

Philippine Institute for Development Studies Surian sa mga Pag-aaral Pangkaunlaran ng Pilipinas

Metro Cebu: A Metropolitan Area in Need of Coordinative Body

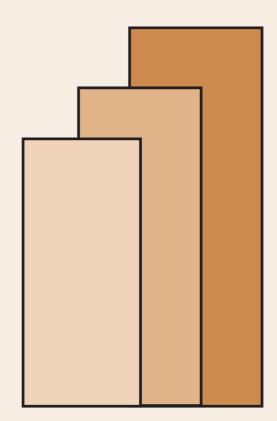
Glenda R. Gonzales

DISCUSSION PAPER SERIES NO. 2004-49

The *PIDS Discussion Paper Series* constitutes studies that are preliminary and subject to further revisions. They are being circulated in a limited number of copies only for purposes of soliciting comments and suggestions for further refinements. The studies under the *Series* are unedited and unreviewed.

The views and opinions expressed are those of the author(s) and do not necessarily reflect those of the Institute.

Not for quotation without permission from the author(s) and the Institute.



December 2004

For comments, suggestions or further inquiries please contact:

The Research Information Staff, Philippine Institute for Development Studies

3rd Floor, NEDA sa Makati Building, 106 Amorsolo Street, Legaspi Village, Makati City, Philippines Tel Nos: 8924059 and 8935705; Fax No: 8939589; E-mail: publications@pidsnet.pids.gov.ph

Or visit our website at http://www.pids.gov.ph

Metro Cebu: A Metropolitan Area in Need of Coordinative Body

A Case Study done under the POPCOM-PIDS Population, Urbanization and Local Governance Project.

Glenda R. Gonzales in collaboration with Region 7 Population Commission Funded by the UNFPA

Table of Contents

List of Tables List of Figures Abstract Executive Summary	
1.0. Introduction	8
2.0. The Urbanization of Metro Cebu	10
2.1. The Ceboom Phenomenon2.2. Metro Cebu Now	10 10
3.0 Demography	12
3.1 Population Size3.2 Population Composition3.3 Population Distribution3.4 Population Programs	12 14 15 16
4.0 Government Responses to the Challenges and Opportunities	18
4.1 Improving Efficiency and Effectiveness of Service Delivery	18
 4.1.1 Health Services 4.1.2 Educational Services 4.1.3 Transport and Traffic Management 4.1.4 Housing Services 4.1.5 Solid Waste Management and Waste Disposal 4.1.6 Water Supply 	18 20 22 24 24 25
4.2 Increasing Infrastructure Through the Metro Cebu Development Project	26
4.3 Improving Resource Generation	27
4.4 Improving Resource Allocation	28
4.5 Coming Together to Form a Metropolitan Structure	30
5.0 Conclusions and Recommendations	32
6.0 Bibliography	33

Table No.	Title	Page
Table 1.	Population of Metro Cebu, 1970, 1980, 1990, 1995 and 2000.	12
Table 2.	Population: Metro Cebu, Cebu Province, Region 7 and Philippines, 1970, 1980, 1990, 1995 and 2000.	12
Table 3.	Intercensal and Annual Population Growth Rate, 1970-80, 1980-90 and 1990-2000.	13
Table 4.	Migration Characteristics by City, 2000.	14
Table 5.	Vital Statistics: Cebu, Mandaue and Lapulapu Cities and Cebu Province, 2000.	14
Table 6.	Population Growth Rate and Density: Metro Cebu, Cebu Province, Region 7 and Philippines. 2000.	16
Table 7.	Urban-Rural Composition of Metro Cebu.	16
Table 8.	Number of Male and Female Sterilization as Method of Family Planning in Lapulapu City, 1998-2002.	17
Table 9.	Percent of Health Facility in Metro Cebu, 2000.	18
Table 10.	Population-Health Professional Ratio, 2000	19
Table 11.	Crude Death Rate per City (per 1000 population). 1997-2002	20
Table 12.	Maternal Mortality Rate per City (per 1000 population). 1997-2002	20
Table 13.	Infant Mortality Rate per City (per 1000 population). 1997 to 2002.	20
Table 14.	Percent of Barangays with Educational Facilities; Cebu Province, Metro Cebu; 1990 & 2000	20
Table 15.	Actual and Additional Number of Teachers, Classrooms and Armchairs Needed by City, SY 2002-2003	21
Table 16.	Average Class Size SY 2002-2003	21
Table 17.	Retention Rates by City, School Years 1998-1999 to 2002-2003	21
Table 18.	Comparative Literacy Rate by City, Region, National; 2000	22
Table 19	Percent of Population 20 years and older, by Highest Educational Attainment in Metro Cebu, 1990 and 2000	22

LIST OF TABLES

Table 20	Past and Future Traffic Demand in Metro Cebu, 1979-2010	23
Table 21	Motor Vehicle Registration in Metro Cebu. 1993 to 1999	23
Table 22	Percent of Households, By Mode of Garbage Disposal in Metro Cebu, 2000	24
Table 23	Source of Drinking Water: Metro Cebu. 1990 and 2000	25
Table 24	Local Revenue From Local Sources. Cebu City, Lapu- lapu City, Mandaue City. 2000 and 2001.	27
Table 25	Tax Collection Efficiency, Lapulapu City, 2001-2002 (in million pesos)	28
Table 26	Expenditures Per Sector Cebu, Lapulapu, Mandaue Cities, 1996–2000	29

LIST OF FIGURES

Table No.	Title	Page
Figure 1.	Map of Metro Cebu	8
Figure 2.	Population Age Structure of Metro Cebu	15

ABSTRACT

Urbanization and rapid increase in population in Metro Cebu brought about increased demand for basic services and infrastructure. The creation of the Metro Cebu Development Council comprising of the four (4) cities and six (6) municipalities in the eastern part of the Cebu Province, as an organizational structure, attempts to address these problems. However, services that require areas larger than a local jurisdiction for cost-effective provisioning like water supply, garbage disposal and solid waste management are still a problem. The same is true for services like public health and basic education whose benefits and costs accrue to non-residents of a local jurisdiction. Financial sustainability of the MCDC is at also risk because it is donor-driven or its budget is tied with the funds coming from its partner agencies. A more permanent and solid body that will look closely at the various needs of Metro Cebu for a more efficient delivery of basic services is much needed. Also a body in terms of financial capability, like a metropolitan development authority, should be established to address the current and future urbanization and population growth problems.

Keywords: Metropolitan arrangements, Metro Cebu, Metro Cebu Development Council

EXECUTIVE SUMMARY

Metro Cebu, the second international gateway and the second largest urban area in the Philippines, is an example of a metropolitan area with a rapid growing population and increasing urbanization. It is the economic, trading and educational center of the central and southern Philippines, besides developing as a distribution relay hub and a tourist area.

Second only to Metro Manila, with 7,929,000 population in 2000, Metro Cebu has a total population of 1,693,881, a 426,962 increase from the 1990 census of population of 1,266,919. Metro Davao (Davao City, Panabo and Sta. Cruz) is third with 1,346,710. In 1970, Metro Cebu's population was only 654,289 and it is projected to reach 2.3 million by year 2010.

Metro Cebu, with its 4 cities and 6 municipalities, has an approximate total land area of 74,209 hectares. With Metro Cebu's 1,693,881 population, this number comprises almost half of the entire province of Cebu, but only 14% of its land area. Its population density is 2,351.0125 persons per square kilometer up from 1,756 during the 1990 census. This translates to a 33.9% increase in its population density. The four cities namely Cebu, Mandaue, Lapu-lapu and Talisay have the largest population share.

In the 1960 census of population and housing, Metro Cebu's population was just nearing its half a million mark at 462,622. In 1980, this number was doubled reaching 945,258, close to a million population. Immediately after, around the late 80's to early 90's, economies of most countries liberalized and adopted strong policies of finance and investment deregulation. Metro Cebu stands out as one of the major local sites of foreign investments in manufacturing and of foreign and domestic partnerships in real estate. The influx of manufacturing industries, foreign investors and real estate developers, establishment of schools, medical and regional centers brought about an increase in population resulting from a high rate of natural increase and significant internal migration. It was around this time that Metro Cebu reached its one million mark that established them as a Metropolitan Area. In the 1990 census of population, Metro Cebu has already 1,266,919 population with Cebu City owning half of the total at 604,407. Now Metropolitan Cebu or Metro Cebu is as well known domestically and internationally as Metro Manila.

The urbanization and increased population of Metro Cebu brought about increased demand for basic services and infrastructure. In addressing this problem, efficient and effective local governance is much needed. Generally, Metro Cebu can provide the basic services needed to its constituents especially the top three cities of Cebu, Lapulapu and Mandaue. The problem lies with the prioritization of these services they are providing. Housing service in Cebu and Mandaue is among the least prioritized. The impact of this can be seen from the number of slum areas and makeshift houses present in the area.

The Central Visayas Regional Development Council embarked in a project called the Metro Cebu Development Project (MCDP) funded by the Japan Government. The MCDP addressed the traffic management and congestion of Metro Cebu through increased infrastructure mainly the expansion of existing roads, construction of new roads and the establishment of a bus terminal and public markets. However, services that require areas larger than a local jurisdiction for cost-effective provisioning like water supply, garbage disposal and solid waste management are still a problem. Except in the City of Cebu, there is no sanitary landfill in the other cities and municipalities of Metro Cebu. Developing and maintaining a sanitary landfill is very expensive, but this problem could be addressed through LGU-cooperation as economies of scale are achieved. This is also true for the solid waste treatment plant which is not present in Metro Cebu. Water supply in Metro Cebu also needs to be addressed. A strong and more organized metropolitan body that will handle water resource management is much needed. The same is true for services like public health and basic education whose benefits and costs accrue to non-residents of a local jurisdiction.

Triggered by the end of MCDP, Metro Cebu adopted the metropolitan development council as their organizational structure to solve the growing problems of garbage disposal, drainage, traffic management, and the delivery of other basic urban services in Metro Cebu. However, financial sustainability of the MCDC is at risk because it is donor-driven or its budget is tied with the funds coming from their partner agencies. A more permanent and solid body in terms of financial capability should be establish to address the current and future urbanization and population growth problems.

A metropolitan development authority is an attractive structure in view of its relative institutional permanence, greater corporate powers and functions and fiscal advantage. From the experience of the Metro Manila Development Authority (MMDA), under Section 10 of RA 7924, they are appropriated the amount of one billion pesos as initial budget for its operation and thereafter, annual expenditures is provided for under the General Appropriations Act. Also, since a metropolitan development authority is more of a technocratic organization than a political body, decision-making is de-politicized.

1.0 Introduction

A metropolitan area is a large urban settlement with at least 1 million population and its geographical area usually extends across several local government boundaries (Manasan & Mercado, 2002). Metro Cebu, the second international gateway and the second largest urban area in the Philippines, is an example of a metropolitan area with a rapid growing population and increasing urbanization. It is the economic, trading and educational center of the central and southern Philippines, besides developing as a distribution relay hub and a tourist area.

Second only to Metro Manila, with 7,929,000 population in 2000, Metro Cebu has a total population of 1,693,881, a 426,962 increase from the 1990 census of population of 1,266,919. Metro Davao (Davao City, Panabo and Sta. Cruz) is third with 1,346,710. In 1970, Metro Cebu's population was only 654,289 and it is projected to reach 2.3 million by year 2010.

Metro Cebu has an approximate total land area of 74,209 hectares. With Metro Cebu's 1,693,881 population, this number comprises almost half of the entire province of Cebu, but only 14% of its land area. About half of Metro Cebu's population and land area are in Cebu City which has historically been commercial and service center of the Visayas and Northern Mindanao regions, as well as the home base of the country's major shipping companies. Metro Cebu is in the eastern part of the Cebu Province, strategically located in the heart of the Philippine Archipelago. It lies 365 miles south of Manila and can be accessed through numerous ports and an international airport.



Metro Cebu has no clear definition of the cities and municipalities comprising it. Its development has been carried on without a formal inter-local government structure and has been driven forward primarily through the various regional projects implemented in the area. Most institutions define Metro Cebu according to the scope of their projects. In 1983, the Central Visayas Regional Project (CVRP) has defined Metro Cebu as a planning area comprising of the 4 cities of Cebu, Mandaue, Lapu-lapu and Talisay and (5) municipalities of Lilo-an, Consolacion, Cordova, Minganilla, and Naga. But in 1994, the Cebu Integrated Area Development Master Plan Study (CIADMPS) redefined Metro Cebu to include the municipality of Compostela. The CVRP later became the Metro Cebu Development Project but excluded the four municipalities of Liloan, Compostela, Minganilla and Naga in its development projects. (Mercado, 2002).

In December 1997, the creation of a development council was passed by the Regional Development Council (RDC) to implement and monitor projects in Metro Cebu that comprises the four cities of Cebu, Mandaue, Lapulapu and Talisay and the six municipalities of Lilo-an, Consolacion, Cordova, Minganilla, Compostela and Naga. (Mercado, 2002). The Metro Cebu Development Council (MCDC), realizing that a more permanent body is needed to look into the various development needs of Metro Cebu, later proposed in one of its meeting the creation of a development authority which until now is pending at the House of Representatives and the Senate.

This paper will discuss Metro Cebu's urbanization process in terms of population growth and economic development. Briefly, it will describe the demographic characteristics in terms of population size, composition and distribution and the population programs being done in the area. The next section will discuss the urbanization's advantages and how the local government units are harnessing and enhancing these positive impacts as well as the urbanization's disadvantages and how they are responding to these. However, because of the unavailability of data for the whole Metro Cebu as there is no one body that consolidates data for the 10 LGUs, the Cities of Cebu, Lapu-lapu and Mandaue will be mostly highlighted in this paper.

2.0 The Urbanization of Metro Cebu

Cebu was among the slowest growing province in the country before the 1970's. Its growth rate improved only after the Cebu City population core expanded into the broader Metro Cebu (Zosa et al, 2004). Now Metropolitan Cebu or Metro Cebu is as well known domestically and internationally as Metro Manila. Since the early eighties, regional plans refer to Metro Cebu as the principal urban settlement of the Central Visayas Region. Its pre-eminence over the rest of the areas in the region has been attributed to its rapid economic growth in the late 80's and early 90's that brought about an increase in population resulting from a high rate of natural increase and significant internal migration.

2. 1 The Ceboom Phenomenon

In the 1960 Census of Population and Housing, Metro Cebu's population was just nearing its half a million mark at 462,622. In 1980, this number was doubled reaching 945,258, close to a million population. Immediately after, around the late 80's to early 90's, economies of most countries liberalized and adopted strong policies of finance and investment deregulation. This global environment allowed the free flow of foreign capital investments into manufacturing, and into related fields of finance, insurance, banking and real estate businesses to enter into countries like the Philippines. This made Metro Cebu to stand out as one of the major local sites of foreign investments in manufacturing and of foreign and domestic capital partnerships in real estate. Metro Cebu also became one of the country's major receptacles of foreign governments' assistance for infrastructure development after the downfall of the Marcos Administration. (Sajor, 2001)

At the end of 1996, there were a total of 323 Board of Investments (BOI) and Mactan Export Processing Zone-Operating Manufacturing Establishments in Metro Cebu. (Israel 1997) These influx of manufacturing industries, foreign investments and other economic activities attracted workers and migrants from nearby municipalities and provinces seeking greener pasture. Metro Cebu offered an alternative for people yearning to go to Metro Manila. Schools, hospitals and medical centers were also established that attracted students to finish their tertiary education in the area. It was around this time that Metro Cebu reached its one million mark that established them as a Metropolitan Area. In the 1990 census of population, Metro Cebu has already 1,266,919 population with Cebu City owning half of the total at 604,407.

2. 2 Metro Cebu Now

In 2004, exports growth rate in the past five years is close to 20%. The number of weekly commercial flights at the Mactan-Cebu international airport is 525 and daily passengers traffic at the airport is 6,500 (Peyra, 2004). To date, shipping is one of the chief industries in Metro Cebu. It is the country's busiest port and base to over 80 % of inter-island shipping capacity – with its numerous ports servicing 44 local shipping lines and 13 international carriers. Most of the domestic shipping companies in the Philippines have their central offices in Cebu City. Foreign container traffic for the Port of Cebu averaged 12% yearly growth from 1996 to 2000. Ship calls are up 6% a year, while passenger traffic averages almost 13 million annually. All the major international couriers operate in Cebu. Regular direct international flights are available to key Asian cities. Domestic flights are

available practically to all Philippine cities. Tourism, as Metro Cebu has become the top destination of foreign tourists, has also become a major source of growth of its economy. Its modern shipping facilities provide access to other tourist destinations in nearby islands. (Peyra 2004)

Along with its 1,693,881 population in 2000, Metro Cebu has the highest concentration of major hospitals, educational and medical training services. It is also gold mine for malls, restaurants, and service and leisure establishments outside of Metro Manila.

3.0 Demography

Much of the demographic data in this paper came from a study done by Anthony R. Zosa et al, entitled "Cebu: A Demographic and Socioeconomic Profile Based on the 2000 Census" in February 2004. The study deeply described Metro Cebu's population size, composition and distribution.

3.1 Population Size

Metro Cebu, with its 4 cities and 6 municipalities, has an enumerated population of 1,693,881 in 2000, 94% of whom reside in urban barangays. The four cities namely Cebu, Mandaue, Lapu-lapu and Talisay have the largest population share with Cebu City contributing almost half the entire population of Metro Cebu at 42.4%.

City/	Popula	tion	Popula	tion	Popula	tion	Populati	ion	Population	
Municipality	197	0	198	0	1990		1995		2000	
	Number	%	Number	%	Number	%	Number	%	Number	%
Cebu	348,163	53.2	490,281	51.9	604,407	47.7	654,839	46	718,821	42.4
Mandaue	58,579	9	110,590	11.7	179,753	14.2	194,290	13.7	259,728	15.3
Lapu-lapu	69,268	10.6	98,723	10.4	145,627	11.5	173,109	12.2	217,019	12.8
Talisay	47,787	7.3	69,720	7.4	97,823	7.7	117,747	8.3	148,110	8.7
Naga	35,043	5.4	45,831	4.8	60,397	4.8	68,953	4.8	80,189	4.7
Minganilla	28,880	4.4	38,504	4.1	50,833	4	60,678	4.3	77,268	4.6
Liloan	22,498	3.4	30,196	3.2	42,523	3.4	50,844	3.6	64,970	3.8
Consolacion	17,602	2.7	27,454	2.9	41,237	3.3	49,200	3.5	62,298	3.7
Cordova	12,538	1.9	16,455	1.7	22,326	1.8	26,553	1.9	34,032	2
Compostela	13,931	2.1	17,504	1.9	21,993	1.7	26,389	1.9	31,446	1.8
Metro Cebu	654,289	100	945,258	100	1,266,919	100	1,422,602	100	1,693,881	100

Table 1. Population of Metro Cebu. 1970, 1980, 1990, 1995 and 2000

Source: Zosa et al. 2004. Cebu: A Demographic and Socio-economic Profile Based on the 2000 Census.

Table 2. Population of Metro Cebu, Cebu Province, Region 7 & Philippines 1970, 1980, 1990, 1995 and 2000

Area	1970	1980	1990	1995	2000
Metro Cebu			1,266,919		1,693,881
*	654,289	945,258		1,422,602	
Cebu Prov	1,228,487	1,490,731	1,855,815	2,064,101	2,377,588
Region 7	3,032,719	3,787,374	4,594,124	5,014,588	5,706,953
Philippines	36,684,486	48,098,460	60,703,206	68,616,536	76,504,077

Sources: Philippine Statistical Yearbook. 2004

* Zosa et al. 2004. Cebu: A Demographic and Socio-economic Profile Based on the 2000 Census.

There are three tools commonly used to describe changes in population size: growth rate; migration trends; and natural increase (rate of natural increase).

Growth Rate

The table below shows that Metro Cebu's growth rate decreased from 3.69 in 1990 to 2.90 in 2000 but still higher than Cebu Province at 2.41 and the country's growth rate at 2.34. Except for

Cebu City and Mandaue City, all the other cities and municipalities' growth rate increased from 1990 to 2000. Cebu City, the hub of economic activity and the center for trade and commerce in the Visayas Region, has the lowest growth rate at 1.73 below the country's growth rate. The deceleration of its population growth rate from 2.13 in 1990 may be attributed to the out-migration of residents to neighboring cities, municipalities or province due to congestion and increased land price. Mandaue City has a population of 259,728 in 2000 and has an annual growth rate of 3.68 in 2000 from 4.91 in 1990. Traditionally, Mandaue City is a favored location for factories and manufacturing firms. Its small land area and dramatic population growth in the past decades had congested the city, driving its land prices up. (Zosa et al, 2004)

The municipalities of Liloan, Cordova, Minganilla, Consolacion and the city of Talisay exhibited a fast population growth rate in 2000 at more than 4.0%. This can be explained because most housing developers extended their projects outside Cebu City, in particular, due to congestion, environmental issues such as protected areas that limit the developer's options to establish housing areas in Cebu City.

					, ,		
City/Municipality	1970	-1980	1980-	-1990	1990-	-2000	
Cebu City	40.24	3.38	23.79	2.13	18.93	1.73	
Compostela	25.43	2.26	25.95	2.31	42.98	3.58	
Consolacion	55.72	4.43	50.45	4.08	51.07	4.13	
Cordova	31.23	2.72	35.7	3.05	52.43	4.22	
Lapulapu City	41.95	3.5	48.11	3.93	49.02	3.99	
Liloan	34.06	2.93	40.99	3.44	52.79	4.24	
Mandaue City	87.85	6.3	63.35	4.91	44.49	3.68	
Minganilla	33.28	2.87	32.07	2.78	52	4.19	
Naga	30.43	2.66	32.15	2.79	32.77	2.83	
Talisay	45.79	3.77	40.41	3.39	51.41	4.15	
Metro Cebu	43.97	3.64	34.5	3.69	33.7	2.9	
Cebu Province	27.64	2.44	26.47	2.35	27.23	2.41	
Region 7 *	24.69	2.25	21.26	1.95	No data	2.19	
Philippines *	31.11	2.75	26.21	2.35	No data	2.34	

Table 3: Intercensal and Annual Population Growth Rate 1970-80, 1980-90, 1990-2000

Sources: Zosa et al. 2004. Cebu: A Demographic and Socioeconomic Profile Based on the 2000 Census. *Philippines Statistical Yearbook, 2004

Migration Trends

As the second largest metro area in the Philippines, Metro Cebu has implications for the migration of highly skilled or professional workers. But for the year 2000, it was a net out-migration area. Zosa et al (2004) stated that it is a common perception that Cebu City and Lapulapu City attract lots of migrants from its neighboring municipalities and surrounding islands due to the presence of economic opportunities in these areas. They further stated that a city can attract migrants but it could also be an area of out migration. Cebu City is host to several universities in the Visayas, which produce skilled graduates for its labor force. Upon entry into the labor force, these professionals may opt to seek employment opportunities outside of the city. This is true as seen in the table below that shows a total of -142.9 net out-migration for males and -122.5 for females in Cebu City. A net out-migration was also seen from Lapulapu City with a net out-migration of -46.4 for males and -7.1 for females. This could be explained by the congestion experienced in Cebu and Lapulapu Cities and by

the high housing prices as private subdivisions continue to sprout in the areas. Mandaue City on the other hand, had a net migration rate of 758.6 for males and 28.61 for females. This can be explained with the number of firms that decided to put up their factories in Mandaue in response to such incentives as lower tax rates as compared to Cebu and Lapulapu Cities (Zosa et al, 2004).

Cities	Male	Female	Migration Characteristics
Cebu City	-142.90	-122.54	Net out
Mandaue City	758.59	28.61	Net in
Lapulapu City	- 46.36	- 7.12	Net out
Metro Cebu	-104.63	-83.24	Net out

Table 4: Migration Characteristics: Cebu, Mandaue and Lapulapu Cities, 2000

Source: Zosa et al. 2004. Cebu: A Demographic and Socioeconomic Profile Based on the 2000 Census.

Rate of Natural Increase (Natality and Mortality)

Cebu City in 2000 had a natural increase (births – deaths) of 14, 723 and a rate of natural increase (CBR – CDR) of 19.99. This supported its low population growth rate at 1.73. Lapulapu City had a natural increase of 5,593 and a rate of natural in crease at 26.85. This was close to Mandaue City's high natural increase and rate of natural increase at 5,107 and 25.22 respectively.

Although Lapulapu City was a net out migration area, its rate of natural increase was rather high that its population growth rate reached 3.99, far higher than Cebu Province. For Mandaue City, its population growth rate at 3.68 was contributed both by the net in-migration and rate of natural increase.

City	CBR	CDR	MMR	IMR	Total Deaths	Live Birth	Natural Increase (Rate of Natural Increase)
Cebu	26.16	6.17	0.78	15.26	4,542	19,265	14,723 (19.19)
Lapulapu	31.28	4.43	0.77	10.44	922	6,515	5,593 (26.85)
Mandaue	29.78	4.56	0.17	18.57	923	6030	5,107 (25.22)
Cebu Province	23.91	3.88	0.49	10.81	7,276	44,703	37,427 (20.03)

Table 5: Vital Statistics, Cebu, Lapulapu and Mandaue City, 2000 (per 1,000 population)

Source: Department of Health Region 7. FHSIS Vital Statistical Report. 2002.

3.2 Population Composition: Sex Ratio, Median Age and Age-Dependency Ratio

To describe the past and present fertility pattern of the population, the population pyramid is shown below. It suggests that Metro Cebu with a modal value of 4.1 years reflected a young population in 2000. As a result of high fertility in the past, age group 15 to 24 exhibited a large number of the population with females outnumbering the males. This age group can be the result of immigrating young persons in search of education or jobs. Its median age is 22 which means half of the population have ages 22 and below.

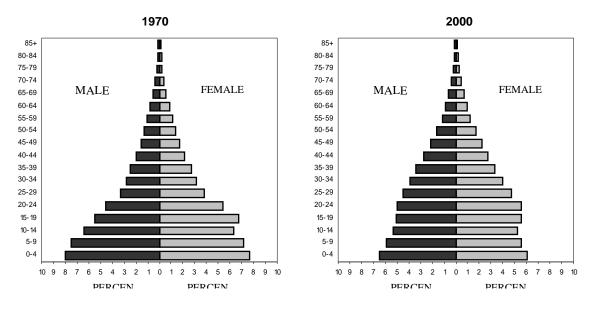


Figure 2. POPULATION AGE STRUCTURES OF METRO CEBU

Source: Zosa et al. 2004. Cebu: A Demographic and Socioeconomic Profile Based on the 2000 Census.

In 2000, Metro Cebu's sex ratio was 97.26, lower than the regional and national figures of 101 and 100 respectively. Age-dependency ratio was 64.17, also lower than regional and national figures of 71.2 and 69 respectively.

3.3 Population Distribution

Population distribution can be described by its density, rural–urban composition and crowding. Since data on the number of rooms per household is unavailable, population density and the rural – urban composition will only be discussed.

Population Density

The table below shows the density of Metro Cebu in 2000. Metro Cebu's population density was 2,351 persons per square kilometer up from 1,756 during the 1990 census. This translates to a 33.9% increase in its population density from 1995. Cebu City, with the largest estimated land area, was densely populated. This could be explained with Cebu City's mountainous areas that people tend to crowd in the flat area. Cebu City has a flat area of less than 30% of its estimated land size. (Asia Urban Information Center of Kobe Website). Mandaue City had the highest density at 8,707 persons per sq. kilometer. Estimated land area for Mandaue City is only 29.83 square kilometer, second smallest land area in Metro Cebu, and still its population growth rate is at 3.68. Talisay City, the fourth densest City, had only 47.39 sq kilometer land area but its annual growth rate in 2000 is 4.15, far higher than Metro Cebu and Cebu Province. Cordova, south of Lapulapu City, had the smallest land area with only 10.11 sq kilometer but its population growth rate was at 4.22 in 2000 that explained it being the third densest area in Metro Cebu.

City/	Population 2000	Annual Growth	Estimated Land	Density (persons
Municipality		Rate (2000)	Area (sq.km)	per sq.km) 2000
Cebu City	718,821	1.73	284.90	2,523
Mandaue City	259,728	3.68	29.83	8,707
Lapu-lapu City	217,019	3.99	60.60	3,581
Talisay City	148,110	4.15	47.39	3,125
Naga	80,189	2.83	96.50	831
Minganilla	77,268	4.19	50.48	1,531
Liloan	64,970	4.24	55.21	1,177
Consolacion	62,298	4.13	33.78	1,844
Cordova	34,032	4.22	10.11	3,366
Compostela	31,446	3.58	51.69	608
Metro Cebu	1,693,881	2.90	720.49	2,351
Cebu Province	3,356,137	2.41	4,836.91	694
Region 7*	5,706,953	2.19	15,875	359
Philippines*	76,504,077	2.34	300,000	255

Table 6: Population Growth Rate and Density of Metro Cebu, Cebu Province, Region 7 and Philippines. 2000

Sources: Zosa et al. 2004. Cebu: A Demographic and Socioeconomic Profile Based on the 2000 Census. *Philippines Statistical Yearbook, 2003

Rural Urban Composition

In 2000, Metro Cebu's urban area had a population density of 3,071 persons/sq.km as compared to the rural areas that only had 489 persons/sq kilometer. The table below also suggests that rural population was decreasing as urban population increased.

	2000 Population						
	1970-1980		1980)-1990	1990-2000		Density
							(persons/sq km)
Metro Cebu	43.97	3.64	34.50	2.96	33.70	2.90	2351.1
Urban	44.75	3.70	34.66	2.98	40.13	3.37	3070.8
Rural	37.45	3.18	33.11	2.86	-23.36	-2.66	489.4

Table 7. Urban-Rural Composition of Metro Cebu

Source: Zosa et al. 2004. Cebu: A Demographic and Socioeconomic Profile Based on the 2000 Census.

3.4 Population Programs

Although Metro Cebu was a net out-migration area, its population growth was still increasing due to its high rate of natural increase, as evidenced by the high crude birth. This also brought about a young population with females outnumbering the males. With these, population programs should lean towards improving programs on child health and women's health particularly reproductive health.

Population programs in Metro Cebu are administered primarily by the Regional Commission on Population located in Cebu City. It is a national government agency responsible for the overall coordination, policy making and monitoring of the Philippine Population Management Program (PPMP). For the City of Cebu, the Cebu City Health Office is undertaking 90% of the health services component of the population management mainly through Family Planning and Reproductive Health. The City Health Office dispenses free Family Planning commodities, which are distributed to health centers in all the city's 77 barangays. Aside from the government agencies, there are numerous NGOs in Metro Cebu catering to family planning and reproductive health needs of its populace.

Last July 8 2004, the Metro Cebu Community Advocacy Network for Family Planning and Reproductive Health composed of the different urban poor groups and community associations was launched. Recognizing that the barriers on the implementation of population management and family planning are lack of support from the local officials, lack of information for the people, service delivery gaps and opposition from the Church, the network aims to bring other urban poor communities and informal sector organizations into family planning advocacy and to intensify the information dissemination on family planning. (Freeman, July 2004)

Lapulapu City's Family Planning

It is interesting to note that in Lapulapu City, the number of female sterilization was becoming a popular method of family planning compared to Cebu and Mandaue Cities which had no record of female (and male) sterilization from 1998 to 2002.

Lapulapu City	2002	2001	2000	1999	1998
New Acceptors	42	43	0	62	12
Male	3	0	0	0	1
Female	39	43	0	62	11
Current Users	146	94	84	199	71
Male	4	4	0	19	1
Female	142	90	84	180	70

Table 8: Number of Male and Female Sterilization as a Method of Family Planning in Lapulapu City, 1998-2002.

Source: DOH Region 7. FHSIS Annual Consolidation Table.

4.0 Government Responses to the Challenges and Opportunities

Metro Cebu's increased growth and rapid urbanization have advantages and disadvantages. As its urbanization continues to proceed, cities and municipalities are better able to capture the benefits of economies of scale. Urbanization also provides opportunity for the local government to raise per capita local source revenues (increase source of finance). But urbanization and increased population can also bring certain challenges to the local government. Among these are increased demand for infrastructure and delivery of basic services.

4.1 Improving Efficiency and Effectiveness of Service Delivery

4.1.1 Health Services

Metro Cebu's increase in population means an increase in people seeking health services. One way to measure the local government's effort in addressing this problem is by looking at the number of health facilities and health professionals present in the area.

Health Facilities/Stations

In 2000, the number of health facilities, including hospitals, puericulture centers and barangay health stations, covered 90.80% of the total area of Metro Cebu. This suggested that the local governments were attempting to cover if not all areas in their jurisdiction. Liloan and Talisay had health facilities present in all their barangays (100%) while Cebu City had two (2) barangays with no health facility (97.5% covered). This could be explained by the upland (mountainous) barangays of Cebu City in which a health facility is hard to put up.

	.
City/Municipality	% of coverage
Cebu City	97.5
Mandaue City	92.6
Lapulapu City	93.3
Talisay City	100
Naga	82.1
Minganilla	84.2
Liloan	100
Consolacion	90.5
Cordova	76.9
Compostela	64.7
Metro Cebu	90.80%

*Health Facilities include hospitals, puericulture centers and BHS

Source: Zosa et al. 2004. Cebu: A Demographic and Socioeconomic Profile Based on the 2000 Census.

As of 2003, Metro Cebu has a total of 13 government hospitals. Six are primary hospitals, five are secondary hospitals and two are tertiary. These two tertiary hospitals are located in Cebu City. All these government hospitals comprise 45% of all the government hospitals in Cebu Province and 49% of all in Region 7. (DOH Region 7 List of Government Hospitals. 2003)

Health Manpower

Another way to measure Metro Cebu's effort in addressing the need for an increase in the demand for health services is to see the number of health professionals supplied in each area. Department of Health's national standard for the number of government doctor and nurse per population is 1:20,000, while the national standard for government midwife per population ratio is 1:5,000. Supply of government nurses was adequate in the three cities of Cebu, Mandaue and Lapulapu. For government doctors, Lapulapu and Mandaue cities were inadequate while Cebu City had an adequate supply.

Area	Gov't. Doctors	Gov't. Nurses	Gov't. Midwives
Cebu	1:13893	1:11505	1:20454
Lapulapu	1:26036	1:6943	1:5341
Mandaue	1:25309	1:5785	1:4602
Region 7	1:24813	1:14303	1:4050
Philippines	1:25995	1:16195	1:4650

Table 10: Health Professional-Population Ratio, 2000

Source: FHSIS, Department of Health Region 7

Health Indicators

Mortality rate is an easy measure to see how well Metro Cebu's efforts are. Note however that factors which may affect the level of this rate include age and sex composition of the population, health seeking behavior of the population, availability of health services, adverse environmental and occupational conditions, and the peace and order conditions in the area.

Crude death rates for Cebu and Lapulapu Cities were higher than the regional figure in 2002. Cebu City's CDR continued to increase from 1997 to 2002. From 2000 to 2002, CDR for Mandaue and Lapulapu were also increasing. The table below shows trends of CDR from 1997 to 2002.

City	1997	1998	1999	2000	2001	2002
Cebu	4.82	4.89	4.48	6.17	6.34	6.52
Lapulapu	4.67	3.29	5.06	4.43	5.2	6.25
Mandaue	3.74	3.83	4.20	4.56	4.59	4.55
Region 7	4.43	4.24	4.31	4.32	3.78	4.81

Table 11. Crude Death Rate per City. 1997 to 2002 (per 1000 population).

Source: Department of Health Region 7, FHSIS Vital Statistical Report 1997-2002

Cebu City's maternal mortality rate showed an increasing trend from 1997 to 2002. This gives Cebu City the highest maternal mortality rate at 1.6 in 2002 compared to Lapulapu City, Mandaue City and Region 7.

City	1997	1998	1999	2000	2001	2002
Cebu	0.24	0.51	0.89	0.78	1.31	1.6
Lapulapu	0.72	0.17	0.33	0.77	0.57	0.29
Mandaue	0.22	0.41	-	0.17	0.29	0.15
Region 7	0.61	0.48	0.5	0.6	0.68	0.61

Table 12. Maternal Mortality Rate per City. 1997 to 2002. (per 1000 population)

Source: Department of Health Region 7, FHSIS Vital Statistical Report 1997-2002

Infant mortality rate in Cebu and Lapulapu Cities in 2002 were higher than the regional IMR at 11.63 per 1000 population. Mandaue's IMR showed a decreasing trend from 19.9 in 1997 to 11.22 in 2002. It also exhibited a lower rate compared to the regional rate in 2002.

Table 13. Infant Mortality Rate per City. 1997 to 2002. (per 1000 population)

				_		
City	1997	1998	1999	2000	2001	2002
Cebu	19.66	17.4	5.07	15.26	17.44	16.99
Lapulapu	14.73	10.83	36.68	10.44	9.39	19.31
Mandaue	19.9	16.26	17.72	18.57	16.07	11.22
Region 7	15.1	13.56	12.14	13.4	10.91	11.63

Source: Department of Health Region 7, FHSIS Vital Statistical Report 1997-2002

Factors that may have contributed to higher rates in CDR, MMR and IMR compared to the regional figures may be attributed to the unavailability of public health services in the area, inadequate health manpower and facilities and the health seeking behavior of the population.

4.1.2 Educational Services

Metro Cebu attracted migrants, workers as well as students with its rapid urbanization. Educational inputs therefore like school buildings, teachers, classrooms, school facilities and textbooks should also be increased to ensure adequate and quality education.

Educational Inputs

Although there was an increase in school facilities from 1990 to 2000, its number was still inadequate. Only 81% of the barangays in Metro Cebu had primary schools and 42% had secondary schools in 2000.

Educational		Cebu Provin	ce	Metro Cebu				
Facility	1990	2000 % change		1990	2000	% change		
Elementary	77.5%	83%	5.40%	76.7%	80.8%	4.10%		
High School	17.5%	27.5%	10.00%	26.3%	42.4%	16.10%		

Table 14. Percent of Barangays w/ Educational Facilities; Cebu Province, Metro Cebu; 1990 & 2000

Source: Cebu: A Demographic and Socioeconomic Profile Based on the 2000 Census.

As of school year 2002-2003, teachers, classrooms and armchairs in the cities of Cebu, Lapulapu and Mandaue were inadequate both for the primary and secondary level (DECS Region 7). In Cebu City alone, 193 teachers were needed for its secondary schools. More than 200 hundred

classrooms were needed in its primary and secondary schools. For armchairs, Cebu City needed an additional 11,635 in its secondary schools and 5,969 for its primary schools.

	Teachers			Classrooms				Armchairs				
City	Eleme	entary	Seco	ndary	Eleme	entary	Seco	ndary	Eleme	entary	Seco	ndary
	Actual	Needed	Actual	Needed	Actual	Needed	Actual	Needed	Actual	Needed	Actual	Needed
Cebu	2534	4	1037	193	2039	239	553	243	55038	5969	27302	11635
Lapulapu	778	57	359	140	737	94	238	166	17459	6236	14664	2362
Mandaue	709	44	259	98	662	81	226	86	19623	788	10866	1629

Table 15. Actual & Additional No. of Teachers, Classrooms and Armchairs Needed SY 2002-2003.

Source: DECS Region 7. Annual Report

Education indicators

Given the educational inputs supplied by the local governments of Cebu, Lapulapu and Mandaue Cities, their average class sizes for the secondary level were lower than the regional average of 69 for school year 2002-2003. However, average class sizes for the elementary level were higher than the regional class size of 43.

City	Elementary	Secondary
Cebu	47	54
Lapulapu	50	64
Mandaue	53	67
Regional Average	43	69

Source: DECS Region 7. Annual Report

For the same school year, retention rates were higher than the national rates for both the primary and secondary levels. Only the elementary levels of Cebu and Mandaue Cities had an increasing trend in its retention rates from 1998 to 2003.

Table 17: Retention Rates by City, School Years 1998-1999 to 2002-2003

Elementary									
City	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003				
Cebu	90.46	95.07	93.56	95.93	96.97				
Lapulapu	94.27	95.11	96.14	96.15	95.19				
Mandaue	93.24	93.54	93.88	94.72	97.3				
Philippines*	69.75	69.29	67.18	67.13	69.8				
	Secondary								
Cebu	91.38	86.48	91.76	90.46	88.65				
Lapulapu	100	90.89	92.21	91.63	92.78				
Mandaue	92.23	85.61	90.39	88.16	93.11				
Philippines*	71.25	71.02	73.05	73.16	65.84				

Sources: DECS Region 7. Annual Report

*Philippine Statistical Yearbook 2004

Performance Indicators

Achievement Test Score. The achievement level of public elementary schools in Cebu, Lapulapu, Mandaue Cities and in Region 7 is measured by the performance in the Regional Achievement Test (RAT). In the elementary level, Lapulapu City scored lowest compared to Cebu and Mandaue at 49.11. This score was also lower than the regional average of 52.56. However, both Cebu and Mandaue Cities scored a higher percentage than the regional average at 54.5 and 54.6 respectively. For the secondary level, Cebu City scored the lowest for the three cities at 38.34. This was also lower than the regional average of 41.9 Lapulapu City also scored lower than the regional average at 40.88. Mandaue City on the other hand, scored higher than the regional average at 43.44. From these figures, much has to be done to improve the quality of instruction in the public elementary and secondary levels to attain the 75% performance level.

Literacy Rates. In 2000, basic literacy rate for Cebu, Lapulapu and Mandaue Cities were higher than the regional and national rates. Mandaue had the highest basic literacy rate among the three cities at 98.72 followed by Cebu City at 98.04. Lapulapu had the lowest rate at 95.35 but still higher than the regional rate of 91.7 and the national rate of 92.3. Functional literacy rate was lower than the basic literacy rates at 90.4 for Cebu City, 80.18 for Lapulapu City and 70.95 for Mandaue City.

City	Basic Literary Rate	Functional Literacy Rate
Cebu City	98.04	90.4
Lapulapu	95.35	80.18
Mandaue	98.72	70.95
Region 7	91.7	80.9 (based on 1995 census)
Philippines	92.3	No data

Table 18: Literacy Rate: Cebu, Mandaue, Lapulapu Cities, Region 7, Philippines, 2000

Source: DECS Region 7. Annual Report

Educational Attainment. Educational attainment is another good measure in assessing Metro Cebu's effort in addressing literacy problem. The table below shows that there was an improvement in terms of the number of persons 20 years & older with educational attainment from 1990 to 2000.

Metro	All Persons	No grade	Pre-	Elementary	High	Post	College or
Cebu	20 and older	Completed	school		School	Secondary	More
1990	654,185	4.0	0.0	37.7	25.9	3.7	28.1
2000	919,695	1.6	0.1	28.5	30.9	6.7	28.9
% change	40.6	-2.4	0.1	-9.2	5.0	3.0	0.8

Table 19: Percent of Population 20 Yrs. & older, by Highest Educational Attainment. 1990 and 2000

Source: Zosa et al. 2004. Cebu: A Demographic and Socioeconomic Profile Based on the 2000 Census

4.1.3 Transport and traffic management

Metro Cebu shares the same urban problems with Metro Manila. Transport and traffic management is a priority concern since major sections of Metro Cebu like markets, schools, business districts, are prone to traffic congestion. The causes of the problem like in any other Metropolitan Cities are insufficient road system, rapid increase in car ownership, lack of quality public

transportation services, defective administration of traffic regulations as well as undisciplined motorists and pedestrians. The table below shows that the demand for road use will continue to rise rapidly towards the next century. By then, Metro Cebu's major roads will have exceeded their full capacity. (Mercado, 2002).

	1979	1992	2000	2010
Person Trips (000)				
Private	111	347	583	901
Public	1029	1346	1728	2309
Total	1139	1693	2311	3210
Annual Growth Rate		3.05	3.89	3.29
Selected Sections (Per trips in 000)				
Talisay – Cebu		35	61	85
Cebu – Mandaue		51	110	159
Mandaue – Consolacion		25	55	82
Mactan – Mainland		17	36	58
Road Congestion Ratio				
Talisay – Cebu		1.18	2.03	2.83
Cebu – Mandaue		0.64	1.38	1.99
Mandaue – Consolacion		1.25	2.75	4.10
Mactan – Mainland		0.86	1.8	2.90
Assumptions				
Population (000)		1274	1712	2301
Trip Maker (000)		956	1284	1726
Trip Rate per Trip Maker		1.68	1.8	1.86
Private Vehicles (000)		65	110	170

 Table 20: Past and Future Traffic Demand in Metro Cebu, 1979-2010

Source: Mercado, 2002. Setting an Institutional Framework for Metropolitan Management in Metro Cebu

Accelerated Increase in Car Ownership

The table below shows that the number of registered motor vehicle in Metro Cebu increased by 60% between 1993 to 1999. This trend indicates that traffic volume increased significantly between these years. Eighty two percent (82%) of all motor vehicles in Cebu Province were registered in Metro Cebu. (JBIC, 2001)

Area	1993	1994	1995	1996	1997	1998	1999
Cebu City	62,590	69,824	74,993	85,485	92,404	95,861	95,945
Mandaue City	34,440	34,106	41,358	26,268	27,107	31,485	32,585
Lapulapu City	-	-	-	18,242	21,173	22,408	26,652
Metro Cebu	97,030	103,930	116,351	129,995	140,684	149,754	155,182
Cebu Province	114,048	124,574	141,361	155,416	173,859	187,683	197,320
Philippines	No data	No data	No data	2,904,487	3,193,549	3,316,817	3,533,732

Table 21. Motor Vehicle Registration in Metro Cebu, Cebu Province, Philippines. 1993 to 1999

Source: Japan Bank for International Cooperation. 2001. Metro Cebu Development Project Phase II.

The Metro Cebu Development Project was able to address this transport and traffic problem through the expansion of national roads and construction of new roads; construction of bus terminal; and expansion and development of public markets in Mandaue and Talisay Cities. The expansion and improvement of national roads covers around 52.8 kilometers and the construction of new roads

in the Mandaue Causeway covers 2.5 kilometers. These have improved traffic flow especially during the peak hours and travel time has been substantially reduced. The construction of the bus terminal, on the other hand, facilitated the accessibility of commuters to transportation services. (JBIC, 2001)

4.1.4 Housing Services

A study done by Sajor in 2001 through the Urban Management Programme-Asia shows that Metro Cebu's urban change in the late 80's and 90's highlights one major social consequence of Metro Cebu's rapid urbanization and increasing population growth, the explosion of a housing crisis that has at its core the unavailability and un-affordability of land for mass housing. Although the real estate sector enjoys a boom in sales, not all households in the cities can afford the house and lot packages offered by the developments. In the same study, it stated that the percentage increase in housing backlog grew from 37.2 % in the 1980-1990 period to 44.8% for 1990-2000 and that an estimated 72.6% of the housing backlog of Metro Cebu for the year 2000 constitutes subsidized housing units or social housing.

Thus, Metro Cebu is now confronted with major constraints in solving its housing crisis – scarcity and high price of land, and the resistance to state housing measures and policies by grassroots stakeholders. A strong linkage between all the local government units in Metro Cebu is needed to better address their housing problems.

4.1.5 Solid Waste Management and Waste Disposal

In Metro Cebu, the local government units are responsible for both the collection and disposal of garbage. For Metro Cebu and its key cities, the findings show that even with the availability of garbage trucks, households still resort to dumping as a common mode of garbage disposal. (Zosa et al, 2004). These dumping and burning may pose environmental and health hazards to the residents and may cause flooding.

Garbage Disposal	Philippines	Region 7	Metro Cebu	Cebu	Mandaue	Lapulapu
Total Households	15275046	1133767	345,251	147,600	54,882	44,439
Garbage Truck Pick-up	32.40	22.2	53.50	74.0	67.70	36.70
Dumping	10.30	11.10	6.70	5.50	5.40	6.60
Burning	46.10	53.80	35.0	16.60	24.4	51.80
Composting	3.90	5.50	1.50	0.90	1.10	1.80
Burying	3.10	2.90	1.40	1.00	0.90	1.30
Feeding to animals	3.40	4.00	1.20	1.40	0.20	1.40
Others	0.70	0.50	0.60	0.70	0.30	0.50

Table 22. Percent of Households, By Mode of Garbage Disposal in Metro Cebu, 2000

Source: Zosa et al. 2004. Cebu: A Demographic and Socioeconomic Profile Based on the 2000 Census

The biggest challenge in the solid waste management is the identification and maintenance of final disposal sites. The Metro Cebu Development Project included the creation of the Inayawan Sanitary Landfill in Cebu City as a way of addressing this problem but the sanitary landfill, now in its 6th year of operation, is already nearing its life (JBIC, 2001). For Cebu City, new landfill area should be determined before Inayawan reaches its capacity. Other cities and municipalities use open

dumpsites for its garbage disposal. Sanitary landfill investment and maintenance needs large amount of money such that one local government may not be able to afford developing a landfill site. In this regard, a strong cooperation between all the local government units in Metro Cebu is needed to better capture the benefits of economies of scale.

4.1.6 Water Supply

The main source of water supply for domestic and industrial use in Metro Cebu is groundwater, deriving mainly from the coastal limestone aquifer and alluvial water-bearing formation in the river deltas of five rivers, namely: Kotkot River, Cansaga River, Butuanon River, Mananga River and Pangdan River (Villafane, 2001). The sprouting of industries meant the influx of people in Metro Cebu, putting further strain into its already fragile resource, mainly groundwater. This suggests that groundwater as a source of water supply in Metro Cebu could be nearing its demise (Zosa et al. 2004).

Source of Drinking Water. In 2000, 61% of the total households in Metro Cebu had community water system including the purchase of bottled water compared to 1990 at 54.9%. Others resorted to piped deep or shallow well, dug well and spring/lake (Zosa et al, 2004).

Year	Total	Community Water System		Tubed/Piped Deep Well		Tubed/	D	Spring,	Peddler,	
	House- holds	Private Faucet	Stem Shared Faucet	Private	Shared	Piped Shallow Well	Dug Well	Lake, River, Others	Bottled, Water, Others	
1990	239002	23.1	27.4	6.8	21.3	3.4	9.0	4.5	4.4	
2000	345351	27.1	26.6	5.7	21.8	2.8	4.5	4.2	7.3	
% change		4.0	-0.8	-1.1	0.5	-0.6	-4.5	-0.3	2.9	

Table 23: Source of Drinking Water: Metro Cebu. 1990 and 2000.

Source: Zosa et al. 2004. Cebu: A Demographic and Socioeconomic Profile Based on the 2000 Census

A study done by the Philippine Institute for Development Studies and the Department of Environmental and Natural Resources in 1998 reveals that the water supply capacity of the Metro Cebu Water District, which supplies water for Metro Cebu is not sufficient for the growing number of urban population in Metro Cebu. At present, Lusaran Dam is being developed as another source of water supply by the local government.

In a paper done by Mercado (2002), he said that the challenge for Metro Cebu is how it will formulate a long-term solution to the current and future water supply problem. He further said that this would include the development of other water sources and rehabilitation of operational dams. David et al (1998) concluded in their study on water in Metro Cebu that there is an urgent need for a more integrated and holistic approach to the otherwise fragmented and relatively weak institutional structure that handles water resource management. This suggests that a more organized metropolitan body is needed to address this water supply problem.

4.2 Increasing infrastructure through the Metro Cebu Development Project

Metro Cebu's urbanization and increased population brought about congestion and increased demand for basic services as well as increase in the demand for infrastructure. The Metro Cebu Development Project is an integrated area, multi-sectoral and multi-phased project of the Central Visayas Regional Development Council funded by a loan from the Japanese Government. Its objective is to enhance the economic potential of the region's urban center, particularly of Metro Cebu as an area for industrial development. The project comprises the following components: transport, industrial development, municipal services, shelter and provincial management. (RDC Annual Report, 1998). The responsibility for the overall coordination and management of MCDP is lodged with the RDC of Region 7 and it has three phases.

Phase I was composed of four packages namely: construction and widening of national roads stage I; procurement of traffic management; construction of the Cebu South Bus Terminal; and construction and widening of national roads stage II.

Phase II included the following components: expansion of national roads and construction of new roads; construction of bus terminal; expansion and development of public markets in Mandaue and Talisay; and development of solid waste management system in Cebu City.

Phase III had two components namely: the Cebu South Reclamation Project (CSRP) and the Cebu South Coastal Road Project (CSCRP). Both projects were funded by the government of Japan with the City of Cebu as the executing agency for the CSRP and the Department of Public Works as the executing agency for the CSCRP. The *Cebu South Reclamation Project* consisted of primary and complementary components, foremost of which is the offshore reclaimed comprising approximately 330 hectares. This serves as an alternate location for Cebu's high end commercial and business establishments. This area is adjacent to the Cebu North Reclamation Project, providing harmony to the overall urban development strategy for Metro Cebu. The City's reclamation project, implemented by the Cebu City Government, is expected to boost Metro Cebu's further development. The 6.45-kilometer *Cebu South Coastal Road Project* connecting Ludo wharf to Tangke, Talisay City was formally opened by vehicular traffic by President Gloria Macapagal-Arroyo last March 26, 2004. The highway will later on be extended by 5.3 kilometer more along the coastline of Talisay and is expected to be fully completed by mid-2006

Impact of the Development Projects of MCDP

The establishments of road networks, bus terminal and reclamation areas alleviated the traffic congestion and subsequently improved the living environment in Metro Cebu. The Northern Bus Terminal located in Mandaue City, also furthers economic development as employment opportunities have been created for vendors. Before the project, buses stopped at scattered locations such as roads and gas stations which gave negative impacts on the surrounding environment. The construction of market buildings in the cities of Mandaue and Talisay help improve the living environment for local residents. It also provides numerous revenue sources for the government through rents, taxes, and user chargers as well as business opportunities for citizen who sells produce in the market. The Inayawan Sanitary Landfill located in Cebu City improved the waste collection rate of Cebu City to around 80%. (JBIC, 2001)

4.3. Improving Resource Generation

One of the advantages of urbanization and population growth is the increased opportunity for resource generation. In areas of high population growth like Metro Cebu, the inability of government to fund the delivery of the right quantity and quality of basic public services can be solved by increasing local revenue effort.

Local Revenue from Local Sources: Cebu, Mandaue and Lapulapu Cities

For the cities of Cebu, Mandaue and Lapulapu, local taxes, internal revenue allotment and borrowings were the top three sources of income from 1996 to 2000. In Cebu City, except for local taxes, real property tax, non-tax revenue and economic enterprise increased from year 2000 to 2001. In Mandaue City, real property tax and non-tax revenue increased from 2000 to 2001. Economic enterprise and local taxes decreased however but the total revenue still increased from 231M in 2000 to 270M in 2001. For Lapulapu City, non-tax revenue, economic enterprises and local taxes increased from 2000 to 2001. However, real property tax decreased from 124.8M to 123M (DOF, 2001).

City	Local Revenue Source	2000	2001
Cebu	Real Property Tax	267,572,531	625,343,961
	Local Taxes	323,259,915	275,359,255
	Non-tax Revenue	92,594,616	167,770,309
	Economic Enterprise	15,529,002	36,673,026
	Total Revenue	698,956,064	1,105,146,551
Lapulapu	Real Property Tax	124,846,280	123,077,671
	Local Taxes	127,945,491	154,770,181
	Non-tax Revenue	11,546,673	27,998,597
	Economic Enterprise	3,152,074	4,726,663
	Total Revenue	267,487,518	310,573,112
Mandaue	Real Property Tax	79,198,000	128,464,392
	Local Taxes	74,672,000	63,564,804
	Non-tax Revenue	45,706,000	49,903,842
	Economic Enterprise	31,720,000	28,451,771
	Total Revenue	231,296,000	270384808

Table 24. Local Revenue from Local Sources, Cebu, Lapulapu, Mandaue. 2000 & 2001.

Source: Department of Finance - Bureau of Local Government Finance. 2001

Tax Collection Efficiency

In Lapulapu City, tax collection was generally efficient during the 2001 and 2002 period as shown by the table below.

	J, rran		(- F	
Revenue Sources	Estin	nated	Collected		
Kevenue Sources	2001	2002	2001	2002	
Total Tax Revenue	384	458.98	612.51	455.91	
IRA	184	205	198.01	204.41	
Other Taxes	6.96	10.17	168.08	33.48	
Property Tax	67.3	70.5	63.84	59.85	
Taxes on Goods and Services	107	149.74	153.18	121.31	
Fines & Penalties	-	-	1.26	7.65	
Total Operating & Misc. Rev.	18.75	23.57	28.14	28.21	

Table 25. Tax Collection Efficiency, Lapulapu City, 2001-2002 (in million pesos).

Source: Lapulapu City Budget Office, 2003

4.4. Improving Resource Allocation

The budget reflects a government's socio-economic policy priorities by translating policies and commitments into expenditures and revenue.

Resource allocation process largely depends on the current administration's priority programs. From 1996 to 2000, Cebu City allotted the biggest share of its budget to economic services and general public services. There's no budget allotted for labor and employment except in 1996 and 1999 where it has a less than 1% share of the total expenditure. Social welfare services also had the smallest share with only 1 to 2%. In Lapulapu City, the general public health services had the biggest bulk while the labor and employment and social welfare services had the smallest shares. For Mandaue City, general public services and economic services had the biggest share and like in Cebu and Lapulapu, labor and employment and social services had the smallest shares. See table below.

Table 26: Expenditures Per Sector Cebu, Lapulapu, Mandaue Cities, 1996 – 2000 Expenditures Source: PIDS, 2004

	2000		1999		1998		1997		1996	
a. a.		%		%		%		%		
Cebu City	Number	share	Number	share	Number	share	Number	share	Number	% share
TOTAL EXPENDITURES	2,465,764,594.24		2,091,216,826.08		1,442,842,442.13		1,650,458,173.06		920,824,950.80	
General Public Services	560,697,767.47	22.74	526,792,013.24	25.19	527,680,839.14	36.57	489,513,631.46	29.66	365,398,727.59	39.682
Education Expenditures	139,369,660.44	5.65	146,065,600.49	6.98	274,258,937.27	19.01	119,571,493.47	7.24	81,124,199.92	8.8099
Health Expenditures	179,722,488.10	7.29	181,236,341.35	8.67	153,770,232.24	10.66	129,197,924.48	7.83	104,154,183.59	11.311
Social Welfare Services	30,932,628.39	1.25	14,788,642.51	0.71	22,885,188.75	1.59	24,544,457.72	1.49	8,850,675.79	0.9612
Labor and Employment	0.00	0.00	9,300,027.40	0.44	0.00	0.00	0.00	0.00	7,203,004.80	0.7822
Housing & Community Devt	79,329,064.20	3.22	80,033,902.14	3.83	91,272,830.43	6.33	110,985,306.52	6.72	81,191,873.04	8.8173
Economic Services	1,205,282,263.17	48.88	961,683,785.51	45.99	238,017,311.47	16.50	680,114,644.28	41.21	161,805,525.09	17.572
Other Purposes	270,430,722.47	10.97	171,316,513.44	8.19	134,957,102.83	9.35	96,530,715.13	5.85	111,096,760.98	12.065
	N 7 N	%	N T N	%	N T N	%	X 7 X	%	X 7 X	0/ I
Lapulapu City	Number	share	Number	share	Number	share	Number	share	Number	% share
TOTAL EXPENDITURES	405,395,789.37		289,961,704.89		235,091,851.99		290,431,252.54		270,619,352.71	
General Public Services	164,859,465.00	40.67	136,095,978.92	46.94	103,214,980.10	43.90	86,717,509.16	29.86	116,383,512.08	43.006
Education Expenditures	52,787,822.81	13.02	32,529,750.42	11.22	36,317,461.20	15.45	40,731,543.94	14.02	39,181,930.08	14.479
Health Expenditures	39,459,425.16	9.73	16,138,332.72	5.57	10,838,739.24	4.61	14,289,604.65	4.92	11,832,179.88	4.3723
Social Welfare Services	9,734,182.21	2.40	6,722,508.74	2.32	12,250,161.44	5.21	8,170,868.25	2.81	7,013,677.05	2.5917
Labor and Employment	92,000.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Housing & Community Devt	40,302,739.85	9.94	56,365,685.83	19.44	26,529,278.62	11.28	13,056,010.31	4.50	11,394,163.45	4.2104
Economic Services	66,041,662.07	16.29	28,581,716.19	9.86	21,395,117.55	9.10	30,625,601.12	10.54	20,158,291.96	7.4489
Other Purposes	32,118,492.27	7.92	13,527,732.07	4.67	24,546,113.84	10.44	96,840,115.11	33.34	64,655,598.21	23.892
Mandaue City	Number	% share	Number	% share	Number	% share	Number	% share	Number	% share
TOTAL EXPENDITURES	395,854,066.11	share	379,288,161.37	share	363,495,967.07	share	299.997.882.94	share	No data	No data
General Public Services		49.22	, ,	46.21		5671		52.05		No data
	191,295,874.84	48.32	175,649,626.19	46.31	206,124,829.84	56.71	161,536,087.85	53.85	No data	
Education Expenditures	8,463,206.81	2.14	45,849,702.04	12.09	38,364,287.90	10.55	22,718,512.45	7.57	No data	No data
Health Expenditures	42,664,669.95	10.78	24,504,149.53	6.46	22,948,536.42	6.31	23,160,569.95	7.72	No data	No data
Social Welfare Services	6,281,457.83	1.59	5,927,330.36	1.56	5,470,680.77	1.51	4,885,233.65	1.63	No data	No data
Labor and Employment	0.00	0.00	1,874,475.00	0.49	2,808,539.45	0.77	2,787,300.00	0.93	No data	No data
Housing & Community Devt	31,968,351.77	8.08	23,791,112.63	6.27	4,115,081.11	1.13	3,535,387.27	1.18	No data	No data
Economic Services	75,672,614.38	19.12	76,435,301.28	20.15	77,329,604.31	21.27	71,712,001.52	23.90	No data	No data
Other Purposes	39,507,890.53	9.98	25,256,464.34	6.66	6,334,407.27	1.74	9,662,790.25	3.22	No data	No data

4.5 Coming Together to Form a Metro Structure

A contemporary regional development phenomenon occurring in the Philippines is the emergence of new regional spaces through the formation of metropolitan arrangements. From an economic standpoint, urban services can be more efficient if they are jointly planned and delivered thereby creating economies of scale. Moreover, greater positive externalities will spill over to society as a result of metro arrangements (Manasan, 2002). Literature also says that services requiring areas larger than a local jurisdiction for cost-effectiveness like water supply, sewage disposal and solid waste management as well as public health are generally assigned to metropolitan government worldwide.

Metropolitan Cebu Development Council (MCDC)

Triggered by the end of MCDP, Metro Cebu adopted the metropolitan development council for their organizational structure. Regional development programs, which define certain areas targeted for development provided the impetus for these adoption. The Metro Cebu Development Council was created by the Regional Development Council through Resolution No. 117 (Series of 1997) to solve the growing problems of garbage disposal, drainage, traffic management, and the delivery of other basic urban services in Metro Cebu area, which problems are perceived to be better addressed through collective efforts among local government units (RDC 7 Annual Report 2001-2002). The MCDC is composed of the governor of Cebu, the mayors of the Cities of Cebu, Mandaue, Lapulapu and Talisay and the mayors of the Municipalities of Compostela, Liloan, Consolacion, Cordova, Minglanilla and Naga. The Governor of Cebu acts as Interim Chairman of the Council while the NEDA Regional Office 7 serves as the interim Secretariat of the MCDC. Among the functions of the MCDC are to coordinate the formulation of developments plans and the preparation of programs and projects for Metro Cebu and to monitor the implementation of these plans, programs and projects (Mercado, 1998).

Problems arising from a Metropolitan Development Council

A development council may solve the problems of urbanization and rapid increase in population by capturing the benefits of economies of scale. However, in Metro Cebu's case, the development council activities or areas of cooperation are limited to increasing infrastructure. Delivery of basic services especially public health and education are not addressed where benefits and costs accrue to non-residents of a local jurisdiction.

Moreover, a more solid body in terms of financial capability should be established to address the current and future urbanization and population growth problems. Financial sustainability of the MCDC is at risk because it is donor-driven or its budget is tied with the funds coming partner agencies.

Towards a Metropolitan Development Authority

Recognizing the need for a more permanent body that would look into the various development needs of Metro Cebu and for a more efficient delivery of basic services and governance, MCDC in one of its meeting, requested all senators and congressmen from Metro Cebu to support the creation of a Metro Cebu Development Authority. A metropolitan development authority would address the lack of financial sustainability of a council whose budget is tied with funds coming from partner agencies and is more of a technocratic organization than a political body therefore decision-making is de-politicized.

A bill entitled, "An Act Creating Metropolitan Cebu, Establishing the Metropolitan Cebu Development Authority, Defining its Powers and Functions, Providing Funds Therefore, and for Other Purposes" was filed in the Congress by Representative Raul V. Del Mar in July 2, 2001 and in the Senate by Senator Sergio Osmeña III in September 3, 2001. This Act seeks to create a special political subdivision to be known as Metropolitan Cebu Development Authority, which is likewise created to coordinate and administer the effective delivery of basic services in the cities and municipalities comprising Metro Cebu area. This is to match the accelerated development of Metro Cebu by providing effective, efficient and comprehensive system of delivery of basic services such as transport and traffic management; fire and flood control and management; health and sanitation system including pollution control and solid waste disposal; zonification; calamities and emergencies control and management; water and sewerage services; and housing and urban renewal. Also included in the bill is the creation of Metro Cebu Council, a governing board and policy making body of the MCDA composed of the mayors of the cities and municipalities of Metro Cebu and two representatives from the private sector.

Until now, the bill is still pending in the Committee on Local Government in the House of Representatives and in the Committee on Local Government and the Committee on Finance in the Senate since the year 2001.

5.0 Conclusions and Recommendations

The urbanization and increased population of Metro Cebu brought about increased demand for basic services. In addressing this problem, efficient and effective local governance is much needed. Generally, Metro Cebu can provide the basic services needed to its constituents especially the top three cities of Cebu, Lapulapu and Mandaue. The problem lies with the prioritization of these services they are providing. Housing service in Cebu and Mandaue was among the least prioritized. The impact of this can be seen from the number of slum areas and make-shift houses present in the area.

The MCDP of the CVRDC addressed the traffic management and congestion of Metro Cebu through increased infrastructure mainly the expansion of existing roads, construction of new roads and the establishment of a bus terminal and public markets. However, services that require areas larger than a local jurisdiction for cost-effective provisioning like water supply, garbage disposal and solid waste management are still a problem. The same is true for services like public health and basic education whose benefits and costs accrue to non-residents of a local jurisdiction.

Realizing this, Metro Cebu adopted the Metro Cebu Development Council for their organizational structure to solve the growing problems of garbage disposal, drainage, traffic management and delivery of basic urban services in Metro Cebu area. However, a more solid body in terms of financial capability should be established to address the current and future urbanization and population growth problems. Financial sustainability of the MCDC is at risk because it is donor-driven or its budget is tied with the funds coming partner agencies.

There is a need for the establishment of a permanent body that will look closely at the various needs of Metro Cebu and for a more efficient delivery of basic services and governance. Therefore, the creation of a Metropolitan Development Authority instead of a Metropolitan Council should be pushed through. A metropolitan development authority is an attractive structure in view of its relative institutional permanence, greater corporate powers and functions and fiscal advantage. From the experience of the Metro Manila Development Authority (MMDA), under Section 10 of RA 7924, they are appropriated the amount of one billion pesos as initial budget for its operation and thereafter, annual expenditures is provided for under the General Appropriations Act. Also, since a metropolitan development authority is more of a technocratic organization than a political body, decision-making is de-politicized.

6.0 Bibliography

Asia Urban Information Center of Kobe. Cebu City in 1990 [Online]. Available on the world wide web. <u>http://www.auick.org/database/ids/ids03/ids03_034.html</u>

Berondo, W. A. July 2004. Coalition to Help Manage Population Launched Today [Online]. Available on the World Wide Web. http://wwwthefreeman.com/local/index.php

Brillantes, A. Jr. 1999. Decentralization, Devolution and Development in the Philippines. Occasional Paper No. 44. ___. Urban Management Program for Asia.

Central Visayas Information Sharing Network http://www.cvis.net.ph

City Government of Cebu http://www.cebucity.gov.ph

City Government of Mandaue http://www.mandauecity.gov.ph

David, C. C., A. Inocencio, F. Largo, E. Walag. 1998. Water in Metro Cebu: The Case for Policy and Institutional Reforms. PIDS Discussion Paper Series No. 98-38

Department of Education Region 7. Annual Reports. Various Years.

Department of Health Region 7. FHSIS Vital Statistical Report. Various Years.

Department of Budget and Management. http://www.dbm.gov.ph

Etemadi, F. U. 2000. Civil Society Participation in City Governance in Cebu City. Environment and Urbanization Volume 12 No. 1

House Bill No. 8. An Act Creating Metropolitan Cebu, Establishing the Metro Cebu Development Authority, Defining its Powers and Functions, Providing Funds Therefor and Other Purposes. Filed July 2, 2001

Israel, D. C. 1997. Industrial Growth and Environmental Protection in Metro Cebu: Some Challenges and Recommendations. Philippine Institute for Development Studies Policy Notes No. 97-04. Makati City. PIDS

Japan Bank for International Cooperation. 2001. Metro Cebu Development Project. Available Online. http://www.jbic.go.jp/english/oec/post/2001/pdf/e_project_57_all.pdf

Kitakyushu Initiative for a Clean Environment. 2002. Solid Waste Management in Cebu City [Online]. Available on the World Wide Web http://www.iges.or.jp/kitakyushu/Successfl% 20Practices/SP%20(Analyzed)/Solid%20Waste/3%20Cebu%20(Paper).pdf

Largo F, A. Inocencio, C. David. 1998. Understanding Household Water Demand for Metro Cebu. Philippine Institute for Development Studies Discussion Paper Series No. 98-41. Makati City. PIDS. Manasan, R. G. 2002. Financing and Delivery of Urban Services in the Philippines: An Overview in *Managing Urbanization Under a Decentralized Governance Framework* edited by Rosario G. Manasan. Makati City. PIDS

Manasan, R.G. 2002. Financing and Delivery of Urban Services in the Philippines: An Overview in *Managing Urbanization Under a Decentralized Governance Framework* edited by Rosario G. Manasan. Makati City. PIDS

Manasan, R. G. and R. Mercado. 2002. Metropolitan Arrangements in the Philippines: Passing Fancy or the Future Megatrend? in *Managing Urbanization Under a Decentralized Governance Framework* edited by Rosario G. Manasan. Makati City. PIDS

Manasan, R. G. and R. Mercado. 2002. Metropolitan Arrangements in the Philippines: An Overview in *Managing Urbanization Under a Decentralized Governance Framework* edited by Rosario G. Manasan. Makati City. PIDS

Mercado R.. 2002. Governance and Urban Development: Case Study of Metro Manila in *Managing Urbanization Under a Decentralized Governance Framework* edited by Rosario G. Manasan. Makati City. PIDS

Mercado, R. 2002. Metro Davao: In Search of Metropolitan Definitions in *Managing Urbanization Under a Decentralized Governance Framework* edited by Rosario G. Manasan. Makati City. PIDS

Mercado, R. G. 1998. Megalopolitan Manila: Striving Towards a Humane and World Class Megacity. Philippine Institute for Development Studies Discussion Paper Series No. 98-30. Makati City. PIDS

Mercado, R. G. 2002. Setting an Institutional Framework for Metropolitan Management: Metro Cebu in *Managing Urbanization Under a Decentralized Governance Framework* edited by Rosario G. Manasan. Makati City. PIDS

Mercado, R. G. 1998. Metropolitan Cebu: The Challenge of Definition and Management. Philippine Institute for Development Studies Discussion Paper Series No. 98-15. Makati City. PIDS

National Economic Development Authority. 1993. Training Module on Integrated Population and Development Planning.

National Statistics Office. 1995 Cebu Census of Population: Socio-Economic and Demographic Characteristics

National Statistics Office. 1980 Cebu Census of Population and Housing

Peyra, D. 2004. Destination: Cebu. Volume II No. 1, Makati City. Philippine Business Magazine.

Philippine Center for Investigative Journalism. 2001. Investigating Local Government: A Manual for Writers.

Philippine Statistical Yearbook. 2003 and 2004.

Regional Development Council Annual Report. July 2001-December 2002.

Regional Development Council Annual Report. 1998.

Sajor, Edsel E. September 2001. UMP-Asia Occasional Paper No. 52. The Real Estate Boom in the 1990s and Land Use Allocation for Socialized Housing in Metro Cebu, Philippines. Available Online http://www.serd.ait.ac.th/ump/OP052.pdf

Senate Bill No. 163. An Act Creating Metropolitan Cebu, Establishing the Metro Cebu Development Authority, Defining its Powers and Functions, Providing Funds Therefor and Other Purposes. Filed September 3, 2001

Villafañe, J. E. 2001. The Metro Cebu Environmental Improvement Project. Environmental Management Bureau Region 7. Paper presented during the First Meeting of the Kitakyushu City, 20-21 November 2001.

Zosa, A. R., V. Zosa, S. Gultiano, D. Cusi. Forthcoming. Cebu: A Demographic and Socioeconomic Profile Based on the 2000 Census. Provincial Government of Cebu and Japan International Cooperation Agency.