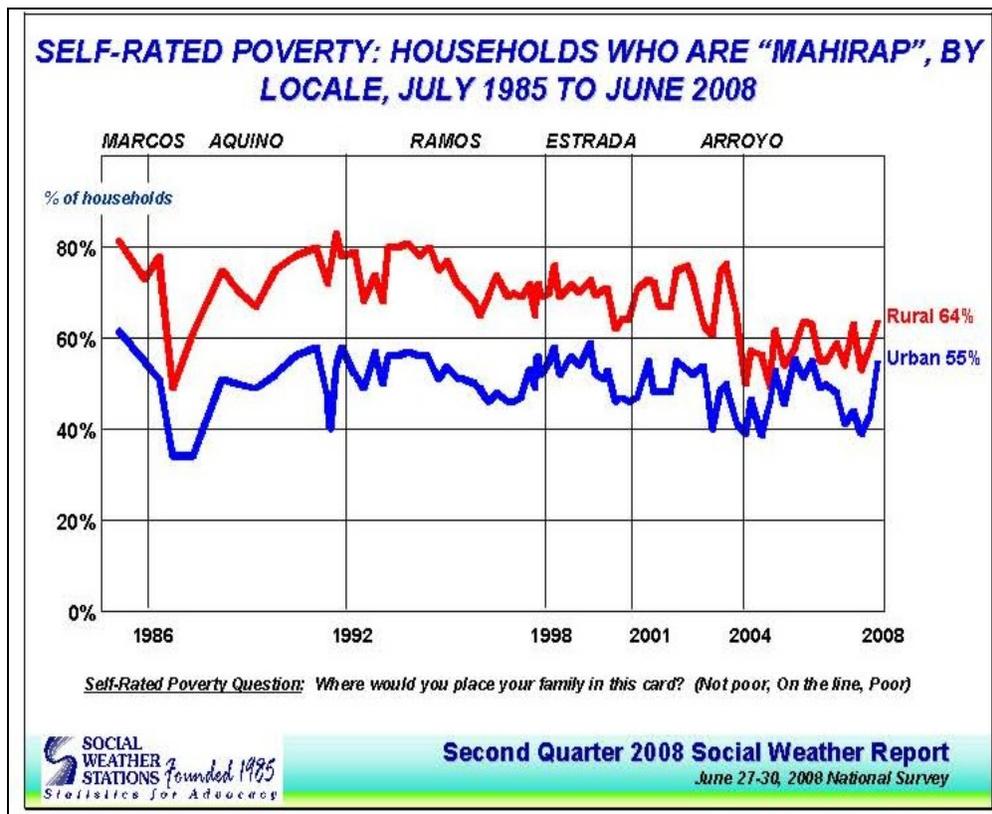
Source: Philippine Department of Budget and Management (2007)

Notes:

Core – Davao City, parts of Samal Island

Inner Zone – Parts of Samal Island, Panabo, Carmen and Sta. Cruz

Outer Zone, Digos, Tagum



**Figure 4. Self-Rated Poverty, Urban vs. Rural (1985-2008).**  
Source: Social Weather Stations

Weber, Douglas, Arturo Corpuz and Chris Pablo, *Towards a National Development Framework for the Philippines: Strategic Considerations*, September, 2003.

**Appendix Table 8. Gini Concentration Ratios by Region**

| <b>Region</b>           | <b>1988</b>   | <b>1991</b>   | <b>1994</b>   | <b>1997</b>   | <b>2000</b>   | <b>2003</b>   | <b>2006</b>   |
|-------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Philippines</b>      | <b>0.4446</b> | <b>0.4680</b> | <b>0.4507</b> | <b>0.4872</b> | <b>0.4822</b> | <b>0.4605</b> | <b>0.4580</b> |
| National Capital Region | 0.4258        | 0.4282        | 0.3967        | 0.4622        | 0.4451        | 0.4021        | 0.3988        |
| CAR                     | 0.3741        | 0.4372        | 0.4100        | 0.4640        | 0.4439        | 0.4296        | 0.4418        |
| Region I                | 0.3743        | 0.4039        | 0.3814        | 0.4257        | 0.4071        | 0.3926        | 0.3953        |
| Region II               | 0.3962        | 0.4172        | 0.4056        | 0.4130        | 0.4227        | 0.4410        | 0.4216        |
| Region III              | 0.3861        | 0.3986        | 0.3630        | 0.3638        | 0.3591        | 0.3515        | 0.3994        |
| Region IVA              | 0.4034        | 0.4236        | 0.4016        | 0.4247        | 0.4086        | 0.4036        | 0.4082        |
| Region IVB              |               |               |               |               | 0.4076        | 0.4350        | 0.4106        |
| Region V                | 0.3876        | 0.3910        | 0.4116        | 0.4362        | 0.4455        | 0.4660        | 0.4428        |
| Region VI               | 0.4080        | 0.4031        | 0.4063        | 0.4412        | 0.4594        | 0.4370        | 0.4326        |

|             |        |        |        |        |        |        |        |
|-------------|--------|--------|--------|--------|--------|--------|--------|
| Region VII  | 0.4602 | 0.4604 | 0.4417 | 0.4750 | 0.4691 | 0.4707 | 0.4639 |
| Region VIII | 0.4041 | 0.4149 | 0.4198 | 0.4457 | 0.4807 | 0.4580 | 0.4828 |
| Region IX   | 0.4087 | 0.4057 | 0.3861 | 0.4684 | 0.4732 | 0.5197 | 0.5054 |
| Region X    | 0.4424 | 0.4348 | 0.4157 | 0.4944 | 0.4794 | 0.4817 | 0.4806 |
| Region XI   | 0.4019 | 0.4348 | 0.4114 | 0.4495 | 0.4318 | 0.4574 | 0.4225 |
| Region XII  | 0.3583 | 0.4050 | 0.4280 | 0.4491 | 0.4631 | 0.4774 | 0.4006 |
| ARMM        | -      | 0.3197 | 0.3125 | 0.3406 | 0.3171 | 0.3578 | 0.3113 |
| Caraga      | -      | -      | -      | 0.4387 | 0.4118 | 0.4303 | 0.4452 |

Source: NSCB, Philippine Statistical Yearbook, 2000 and 2008

Appendix Table 9 Unemployed Persons by Sex and Region (percent)

| Region                  | Unemployed Person's by Sex and Region (percent) |        |       |        |       |        |       |        |       |        |       |        |
|-------------------------|---|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|
|                         | 1988  |        | 1991  |        | 1994  |        | 1997  |        | 2000  |        | 2003  |        |
|                         | Male  | Female | Male  | Female | Male  | Female | Male  | Female | Male  | Female | Male  | Female |
| National Capital Region | 64.93   | 35.07  | 64.09 | 35.91  | 62.35 | 37.65  | 59.20 | 40.80  | 65.10 | 34.90  | 37.29 | 62.71  |
| CAR                     | 43.48   | 56.52  | 43.48 | 56.52  | 48.15 | 51.85  | 62.16 | 37.84  | 37.50 | 62.50  | 39.13 | 60.87  |
| Region I                | 64.15   | 35.85  | 64.88 | 35.12  | 63.64 | 36.36  | 62.41 | 37.59  | 34.01 | 65.99  | 35.64 | 64.36  |
| Region II               | 54.17   | 45.83  | 52.50 | 47.50  | 42.11 | 57.89  | 41.30 | 58.70  | 56.45 | 43.55  | 48.33 | 51.67  |
| Region III              | 63.72   | 36.28  | 61.77 | 38.23  | 63.64 | 36.36  | 65.32 | 34.68  | 61.79 | 38.21  | 65.56 | 34.44  |
| Region IV               | 59.68   | 40.32  | 62.17 | 37.83  | 63.19 | 36.81  | 63.52 | 36.48  | 46.27 | 53.73  | 62.19 | 37.81  |
| Region V                | 45.26   | 54.74  | 39.25 | 60.75  | 51.76 | 48.24  | 48.72 | 51.28  | 60.13 | 39.87  | 58.82 | 41.18  |
| Region VI               | 54.25   | 45.75  | 47.90 | 52.10  | 51.37 | 48.63  | 56.61 | 43.39  | 59.39 | 40.61  | 40.77 | 59.23  |
| Region VII              | 61.90   | 38.10  | 57.72 | 42.28  | 63.98 | 36.02  | 66.27 | 33.73  | 67.09 | 32.91  | 68.69 | 31.31  |
| Region VIII             | 41.86   | 58.14  | 46.99 | 53.01  | 44.71 | 55.29  | 57.02 | 42.98  | 58.97 | 41.03  | 52.94 | 47.06  |
| Region IX               | 52.63   | 47.37  | 59.65 | 40.35  | 55.93 | 44.07  | 58.73 | 41.27  | 56.25 | 43.75  | 66.67 | 33.33  |
| Region X                | 57.41   | 42.59  | 58.68 | 41.32  | 57.14 | 42.86  | 53.62 | 46.38  | 55.56 | 44.44  | 55.17 | 44.83  |
| Region XI               | 50.71   | 49.29  | 45.10 | 54.90  | 56.97 | 43.03  | 58.09 | 41.91  | 61.78 | 38.22  | 57.24 | 42.76  |
| Region XII              | 48.00   | 52.00  | 50.75 | 49.25  | 68.52 | 31.48  | 54.90 | 45.10  | 64.44 | 35.56  | 55.56 | 44.44  |
| ARMM                    | -   | -      | -     | -      | 36.36 | 63.64  | 54.67 | 45.33  | 64.56 | 35.44  | 59.55 | 40.45  |
| Caraga                  | -   | -      | -     | -      | -     | -      | 40.91 | 59.09  | 35.48 | 64.52  | 33.96 | 66.04  |

Source: NSCB, Philippine Statistical Yearbook, 1995

<http://www.nscb.gov.ph/gender/PX/Dialog/varval.asp?ma=le06&ti=Unemployed+Persons+by+Year%2C+Region+and+Sex.+&path=../Database/NSCB/Areas/labor/&lang=1&unit=in+thousand+persons>

Notes:

1. Data were taken from the October round of the Labor Force Survey using past week as reference period.
2. Details may not add up to totals due to rounding.

Region  
MUSLIM MINDANAO

The Autonomous Region in Muslim Mindanao (ARMM) was formally recognized as a separate region in 1990.

Region  
CARAGA

Region 13 or Caraga was formally recognized as a separate region in 1995.

Appendix Table 10 Simple and Functional Literacy of the Household Population by Sex and Region (in Percent)

| Region                     | Simple/ Basic Literacy<br>(10 years old and over) |             |             |             | Functional Literacy<br>(10-64 years old) |             |             |             |
|----------------------------|---|-------------|-------------|-------------|--|-------------|-------------|-------------|
|                            | 1994  |             | 2003        |             | 1994                                     |             | 2003        |             |
|                            | Male  | Female      | Male        | Female      | Male                                     | Female      | Male        | Female      |
| <b>Philippines</b>         | <b>93.7</b>                                       | <b>94.0</b> | <b>92.6</b> | <b>94.3</b> | <b>81.7</b>                              | <b>85.9</b> | <b>81.9</b> | <b>86.3</b> |
| National Capital<br>Region | 98.9  | 98.8        | 98.9        | 99.1        | 91.8                                     | 93.0        | 94.0        | 95.2        |
| CAR                        | 89.9  | 87.5        | 92.0        | 91.1        | 76.8                                     | 80.5        | 83.9        | 87.0        |
| Region I                   | 96.1  | 94.8        | 97.6        | 97.3        | 85.6                                     | 87.3        | 88.1        | 89.2        |
| Region II                  | 93.7  | 92.8        | 92.1        | 93.5        | 86.6                                     | 86.6        | 82.9        | 86.1        |
| Region III                 | 96.5  | 96.1        | 96.8        | 96.9        | 86.1                                     | 88.5        | 86.5        | 87.4        |
| Region IVA                 | 96.8  | 96.0        | 96.8        | 97.5        | 86.3                                     | 89.8        | 88.8        | 92.0        |
| Region IVB                 |   |             | 91.4        | 91.0        |  |             | 80.2        | 84.4        |
| Region V                   | 94.8  | 95.0        | 93.8        | 96.3        | 81.3                                     | 84.5        | 76.6        | 83.8        |
| Region VI                  | 90.8  | 93.0        | 91.6        | 94.0        | 77.3                                     | 84.8        | 77.7        | 85.2        |
| Region VII                 | 93.4  | 92.8        | 91.5        | 93.2        | 78.5                                     | 83.2        | 79.8        | 83.6        |
| Region VIII                | 89.2  | 92.7        | 87.0        | 93.3        | 75.7                                     | 84.2        | 71.7        | 82.1        |
| Region IX                  | 89.1  | 90.1        | 86.8        | 90.9        | 72.6                                     | 78.1        | 69.8        | 79.8        |
| Region X                   | 93.8  | 95.5        | 90.1        | 93.5        | 79.5                                     | 87.4        | 80.5        | 86.9        |
| Region XI                  | 91.6  | 92.4        | 88.0        | 92.7        | 75.6                                     | 83.2        | 73.7        | 82.2        |
| Region XII                 | 90.3  | 91.4        | 85.9        | 88.8        | 74.2                                     | 80.7        | 74.5        | 79.7        |
| ARMM                       | 75.6  | 71.4        | 89.5        | 94.6        | 63.2                                     | 59.1        | 77.3        | 84.6        |
| Caraga                     | -   | -           | 71.0        | 69.4        | -  | -           | 63.6        | 62.1        |

Source: NSO

Simple Literacy:

<http://www.census.gov.ph/data/sectordata/1994/f19402li.txt>

<http://www.census.gov.ph/data/sectordata/2003/f103tabD.htm>

Functional Literacy:

<http://www.census.gov.ph/data/sectordata/1994/fl9406li.txt>

<http://www.census.gov.ph/data/sectordata/2003/fl03tabE.htm>

**Appendix Table 11. Philippine Poverty Incidence by Region**

| Region                 | 1985        | 1988        | 1991        | 1994        | 1997        | 2000        |
|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Philippines</b>     | <b>44.2</b> | <b>40.2</b> | <b>39.9</b> | <b>35.5</b> | <b>31.8</b> | <b>33.7</b> |
| NCR                    | 23.0        | 21.6        | 13.2        | 8.0         | 6.4         | 8.7         |
| 1 – Ilocos             | 37.5        | 44.9        | 48.4        | 47.9        | 37.8        | 37.1        |
| 2 – Cagayan Valley     | 37.8        | 40.4        | 43.3        | 35.5        | 32.1        | 29.5        |
| 3 - Central Luzon      | 27.7        | 29.3        | 31.1        | 25.2        | 15.4        | 18.6        |
| 4 – Southern Tagalog   | 40.3        | 41.1        | 37.9        | 29.7        | 25.7        | 25.3        |
| 5 – Bicol              | 60.5        | 54.5        | 55.0        | 55.1        | 50.1        | 55.4        |
| 6 - Western Visayas    | 59.9        | 49.4        | 45.3        | 43.0        | 39.9        | 43.1        |
| 7 - Central Visayas    | 57.4        | 46.8        | 41.7        | 32.7        | 34.4        | 38.8        |
| 8 - Eastern Visayas    | 59.0        | 48.9        | 40.1        | 37.9        | 40.8        | 43.6        |
| 9 - Western Mindanao   | 54.3        | 38.7        | 49.7        | 44.7        | 40.1        | 46.6        |
| 10 - Northern Mindanao | 53.1        | 46.1        | 53.0        | 49.2        | 47.0        | 45.7        |
| 11 - Southern Mindanao | 43.9        | 43.1        | 46.2        | 40.3        | 38.2        | 40.0        |
| 12 - Central Mindano   | 51.7        | 36.1        | 57.0        | 54.7        | 50.0        | 51.1        |
| CAR                    |             | 41.9        | 48.8        | 51.0        | 42.5        | 36.6        |
| ARMM                   |             |             | 50.7        | 60.0        | 57.3        | 66.0        |

Source of Basic Data: Family Income and Expenditure Surveys (1985-2000) Note: There is no official poverty threshold in CARAGA. Thus, the provinces of CARAGA are grouped with Region 10 (Agusan del Norte, Agusan del Sur and Surigao del Norte) or 11 (Surigao del Sur).

Appendix Table 12 Percent of Interregional Migrants by Sex and Region of Destination and Net Migration Rate: 1975-1980 and 1985-1990

**Percent of Interregional Migrants by Sex and Region of Destination and Net Migration Rate: 1975-1980 and 1985-1990**

| Region                  | 1975-1980 |        |                    | 1985-1990 |        |                    |
|-------------------------|-----------|--------|--------------------|-----------|--------|--------------------|
|                         | Male      | Female | Net Migration Rate | Male      | Female | Net Migration Rate |
| National Capital Region | 39.9      | 60.1   | 3.7                | 41.8      | 58.2   | 2.1                |
| CAR                     | -         | -      | -                  | 47.7      | 52.3   | -                  |
| Region I                | 46.2      | 53.8   | -1.8               | 47.4      | 52.6   | -0.9               |
| Region II               | 91.7      | 8.3    | -0.2               | 50.7      | 49.3   | -1.0               |
| Region III              | 45.8      | 54.2   | 0.3                | 47.3      | 52.7   | 1.6                |
| Region IV               | 49.2      | 50.8   | 1.4                | 49.1      | 50.9   | 1.4                |
| Region V                | 49.8      | 50.2   | -2.3               | 50.1      | 49.9   | 3.0                |
| Region VI               | 48.8      | 51.2   | -2.0               | 49.0      | 51.0   | -1.4               |

|             |      |      |      |      |      |      |
|-------------|------|------|------|------|------|------|
| Region VII  | 48.2 | 51.8 | -2.0 | 48.4 | 51.6 | -1.2 |
| Region VIII | 49.4 | 50.6 | -3.1 | 49.7 | 50.3 | -2.3 |
| Region IX   | 52.2 | 47.8 | -0.5 | 52.1 | 47.9 | 0.6  |
| Region X    | 51.6 | 48.4 | 1.7  | 51.8 | 48.2 | 0.7  |
| Region XI   | 51.6 | 48.4 | 1.1  | 51.8 | 48.2 | 0.5  |
| Region XII  | 50.8 | 49.2 | 1.0  | 50.8 | 49.2 | -0.6 |

Source: Philippine Yearbook, 1992 and 1997

Appendix Table 13 Manner of Garbage Disposal per Region (percent)

| Region  | Manner of Garbage Disposal per Region (percent) |           |                            |       |  |       |         |       |                                       |       |         |      |                    |       |        |      |
|---|---|-----------|----------------------------|-------|--|-------|---------|-------|---------------------------------------|-------|---------|------|--------------------|-------|--------|------|
|   | Total Number of Households                      |           | Picked-Up by Garbage Truck |       | Dumping in Individual Pit (Not Burned) |       | Burning |       | Composting (Later Used as Fertilizer) |       | Burying |      | Feeding to Animals |       | Others |      |
|   | 1990  | 2000      | 1990                       | 2000  | 1990                                   | 2000  | 1990    | 2000  | 1990                                  | 2000  | 1990    | 2000 | 1990               | 2000  | 1990   | 2000 |
| NCR   | 1,569,588                                       | 2,312,989 | 70.19                      | 82.58 | 6.81                                   | 2.82  | 18.79   | 4.86  | 0.48                                  | 0.37  | 0.75    | 0.50 | 1.01               | 0.34  | 1.96   | 0.31 |
| Cordillera<br>Autonomous Region               | 219,349   | 263,851   | 12.43                      | 27.27 | 22.72                                  | 18.46 | 42.22   | 36.07 | 4.99                                  | 5.14  | 2.10    | 2.01 | 13.56              | 10.35 | 1.98   | 0.69 |
| Ilocos  | 659,403   | 831,549   | 4.12                       | 11.00 | 1.14                                   | 12.47 | 72.15   | 66.44 | 4.66                                  | 4.89  | 3.41    | 3.12 | 3.83               | 1.90  | 0.38   | 0.19 |
| Cagayan<br>Valley                             | 446,839   | 554,491   | 3.55                       | 9.91  | 11.74                                  | 11.14 | 66.54   | 65.95 | 4.32                                  | 4.92  | 2.85    | 3.13 | 10.31              | 4.82  | 0.81   | 0.14 |
| Central<br>Luzon                              | 1,163,205                                       | 1,632,047 | 11.54                      | 36.35 | 10.17                                  | 7.15  | 68.99   | 51.02 | 1.81                                  | 1.48  | 3.58    | 2.70 | 1.93               | 1.03  | 1.99   | 0.27 |
| Southern<br>Tagalog                           | 1,583,682                                       | 2,413,043 | 11.83                      | 41.27 | 7.96                                   | 5.90  | 65.77   | 47.00 | 1.66                                  | 1.87  | 3.54    | 2.42 | 7.16               | 1.24  | 2.07   | 0.31 |
| Bicol   | 708,802   | 893,833   | 2.97                       | 13.67 | 12.63                                  | 9.98  | 60.98   | 57.86 | 2.92                                  | 3.43  | 6.78    | 5.67 | 11.77              | 8.86  | 1.95   | 0.53 |
| Western<br>Visayas                            | 985,274   | 1,211,804 | 5.08                       | 14.39 | 11.90                                  | 10.46 | 61.47   | 57.86 | 4.21                                  | 4.54  | 5.32    | 4.51 | 9.87               | 7.80  | 2.15   | 0.45 |
| Central<br>Visayas                            | 873,843   | 1,133,767 | 8.93                       | 22.25 | 14.94                                  | 11.14 | 58.54   | 53.75 | 6.92                                  | 5.49  | 2.43    | 2.87 | 6.41               | 4.03  | 1.83   | 0.48 |
| Eastern<br>Visayas                            | 584,964   | 715,070   | 2.35                       | 13.95 | 24.14                                  | 19.48 | 32.05   | 43.86 | 3.31                                  | 5.46  | 4.41    | 3.24 | 29.24              | 12.63 | 4.51   | 1.38 |
| Western<br>Mindanao                           | 577,837   | 595,831   | 4.27                       | 12.16 | 19.26                                  | 19.52 | 56.77   | 51.60 | 3.88                                  | 8.74  | 3.98    | 3.77 | 6.28               | 2.15  | 5.57   | 2.05 |
| Northern<br>Mindanao                          | 639,108   | 542,071   | 5.81                       | 19.31 | 20.86                                  | 12.90 | 56.38   | 55.04 | 5.35                                  | 65.05 | 3.52    | 3.19 | 5.31               | 2.32  | 2.77   | 0.74 |
| Southern<br>Mindanao                          | 832,316   | 1,066,199 | 6.83                       | 24.00 | 21.19                                  | 14.60 | 54.75   | 48.31 | 4.91                                  | 6.59  | 4.25    | 4.41 | 4.19               | 1.36  | 2.79   | 0.72 |
| Central<br>Mindanao                           | 572,052   | 501,870   | 4.30                       | 16.13 | 18.26                                  | 15.34 | 59.89   | 54.09 | 5.04                                  | 6.44  | 5.54    | 3.94 | 4.13               | 3.19  | 2.84   | 0.87 |
| Autonomous<br>Region<br>of Muslim<br>Mindanao | -   | 393,269   | -                          | 3.66  | -                                      | 19.75 | -       | 56.98 | -                                     | 5.39  | -       | 5.61 | -                  | 3.95  | -      | 4.66 |
| CARAGA  | -   | 393,362   | -                          | 15.73 | -                                      | 16.40 | -       | 47.44 | -                                     | 11.12 | -       | 4.00 | -                  | 3.86  | -      | 1.46 |

Source: NSO

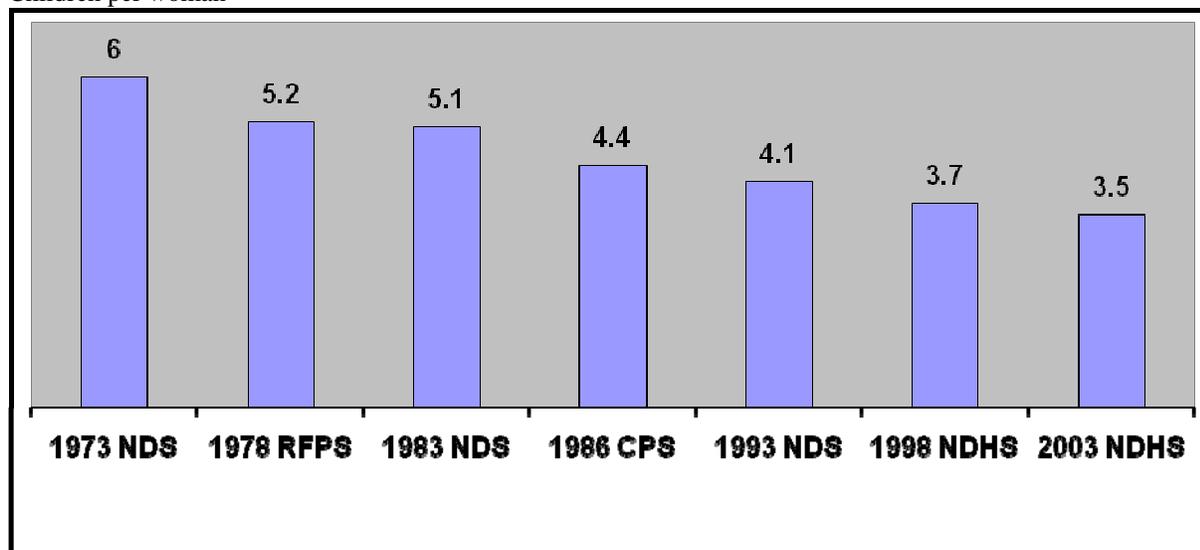
Appendix Table 14 Households by Kind of Toilet Facility Being Used and by Region (Percent)

| Region                               | Households by Kind of Toilet Facility Being Used and by Region (percent) |              |  |       |   |       |   |       |  |       |            |       |          |       |                            |       |       |       |
|--------------------------------------|--|--------------|--|-------|---|-------|---|-------|--|-------|------------|-------|----------|-------|----------------------------|-------|-------|-------|
|                                      | Total Households   |              | Water-sealed, Sewer/Septic Tank, Used Exclusively by the Household |       | Water-sealed, Sewer/Septic Tank, Shared with Other Households |       | Water-sealed, Other Depository, Used Exclusively by the Household |       | Water-sealed, Other Depository, Shared with Other Households |       | Closed Pit |       | Open Pit |       | Others (Pail System, etc.) |       | None  |       |
|                                      | 1990   | 2000         | 1990   | 2000  | 1990  | 2000  | 1990  | 2000  | 1990   | 2000  | 1990       | 2000  | 1990     | 2000  | 1990                       | 2000  | 1990  | 2000  |
| NCR                                  | 1,569,588.00   | 2,312,989.00 | 64.26  | 62.56 | 17.75   | 15.21 | 4.94  | 6.68  | 2.68   | 4.16  | 1.91       | 8.00  | 1.49     | 0.59  | 1.97                       | 1.10  | 3.74  | 0.92  |
| Cordillera Autonomous Region         | 219,349.00   | 263,851.00   | 23.36  | 36.60 | 8.92  | 8.84  | 5.56  | 10.83 | 2.71   | 4.54  | 14.79      | 14.74 | 34.98    | 20.23 | 1.46                       | 0.67  | 7.67  | 3.55  |
| Ilocos                               | 659,403.00   | 831,549.00   | 35.24  | 34.95 | 7.82  | 6.14  | 23.62   | 32.40 | 7.77   | 11.76 | 9.10       | 8.37  | 10.23    | 4.33  | 0.69                       | 0.57  | 3.51  | 1.49  |
| Cagayan Valley                       | 446,839.00   | 554,491.00   | 26.57  | 26.55 | 7.43  | 0.54  | 23.93   | 34.49 | 9.71   | 13.24 | 8.65       | 9.23  | 15.85    | 8.48  | 0.40                       | 0.52  | 5.10  | 2.08  |
| Central Luzon                        | 1,163,205.00   | 1,632,047.00 | 39.77  | 48.68 | 9.59  | 8.25  | 14.15   | 22.12 | 4.64   | 8.19  | 9.99       | 5.68  | 7.77     | 2.11  | 2.34                       | 1.52  | 9.88  | 0.32  |
| Southern Tagalog                     | 1,583,682.00   | 2,413,043.00 | 36.27  | 50.41 | 7.83  | 7.98  | 8.81  | 14.70 | 2.59   | 5.42  | 8.89       | 6.94  | 13.41    | 4.78  | 1.89                       | 1.68  | 18.96 | 8.09  |
| Bicol                                | 708,802.00   | 893,833.00   | 25.45  | 33.74 | 4.94  | 6.14  | 10.92   | 16.14 | 2.86   | 5.62  | 10.18      | 11.17 | 16.25    | 9.02  | 3.12                       | 2.58  | 25.53 | 15.59 |
| Western Visayas                      | 985,274.00   | 1,211,804.00 | 21.62  | 28.84 | 3.53  | 4.02  | 8.57  | 17.54 | 2.21   | 4.64  | 15.72      | 15.58 | 25.93    | 13.29 | 2.02                       | 1.77  | 19.89 | 14.34 |
| Central Visayas                      | 873,843.00   | 1,133,767.00 | 28.02  | 35.53 | 6.61  | 8.55  | 10.17   | 14.10 | 2.79   | 5.45  | 7.84       | 7.18  | 11.01    | 6.42  | 1.41                       | 1.66  | 31.31 | 21.11 |
| Eastern Visayas                      | 584,964.00   | 715,070.00   | 29.47  | 36.60 | 5.55  | 6.32  | 10.45   | 14.81 | 2.20   | 4.21  | 3.58       | 5.63  | 9.33     | 6.32  | 2.59                       | 2.18  | 36.34 | 23.92 |
| Western Mindanao                     | 577,837.00   | 595,831.00   | 18.39  | 2.08  | 4.13  | 6.13  | 9.51  | 17.31 | 2.84   | 4.72  | 10.62      | 15.80 | 24.26    | 14.02 | 4.27                       | 2.69  | 25.88 | 13.76 |
| Northern Mindanao                    | 639,108.00   | 542,071.00   | 32.56  | 40.59 | 6.71  | 80.02 | 11.00   | 13.38 | 4.38   | 4.29  | 13.51      | 15.07 | 15.73    | 11.33 | 1.16                       | 1.01  | 15.62 | 6.26  |
| Southern Mindanao                    | 832,316.00   | 1,066,199.00 | 29.57  | 38.02 | 8.42  | 9.58  | 11.12   | 15.69 | 4.18   | 7.08  | 14.00      | 13.02 | 18.35    | 9.97  | 1.33                       | 1.02  | 10.77 | 5.62  |
| Central Mindanao                     | 572,052.00   | 501,870.00   | 17.07  | 27.00 | 4.74  | 6.65  | 8.58  | 17.61 | 4.51   | 7.45  | 14.65      | 15.09 | 32.00    | 16.54 | 3.03                       | 2.17  | 15.98 | 7.46  |
| Autonomous Region of Muslim Mindanao | -  | 393,269.00   | -  | 10.03 | -   | 3.44  | -   | 70.35 | -  | 4.20  | -          | 17.84 | -        | 34.03 | -                          | 12.17 | -     | 12.03 |
| CARAGA                               | -  | 393,362.00   | -  | 39.05 | -   | 6.91  | -   | 20.93 | -  | 4.65  | -          | 10.68 | -        | 6.41  | -                          | 1.47  | -     | 9.90  |

Source: NSO

**Appendix Figure 5**  
**Figure Trends in the Total Fertility Rate**

Children per woman



Source: National Statistics Office (NSO) [Philippines], and ORC Macro (2004). *National Demographic and Health Survey 2003*. Calverton, Maryland: NSO and ORC Macro.

Appendix Table 15 Functional Literacy of the Household Population 10-64 years old by Sex and Region (in Percent)

| <b>Functional Literacy of the Household Population 10-64 years old by Sex and Region (in Percent)</b> |                                  |             |               |             |               |
|---|----------------------------------|-------------|---------------|-------------|---------------|
| <b>Region</b>   |                                  | <b>1994</b> |               | <b>2003</b> |               |
|   |                                  | <b>Male</b> | <b>Female</b> | <b>Male</b> | <b>Female</b> |
| <b>Philippines</b>  |                                  | <b>81.7</b> | <b>85.9</b>   | <b>81.9</b> | <b>86.3</b>   |
| NCR   | National Capital Region          | 91.8        | 93.0          | 94.0        | 95.2          |
| CAR   | Cordillera Administrative Region | 76.8        | 80.5          | 83.9        | 87.0          |
| I   | Ilocos                           | 85.6        | 87.3          | 88.1        | 89.2          |
| II  | Cagayan Valley                   | 86.6        | 86.6          | 82.9        | 86.1          |
| III   | Central Luzon                    | 86.1        | 88.5          | 86.5        | 87.4          |
| IVA   | CALABARZON                       | 86.3        | 89.8          | 88.8        | 92.0          |
| IVB   | MIMAROPA                         |             |               | 80.2        | 84.4          |
| V   | Bicol                            | 81.3        | 84.5          | 76.6        | 83.8          |
| VI  | Western Visayas                  | 77.3        | 84.8          | 77.7        | 85.2          |
| VII   | Central Visayas                  | 78.5        | 83.2          | 79.8        | 83.6          |
| VIII  | Eastern Visayas                  | 75.7        | 84.2          | 71.7        | 82.1          |

|      |                                      |      |      |      |      |
|------|--------------------------------------|------|------|------|------|
| IX   | Western Mindanao                     | 72.6 | 78.1 | 69.8 | 79.8 |
| X    | Northern Mindanao                    | 79.5 | 87.4 | 80.5 | 86.9 |
| XI   | Southern Mindanao                    | 75.6 | 83.2 | 73.7 | 82.2 |
| XII  | Central Mindanao                     | 74.2 | 80.7 | 74.5 | 79.7 |
| ARMM | Autonomous Region of Muslim Mindanao | 63.2 | 59.1 | 77.3 | 84.6 |
| XIII | Caraga                               | -    | -    | 63.6 | 62.1 |

Source: NSO

<http://www.census.gov.ph/data/sectordata/1994/fl9406li.txt>

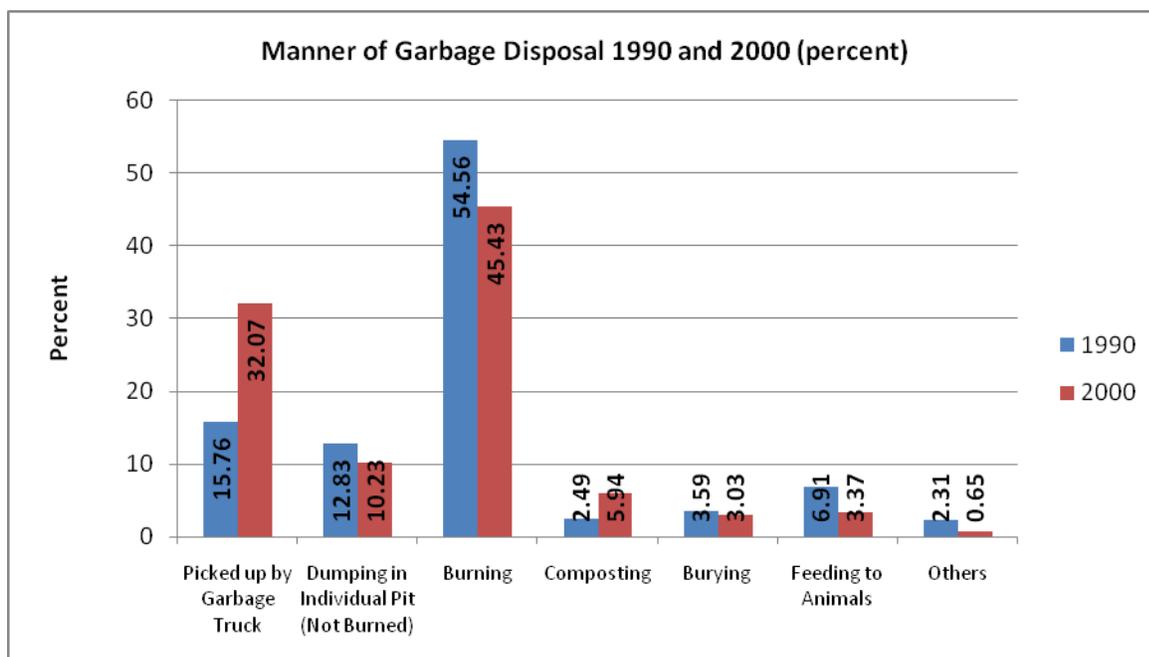
<http://www.census.gov.ph/data/sectordata/2003/fl03tabE.htm>

Note: Region 13 or Caraga was formally recognized as a separate region in 1995.

Appendix Table 16 Main Source of Water Supply for Drinking and/or Cooking per Region (percent)

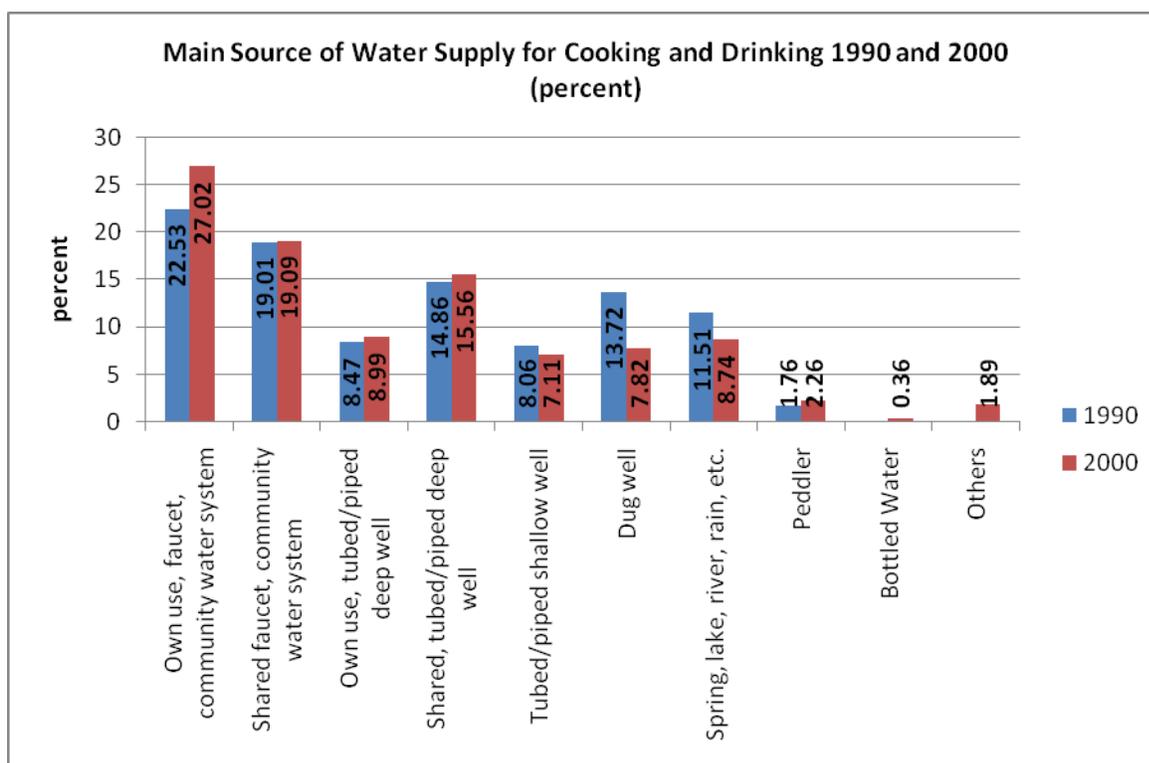
| Region                               | Main Source of Water Supply for Drinking and/or Cooking per Region (percent) |           |   |       |                                       |       |                                |       |                               |       |                          |       |          |       |                                 |       |         |      |               |      |        |      |
|--------------------------------------|--|-----------|---|-------|---------------------------------------|-------|--------------------------------|-------|-------------------------------|-------|--------------------------|-------|----------|-------|---------------------------------|-------|---------|------|---------------|------|--------|------|
|                                      | Total Number of Households   |           | Own use, faucet, community water system |       | Shared faucet, community water system |       | Own use, tubed/piped deep well |       | Shared, tubed/piped deep well |       | Tubed/piped shallow well |       | Dug well |       | Spring, lake, river, rain, etc. |       | Peddler |      | Bottled Water |      | Others |      |
|                                      | 1990   | 2000      | 1990                                    | 2000  | 1990                                  | 2000  | 1990                           | 2000  | 1990                          | 2000  | 1990                     | 2000  | 1990     | 2000  | 1990                            | 2000  | 1990    | 2000 | 1990          | 2000 | 1990   | 2000 |
| NCR                                  | 1,569,588  | 2,312,989 | 54.53                                   | 46.83 | 27.65                                 | 22.40 | 4.42                           | 3.67  | 7.43                          | 8.94  | 0.54                     | 0.56  | 0.81     | 0.56  | 0.10                            | 0.16  | 4.51    | 5.85 | -             | 1.19 | -      | 2.07 |
| Cordillera Autonomous Region         | 219,349  | 263,851   | 28.33                                   | 34.31 | 27.63                                 | 26.82 | 3.84                           | 4.95  | 8.26                          | 9.83  | 3.55                     | 3.99  | 9.54     | 4.02  | 18.24                           | 12.28 | 0.62    | 1.61 | -             | 0.39 | -      | 1.80 |
| Ilocos                               | 659,403  | 831,549   | 15.07                                   | 16.84 | 11.63                                 | 8.89  | 18.75                          | 23.28 | 22.20                         | 25.62 | 18.29                    | 14.92 | 11.65    | 6.92  | 2.20                            | 2.26  | 0.21    | 0.13 | -             | 0.10 | -      | 1.04 |
| Cagayan Valley                       | 446,839  | 554,491   | 8.93                                    | 11.96 | 7.89                                  | 6.77  | 14.57                          | 17.15 | 23.94                         | 26.20 | 17.34                    | 18.09 | 20.89    | 14.15 | 6.17                            | 4.57  | 0.27    | 0.17 | -             | 0.04 | -      | 0.91 |
| Central Luzon                        | 1,163,205  | 1,632,047 | 23.85                                   | 30.75 | 15.01                                 | 12.63 | 19.07                          | 19.98 | 21.00                         | 20.16 | 15.88                    | 11.36 | 2.53     | 1.45  | 1.40                            | 1.39  | 1.27    | 0.71 | -             | 0.25 | -      | 1.32 |
| Southern Tagalog                     | 1,583,682  | 2,413,043 | 26.35                                   | 34.43 | 20.43                                 | 17.69 | 9.82                           | 10.08 | 16.67                         | 14.79 | 7.46                     | 7.21  | 10.38    | 5.60  | 7.57                            | 5.21  | 1.32    | 2.77 | -             | 0.40 | -      | 1.82 |
| Bicol                                | 708,802  | 893,833   | 15.71                                   | 20.15 | 19.27                                 | 21.77 | 7.68                           | 7.48  | 11.48                         | 14.00 | 8.34                     | 8.28  | 21.52    | 13.92 | 14.13                           | 10.19 | 1.88    | 2.81 | -             | 0.12 | -      | 1.28 |
| Western Visayas                      | 985,274  | 1,211,804 | 10.66                                   | 14.13 | 12.42                                 | 13.81 | 7.15                           | 8.66  | 16.98                         | 22.22 | 8.30                     | 8.68  | 30.18    | 17.30 | 12.39                           | 9.81  | 1.91    | 2.13 | -             | 0.28 | -      | 2.97 |
| Central Visayas                      | 873,843  | 1,133,767 | 14.03                                   | 21.59 | 21.67                                 | 24.67 | 4.23                           | 3.43  | 16.76                         | 15.65 | 4.60                     | 4.20  | 18.76    | 11.71 | 17.23                           | 13.71 | 2.72    | 2.32 | -             | 0.35 | -      | 2.37 |
| Eastern Visayas                      | 584,964  | 715,070   | 13.58                                   | 17.63 | 27.80                                 | 33.49 | 4.08                           | 4.38  | 13.47                         | 14.52 | 6.20                     | 5.78  | 19.07    | 11.61 | 15.00                           | 9.08  | 0.81    | 0.99 | -             | 0.04 | -      | 2.48 |
| Western Mindanao                     | 577,837  | 595,831   | 12.56                                   | 19.19 | 15.99                                 | 24.68 | 3.03                           | 2.92  | 6.81                          | 9.27  | 4.13                     | 5.09  | 31.65    | 15.76 | 23.01                           | 19.66 | 2.81    | 1.70 | -             | 0.08 | -      | 1.65 |
| Northern Mindanao                    | 639,108  | 542,071   | 19.64                                   | 29.60 | 24.35                                 | 28.94 | 3.30                           | 2.47  | 12.50                         | 8.84  | 4.49                     | 2.96  | 11.65    | 5.10  | 23.48                           | 19.98 | 0.59    | 0.79 | -             | 0.09 | -      | 1.22 |
| Southern Mindanao                    | 832,316  | 1,066,199 | 16.60                                   | 24.20 | 16.28                                 | 19.38 | 7.47                           | 6.73  | 16.74                         | 16.85 | 8.66                     | 7.04  | 8.54     | 4.26  | 23.95                           | 18.51 | 0.68    | 1.09 | -             | 0.11 | -      | 1.83 |
| Central Mindanao                     | 572,052  | 501,870   | 11.46                                   | 18.05 | 12.34                                 | 15.33 | 6.49                           | 10.54 | 11.77                         | 15.94 | 10.64                    | 9.61  | 20.07    | 10.80 | 26.43                           | 16.62 | 0.79    | 1.68 | -             | 0.09 | -      | 1.34 |
| Autonomous Region of Muslim Mindanao | -  | 393,269   | -                                       | 9.78  | -                                     | 8.31  | -                              | 4.66  | -                             | 7.45  | -                        | 7.84  | -        | 23.85 | -                               | 31.06 | -       | 1.63 | -             | 0.09 | -      | 5.31 |
| CARAGA                               | -  | 393,362   | -                                       | 20.11 | -                                     | 29.38 | -                              | 4.59  | -                             | 15.45 | -                        | 5.68  | -        | 6.64  | -                               | 16.15 | -       | 0.89 | -             | 0.04 | -      | 1.08 |

Appendix Figure 6 Manner of Garbage Disposal, 1990 and 2000 (percent)



Source: National Statistics Office

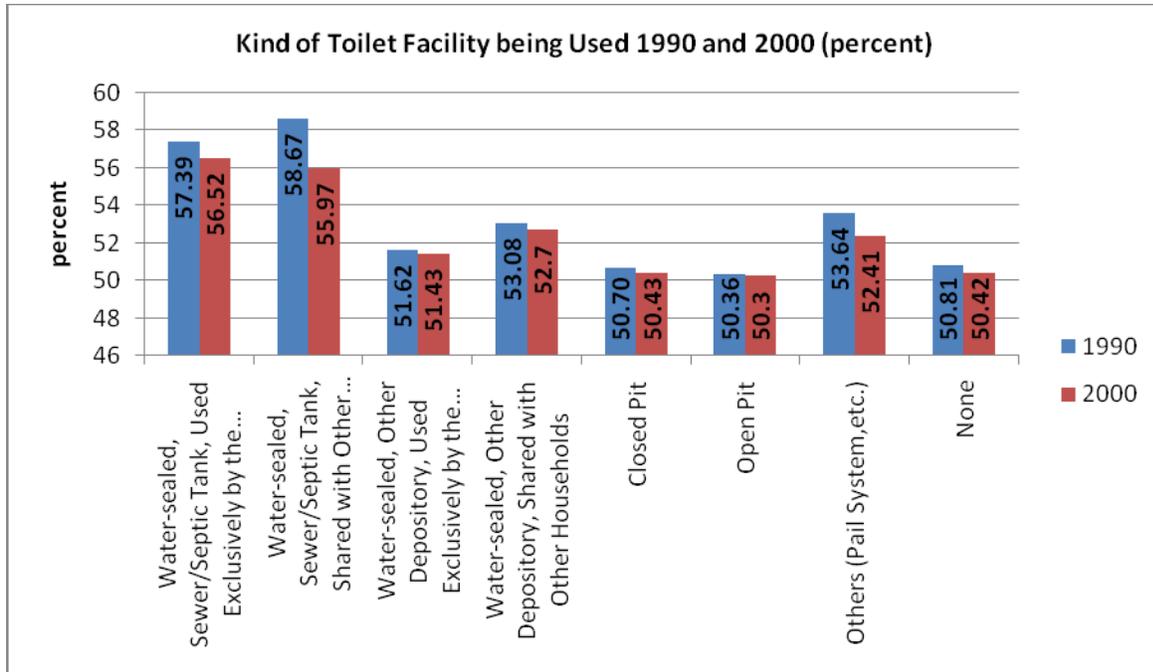
Appendix Figure 7 Main Source of Water Supply for Cooking and Drinking 1990 and 2000



Source: National Statistics Office

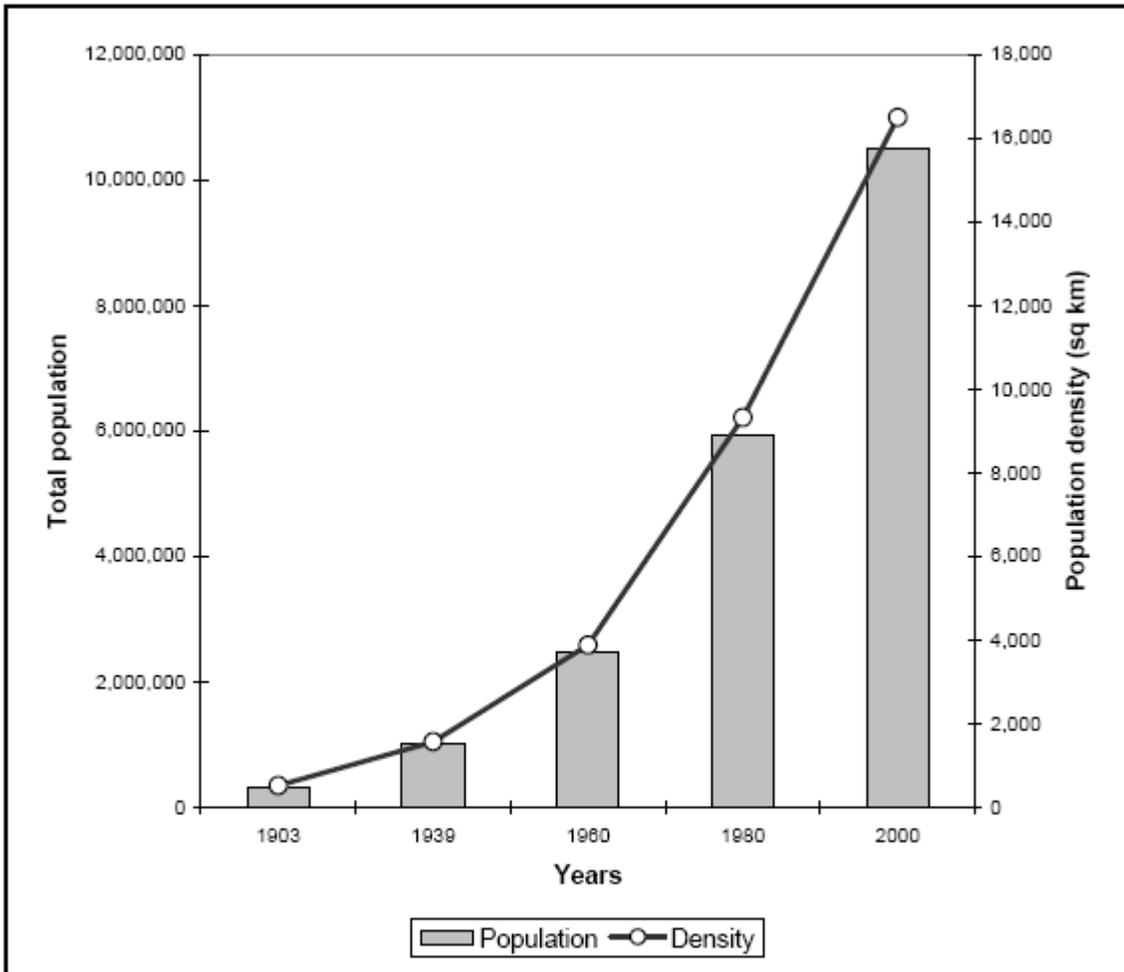
Note: No 1990 data available for Bottled Water and Others

Appendix Figure 8 Kind of Toilet Facility being Used 1990 and 2000 (percent)



Source: National Statistics Office

Appendix Figure 9 Population Data for Metro Manila 1903-2000

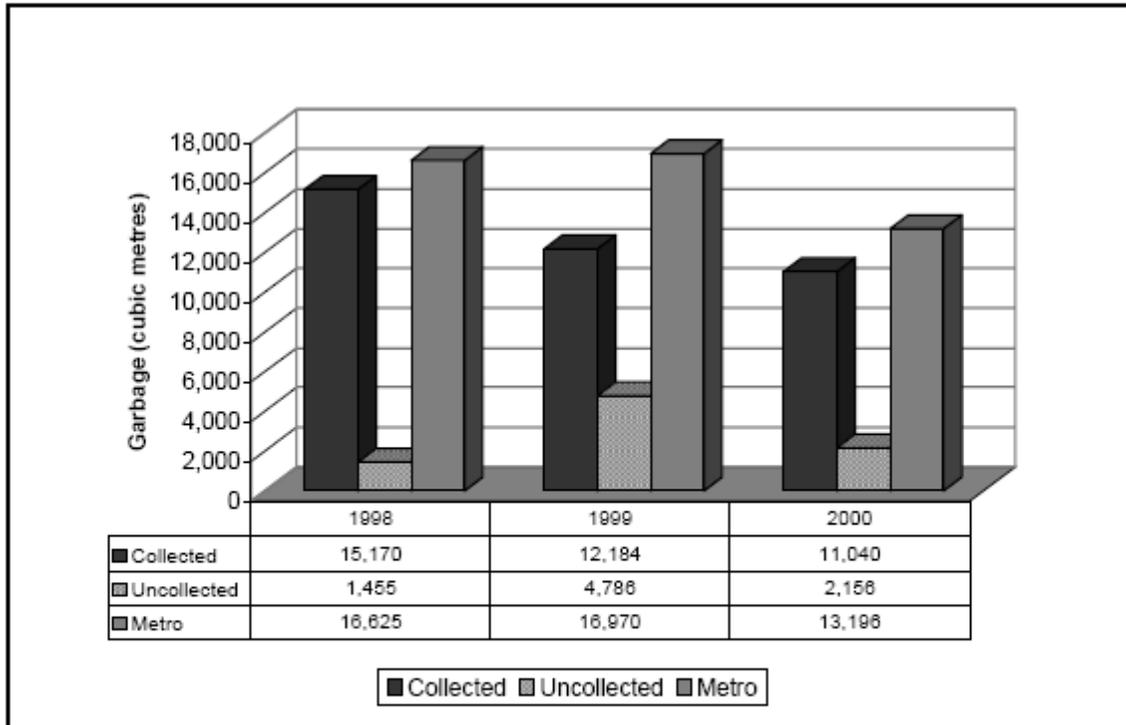


**Figure 3** Population data for Metro Manila, 1903–2000

Sources: Zoleta-Nantes, 2000: 41; OCD, 2000b.

Source: Bankoff, G. (2003). Constructing Vulnerability: The Historical Natural and Social Generation of Flooding in Metropolitan Manila. *Disasters*. Vol. 27 (3). 95-109.

Appendix Figure 10 Accumulated garbage recorded at NCR pumping stations, 1998-2000



**Figure 4** Accumulated garbage recorded at NCR pumping stations, 1998-2000

Source: MMDA, n.d./c.

Source: Bankoff, G. (2003). Constructing Vulnerability: The Historical Natural and Social Generation of Flooding in Metropolitan Manila. *Disasters*. Vol. 27 (3). 95-109.