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# Megalopolitan Manila: Striving Towards a Humane and World Class Megacity

*Ruben G. Mercado*

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# Megalopolitan Manila : Striving Towards a Humane and World Class Megacity

*Ruben G. Mercado*<sup>1</sup>

## 1. Introduction

In 1990, Metro Manila, with 7.9 million population, ranked 18<sup>th</sup> among the largest urban agglomeration in the world. By the turn of the century, it is expected to reach 11.8 million and will rank 20<sup>th</sup> of the 28 identified megalopolises or megacities in the world.<sup>2</sup> (UNU, 1994).

The long-term development vision for Metro Manila is encapsulated in the title of the region's 1996-2016 physical framework development plan "Towards a Humane World-Class Metropolis" (MMDA, 1996). The yardsticks for the attainment of this vision can be derived from the two key words: *humane* and *world-class*.

A *humane metropolis* is where its people, residents or otherwise, enjoy the basic amenities of urban living – shelter, security, employment, healthy and aesthetically pleasing environment, mobility, communication and personal recreation.

A *world-class metropolis* connotes a metropolitan settlement where infrastructure and services are considered world standard in terms of level of sophistication and intelligence, efficient and highly qualified to cater to international functions. Recent literature on defining or classifying cities in the context of a global economy suggested key features for cities to be considered world class mostly based on urban functions. Friedmann (1995) suggests four criteria: numbers of headquarters of international institutions, rapid growth of the business services sector, major transportation modes, and existence of a major financial center. Simon (1995) lists three criteria: the existence of a sophisticated financial service complex serving a global clientele, a level of international networks of capital information and communication flows, and a quality of life conducive to attracting and retaining skilled international migrants.

Admittedly, Metro Manila needs to speed up its effort to at least be competitive with the world class cities in the world. The rapid growth in public expenditure needed to meet the social and physical infrastructure requirements of the expanding populations in the metropolis has been a constant challenge. Efficient transportation leaves much to be desired. Basic utilities in terms of water, power and

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<sup>2</sup> Recently, the emergence of big metropolises in the world has prompted the United Nations to classify certain metropolises as megalopolises which pertain to cities or metropolises having a population of 8 million and over (ADB, 1994).

communication facilities have yet to reach a hundred percent accessibility. The current emphasis on making premier cities globally competitive or world class further pressures the country to seek creative means to fund capital intensive programs. Alongside these challenges are institutional dilemma which have taken root from the country's colonial past and the political turmoil that plagued post-war national leaderships.

The present paper aims to highlight the issues and problems confronting Metro Manila by evaluating specific sectors or services that are critical to its better functioning. These include transport and traffic management, solid waste management, land use planning and urban renewal and infrastructure development (roads and flood control). Metropolitan leadership and management will also be evaluated as a major sector with the end in view of assessing the strengths and weaknesses of the present metropolitan organization. Areas for intervention will be identified to guide future policy review and action.

## **2. Basic Facts on Metro Manila**

### ***2.1 Brief History***

Metro Manila has had a long history. For 250 years before the Spanish arrived, Manila has been a prosperous city engaged in trading with neighboring China, Vietnam, Indonesia, Malaysia, Borneo and Kampuchea and with Acapulco as well. Because it was a progressive city with rich agricultural hinterland, Manila became the Spanish and, then later, America's colonial capital. Aside from being the direct link between the Philippines and its colonial rulers, Manila through its port served as the gateway for export of agricultural products and raw materials to Europe and the United States and for import of British and American manufactured goods. From the Spanish to the Americans, colonial policies have promoted the development of Manila as a primate city with the countryside "economically exploited to support the colonial bureaucracy in Manila" (Caoili, 1985 based on Cushner, 1971 and Regidor and Mason, 1905/1925). After the second world-war, economic policies have contributed further to the uneven development between Manila and the rest of the country. Manila was the favored location of industrial establishments because of its developed infrastructure and its being the country's principal port and financial and commercial center. This together with rural unrest and underdevelopment have encouraged rural migration to Manila and accelerated the urbanization process in the area.

Post-war rapid and uncontrolled population growth as a result of natural process and significant internal migration have contributed to the economic growth of Manila but brought countless problems in the process. These problems include poverty and housing shortage exemplified by the proliferation of slums and squatter settlements, inadequate public transportation system, traffic, deteriorating health and sanitation condition due to lack of potable water and unsanitary disposal of waste, lack of drainage and sewage system, pollution (air, water and noise) and worsening peace and order situation. Caoili (1985) argues that the failure to address the problems of Metro Manila during the post-war period was the piecemeal and uncoordinated solutions employed by local governments due to party politics and jurisdictional disputes over responsibility for the delivery of services. Also, there is a

highly uneven distribution of financial resources among local units resulting in wide disparities in the availability and quality of public services.<sup>3</sup>

The need to consolidate service efforts in view of urban services that already transcend local jurisdictions in Metro Manila has become more obvious in time. Thus, ad-hoc bodies or local government arrangements were established to address specific problems or needs. These include the United Intelligence Operations Group tasked to implement cooperative laws among the cities and municipalities, Fire Protection Organization, Metropolitan Health Council, Inter-Police Coordinating Council and the Metropolitan Mayors Coordinating Council. However, these were not sufficient to address the complex problems of the metropolis. It became evident that Metro Manila needs a unified structure and plan that will orchestrate the various activities of the local government units and the national government agencies operating in the area (Inter-Agency Committee on Metropolitan Manila, 1973).

Under the Marcos administration, a referendum was called for to get the people's support to legalize the compositional definition of Metro Manila and to give the President the authority to create a new administrative structure for the National Capital Region (NCR). Eventually, with the positive response by the people, Presidential Decree 824 was issued in 1975. It defined the composition of Metro Manila and created the Metro Manila Commission (MMC). League (1993) explains that because of the unique situation brought about by the appointment of the First Lady as Governor of Metro Manila while being the head of the powerful Ministry of Human Settlements (MHS), the MMC enjoyed a position of primacy in the metropolis. The MMC effectively curtailed the powers of local governments as the enactment of local ordinances no longer reside in them but have been absorbed by the MMC. Local governments have been effectively reduced to mere administrative units. In spite of MMC's enormous power and influence, it did not evolve into a separate metropolitan entity because of its overdependence on the Governor and on the national agencies which provided special services to MMC inasmuch as the Ministers of the key agencies serve also as action officers of the Commission. League (1993) further explains that most of MMC's projects "concentrated on high visibility impact projects...reactions to specific problems or showcase projects which were not sustainable". Without a NEDA Regional Office in the NCR, there was no Regional Development Plan to guide the development of the metropolis in an integrated fashion with its neighbouring regions and with national priorities. It was not until the 80's when the Commissioner for Planning was appointed and took on the functions and responsibilities similar to a NEDA Regional Director.

With the collapse of the Marcos administration in 1986 and with the installation of a new Constitution which passed on to Congress the task of determining the appropriate institutional mechanism for metropolitan management, Metro Manila was in an institutional drift, with an ambiguous structure and leadership. The growing problems of Metro Manila most especially with respect to traffic and garbage triggered then President Corazon Aquino to issue Executive Order

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<sup>3</sup> Caoili (1985) cites that "...in fiscal year 1974-75, per capita revenue among MMA units ranged from P16 in Pateros to P223 in Manila. Per capita expenditures during the same year varied from P19 in Pateros to 243 in Makati. In calendar year 1980, per capita revenue among MMA units ranged from P34 in Pateros to P412 in Makati. Per capita expenditures during the same year varied from P28 in Pateros to P351 in Makati".

392 in 1990 which created the Metro Manila Authority (MMA) as an interim body until such time Congress enacts the required law. The MMA was considered an emasculated version of its predecessor (the MMC) with executive and revenue powers reduced. Institutional ambiguity, a demoralized and reduced personnel (many of them have availed of the benefits offered by the Early Retirement Law in 1989), the reduced functions and revenue generating powers as a result of the passage of the Local Government Code all combined to constrict and hamper MMA's provision of public services in the metropolis.

Mounting metropolitan problems continued to haunt Metro Manila and the clamor for a better and stronger metropolitan body became stronger. It was not until 1995 that the Lower House and the Senate were able to reach a compromise bill and enacted Republic Act 7924 . RA 7924 reaffirms the compositional definition of Metro Manila constituting it into a "special development and administrative region" subject to direct supervision of the President of the Philippines. The law also provided for the creation of the Metropolitan Manila Development Authority (MMDA), clothing it with more powers and authorities than its predecessor body. Under the law, MMDA shall "perform planning, monitoring and coordinative functions, and in the process, exercise regulatory and supervisory authority over the delivery of metro-wide services within Metro Manila without diminution of the autonomy of the local government units concerning purely local matters".

## ***2.2 Composition:***

Under RA 7924, Metropolitan Manila is constituted as a special development and administrative region comprising the cities and municipalities of Manila, Caloocan, Mandaluyong, Makati, Paranaque, Pasay, Pasig, Pateros, Quezon, Muntinlupa, Marikina, Las Pinas, Malabon, Navotas, San Juan, Taguig and Valenzuela.

The composition of Metro Manila has not changed since its formation in 1975 as a public corporation under Presidential Decree 824 to the current legal geopolitical composition under RA 7924. The only change has been the recent reclassification of some municipalities into cities, namely Makati, Mandaluyong, Pasig, Marikina, Las Pinas and Paranaque.

## ***2.3 Population***

As can be gleaned from Table 1, Metro Manila's growth still exceeds the national average at a high rate of 3.5 percent from the period 1990 to 1995. Its population density of 14,930 persons per square kilometer in 1995 increased from 13,400 in 1990, almost 70 times the national figure.

The congestion picture of Metro Manila at present could be more glaring if one looks at each of the cities and municipalities composing it (Table 1). Congestion, as measured by a high population density, is more evident in the cities of Manila, Mandaluyong, Makati, Pasay and the municipalities of Navotas and San Juan. It is consoling to note, however, that these areas registered a slower growth than the average growth rate for the entire metropolis during the period 1990-1995.

**Table 1**  
**Metro Manila: Demographic Characteristics**

City / Municipality	Population Level 1990	Population Level 1995	Growth Rate 1990-1995	Land Area	Population Density 1995
Manila	1,598,918	1,654,761	0.62	24.98	66,243
Mandaluyong	244,538	286,870	2.75	9.29	30,879
Marikina	310,010	357,231	2.68	21.52	16,600
Pasig	397,309	471,075	3.22	48.46	9,721
Quezon City	1,666,766	1,989,419	3.34	171.71	11,586
San Juan	126,708	124,187	-0.40	5.95	20,872
Kalookan	761,011	1,023,159	5.64	55.8	18,336
Malabon	278,380	347,484	4.13	32.64	10,646
Navotas	186,799	229,039	3.82	8.94	25,620
Valenzuela	340,050	437,165	4.81	47.02	9,297
Las Pinas	296,851	413,086	6.37	32.69	12,636
Makati	452,734	484,176	1.25	18.31	26,443
Muntinlupa	276,972	399,846	7.02	39.75	10,059
Paranaque	307,717	391,296	4.57	46.57	8,402
Pasay	366,623	408,610	1.96	13.97	29,249
Pateros	51,401	55,286	1.37	10.40	5,316
Taguig	266,080	381,350	6.93	45.21	8,435
<b>Metro Manila</b>	<b>7,928,867</b>	<b>9,454,040</b>	<b>3.52</b>	<b>633.21</b>	<b>14,930</b>
<b>Philippines</b>	<b>60,679,725</b>	<b>68,616,536</b>	<b>2.32</b>	<b>300,000.00</b>	<b>229</b>

Basic Source: National Statistical Office, 1995

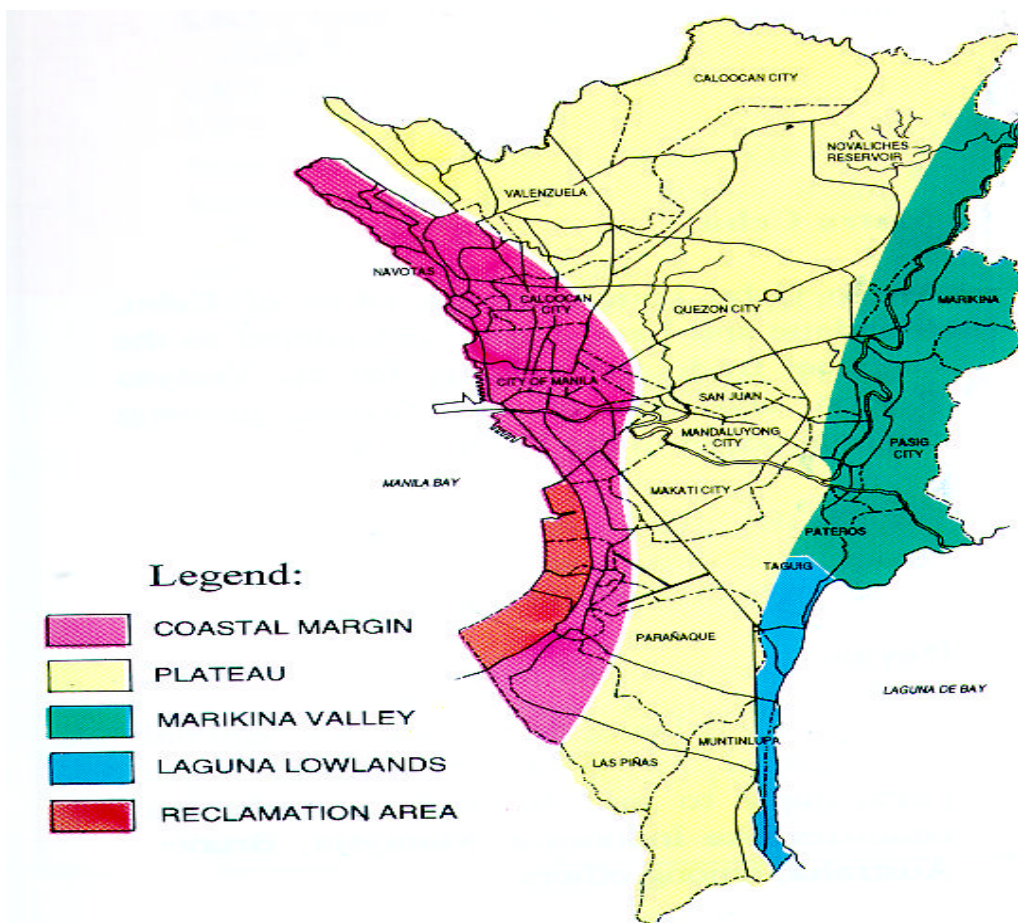
**Table 2**  
**Population Projections: Metro Manila: 1995-2110**

City/Municipality	Population (000)			Ave. Annual Growth Rate			
	2000	2005	2010	1990-1995	1995-2000	2000-2005	2005-2010
Manila	1644	1638	1623	0.7	-0.1	-0.1	-0.2
Mandaluyong	317	349	378	2.9	2.0	1.9	1.6
Marikina	420	490	557	2.9	3.3	3.1	2.6
Pasig	561	663	762	3.4	3.6	3.4	2.8
Quezon City	2349	2752	3140	3.6	3.4	3.2	2.7
San Juan	132	145	155	-0.5	1.3	1.9	1.3
Kalookan	1279	1514	1743	6.0	4.6	3.4	2.9
Malabon	419	482	542	4.4	3.8	2.8	2.4
Navotas	266	297	325	4.0	3.0	2.2	1.8
Valenzuela	550	683	821	5.1	4.7	4.4	3.7
Las Pinas	550	683	820	6.8	5.9	4.4	3.7
Makati	522	561	594	1.3	1.5	1.5	1.1
Muntinlupa	565	783	1036	7.5	7.2	6.7	5.8
Paranaque	60	574	672	4.9	4.0	3.8	3.2
Pasay	454	503	546	2.1	2.1	2.1	1.7
Pateros	60	66	71	1.5	1.8	1.9	1.5
Taguig	499	643	798	7.5	5.5	5.2	4.4
<b>Metro Manila</b>	<b>11063</b>	<b>12826</b>	<b>14583</b>	<b>3.5</b>	<b>3.2</b>	<b>3.0</b>	<b>2.6</b>

Source: NSO and JICA Team (JICA/MMDA, 1998)

Maintaining or slowing down this rate in the future may help alleviate further concentration in these areas. San Juan deserves special mention as it registered a negative growth rate (-0.40). This is attributed to the large transfer of San Juan's

## MAP OF PHILIPPINES / METRO MANILA





population to other areas both within and outside Metro Manila as a result of its intensified squatter relocation program during the period. In contrast, other areas having smaller population densities registered high growth rates suggesting that if these high rates will continue in the future further concentration will be experienced in these areas.

Given these observations, it may be surmised that in recent years, population growth in the metropolis has been occurring away from the inner core of the metropolis toward its periphery. Possible explanations can be a direct effort of local governments to reduce congestion (as in the case of San Juan) and/or the positive attraction of other less dense areas particularly in the outer core as alternative settlement areas in view of improved infrastructure development in these areas. Recent studies even consider the adjoining areas of Metro Manila outside of its administrative scope as part of the actual urban area. Corpuz (1995) has considered some parts of the provinces of Cavite, Bulacan, Rizal and Laguna as areas where growth directions are and would continue to take place as Metro Manila continues to experience fast growth at its periphery.

Table 2 shows that the trend of population growth occurring away from the inner core will continue in the next 15 years. In particular, the present and future development activities in the southern part of the metropolis are expected to cause a rise in population in areas covering Las Pinas, Muntinlupa, Paranaque and Taguig.

## ***2.4 Institutional Structure and Funding Arrangements***

### ***2.4.1 Scope of MMDA Services***

MMDA performs services “which have metro-wide impact and transcend local political boundaries or entail huge expenditures such that it would not be viable for said services to be provided by the individual local government units comprising Metro Manila”. These services include development planning, transport and traffic management, flood control and sewerage management, urban renewal, zoning and shelter services, health and sanitation, urban protection and pollution control and public safety.

### ***2.4.2 Fund Sources and Arrangements***

Under Section 10 of RA 7924, the MMDA is 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. The MMDA also continues to receive the Internal Revenue Allotment (IRA) given to the previous MMA. Furthermore, MMDA also receives 5% of the total annual gross revenue of the preceding year net of the internal revenue allotment of the cities and municipalities.

## **3. Service Delivery Challenges in Metro Manila**

### ***3.1 Transport and Traffic Management***

Like all big cities in the world traffic management dominates Metro Manila’s development challenge. Deterioration of transport and traffic condition have always afflicted Metro Manila since the 1950s. The causes of the problem have always been the same. Simply put, traffic woes in Metro Manila stem primarily from 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. Initial findings reported in 1997 of the Metro Manila Urban Transportation Integration Study (MMUTIS) Project<sup>4</sup> have provided hard facts echoing the above factors causing Metro Manila's traffic congestion.

### *Insufficient Road System*

Major roads in Metro Manila are no longer sufficient to accommodate the rapidly rising traffic volume which have increased by more than 50 percent on the average during the last 15 years (Table 3). Private cars and trucks dominate traffic volume even in bus and jeepney-dominated major routes such as EDSA and Shaw Boulevard.

**Table 3**  
**Traffic Volume on Major Roads, 1980 and 1995**  
**(Vehicles/Day)**

Road (Location)	1980	1995		Ratio of Total Count 1995/1980	
	Total Count	Total Count	Car/ Truck		Jeepney/ Bus
1. EDSA (bet. Guadalupe & Buendia)	99,900	172,500	154,700	17,800	1.7
South Super Highway (int. Pres. Quirino Avenue)	72,900	113,700	111,300	2,400	1.6
2. Quezon Avenue (nr. Espana Rotonda)	53,300	102,500	68,400	34,100	2.0
3. Roxas Blvd. (intersecting P. Burgos)	67,800	82,300	74,100	8,200	1.2
4. Ortigas Avenue (intersecting Santolan)	51,500	76,300	72,900	3,400	1.5
5. Shaw Boulevard (intersecting Acacia Lane)	37,300	43,500	27,800	15,700	1.2

Source: 1990 JUMSUT and 1995 DPWH-Traffic Engineering Center (TEC); in JICA/MMUTIS, 1997

### *Accelerated Increase in Car Ownership*

The number of registered vehicles in Metro Manila more than doubled during the period 1980 to 1995 growing at an average rate of 6 percent annually (Table 4). As can be gleaned from the table, the increase has been more evident during the 90s

<sup>4</sup> The MMUTIS Project was launched in March 1996 with technical assistance from the Japan International Cooperation Agency (JICA). The Project, jointly undertaken by the Department of Transportation and Communication (DOTC), Metro Manila Development Authority (MMDA), National Economic and Development Authority (NEDA) and the University of the Philippines (UP), is based at the UP National Center for Transportation Studies (NCTS). The long-term objective of the Project is to establish and update transportation database that will aid in the formulation of a transportation master plan for Metro Manila to year 2015. The short-term objective is to prepare feasibility studies on priority projects that can be implemented within the present time to year 2005. The Project is expected to terminate in March 1999.

due to easier credit access for car financing and when the economy has recovered from a long-time slowdown.

**Table 4**  
**Number of Registered Vehicles in Metro Manila, 1980, 1990, 1995**

Type	1980	1990	1995	1980-1995	
				Ratio	% / Yr.
<b>Private</b>					
Motorcycles	36,854	50,159	73,014	2.0	4.7
Cars	218,964	297,094	410,814	1.9	4.3
Utility Vehicles	36,770	223,976	368,002	10.0	16.6
Buses	-	918	491	-	-
Trucks/Trailers	97,590	51,351	76,060	7.1	10.3
Sub Total	391,178	623,498	928,381	2.4	5.9
<b>For Hire</b>					
Motorcycles	4,801	16,418	34,478	7.2	14.0
Taxis	10,125	1,715	21,702	2.1	5.2
Cars	1,461	8,150	5,601	3.8	9.4
Utility Vehicles	27,202	27,659	53,362	2.0	4.6
Buses	3,578	4,329	7,824	2.2	5.4
Trucks/Trailers	8,797	3,009	4,344	0.9	-12.5
Sub Total	55,964	61,280	127,331	2.3	5.6
<b>TOTAL, MM</b>	<b>446,142</b>	<b>684,778</b>	<b>1,055,692</b>	<b>2.4</b>	<b>5.9</b>

Source of Basic Data: JICA/MMUTIS, 1997; Land Transportation Office (LTO)

At present, more than 40 percent of all registered vehicles in the country are plying in Metro Manila. This represents 1.1 million private and “for-hire” vehicles. Of these, almost half are privately-owned cars and utility vehicles. Household car ownership has doubly increased from 9.5 percent in 1980 to 19.7 percent in 1996 (Table 5). The percentage of household with more than one car has remained high and the adjoining areas of Metro Manila has closely followed the trend. Increase in household car ownership has been found to be correlated with rise in household income. Thus, MMUTIS projects car ownership to increase by 2 percent annually from 1996 to 2015 as population and income level continue to rise. The adjoining areas will increase to a higher rate of 5.1 percent.

#### *Increased Demand for Quality Public Transport Services*

Public transportation services are mainly provided by buses, jeepneys, taxis and tricycles. While the supply of these services had increased dramatically through the years (Table 6), traffic congestion has decreased the quality of service of these transport modes in terms of travel speed, riding comfort and in-vehicle air-quality. Although the number of air-conditioned bus units has increased in both the number of units and routes, in-vehicle crowding is still evident and only a few are well kept to provide comfort to the riding public. To satisfy the demand for better transport

services, the number of Tamaraw FX or shared taxi on fixed route has increased rapidly since 1995. On one hand, the addition of these utility vehicles provided an alternative mode of transport for passengers willing to pay higher than the normal fare for efficiency and travel comfort. On the other hand, it contributed further to the increase in the already high traffic volume and to the further worsening of the traffic situation in the metropolis.

**Table 5**  
**Car Ownership Structure, 1980 and 1996**

	Metro Manila		Adjoining Areas
	1980	1996	
% of Car-Owning Households	9.5	19.7	16.9
Average No. of Cars Per Car-Owning Household	1.4	1.3	1.2
% of Multiple Car-Owning Household	19.0	20.1	13.3

Source: JICA/MMUTIS (1997); MMUTIS Person Trip Survey

**Table 6**  
**Public Transportation Supply**  
**Estimated No. Operating Units, 1983 and 1996**

Mode	Service Area	1983	1996	1996/1983
Bus	Intra-city	4,400	9,600	2.18
	Inter-city	1,500	3,300	2.20
	TOTAL	5,900	12,900	2.19
Jeepney	Intra-city	29,300	57,400	1.96
	Inter-city	6,300	12,300	1.95
	TOTAL	35,500	69,700	1.96
Tricycle	Inside M. Manila	17,000	60,700	3.57
	Adjoining Areas	N.I.	56,600	N.I.
	TOTAL	N.I.	117,300	N.I.

Source of Basic Data: JICA/MMUTIS (1997)

Urban rail transport services are still limited. At present only the LRT Line 1 and the PNR provide rail transport services. But with the completion of the LRT lines 2 and 3, urban rail transit will take on a more important role in transport service in the metropolis by the turn of the century.

### **3.2 Land Use Planning and Urban Renewal**

Rapid urbanization over almost 30 years has altered Metro Manila's landscape as can be gleaned from the changes in the land use mix from 1972 to 1991 (Table 7). Residential land use currently predominate land use activity in the metropolis which used to be open space and other uses three decades ago. Recreation land uses including parks and sports area only comprise one percent in 1991 when it used to be

20 percent in 1980. A large percentage of these lands for open spaces and for other purposes have been used for housing uses.

**Table 7**  
**Land Use Classification in Metro Manila**

Land Use	1972		1980		1991	
	(Has.)	%	(Has.)	%	(Has.)	%
Residential	13,750	<b>28.0</b>	18,948	<b>29.4</b>	41,405	<b>65.0</b>
Commercial	530	<b>1.0</b>	2,573	<b>4.0</b>	1,911	<b>3.0</b>
Industrial	1,365	<b>3.0</b>	3,077	<b>4.7</b>	2,548	<b>4.0</b>
Institutional	1,800	<b>4.0</b>	2,892	<b>4.5</b>	3,185	<b>5.0</b>
Utilities			890	<b>1.4</b>	637	<b>1.0</b>
Open Space	30,980*	<b>64.0</b>	14,380	<b>22.3</b>	5,096	<b>8.0</b>
Agricultural			7,806	<b>12.1</b>	5,733	<b>9.0</b>
Cemetery/Memorial Parks					637	<b>1.0</b>
Recreation/Parks/Sports			13,012	<b>20.2</b>	637	<b>1.0</b>
Rivers/Waterways					1,911	<b>3.0</b>
Reclamation			671	<b>1.0</b>		
Agro-Industrial			236	<b>0.4</b>		
<b>TOTAL</b>	<b>48,425</b>	<b>100.0</b>	<b>64,445</b>	<b>100.0</b>	<b>63,700</b>	<b>100.0</b>
* open space and others						
Basic Sources: 1972 figures from Manosa (1974) NEDA Journal of Development, Vol 1/2 1981 figures from Metro Manila Commission (1983) 1991 figures from NCR Regional Development Plan (1993-1998)						

Residential land use cover a large portion of the whole metropolis. In spite of this large tract of land used for housing, the housing lack is still a major problem as manifested by the increased demand for rental housing and concomitantly the rise in rental rates and the increased number of squatter households.

Metro Manila's development has been largely characterized by indiscriminate land-use mix. While the MMDA has been tasked to rationalize and optimize land use planning in the metropolis, the granting of powers to local government units to formulate its own land-use plan under the Local Government Code has weakened efforts to rationalize relationship among various land-use plans of LGUs.

Part of addressing land-use problems in the metropolis is the redevelopment of decaying areas in Manila, Pasay and Quezon City. Urban renewal efforts are needed to facelift timeworn and environmentally deteriorated areas of the metropolis by rejuvenating urban functions by improving buildings, sites and services. The Central Manila Urban Renewal Redevelopment Plan is a pioneer effort to address urban decay in Manila particularly the Binondo and Chinatown area. Future efforts should be directed to other areas where serious urban deterioration is prominent through national government partnership as well as with the private sector as have been done in other cities abroad.

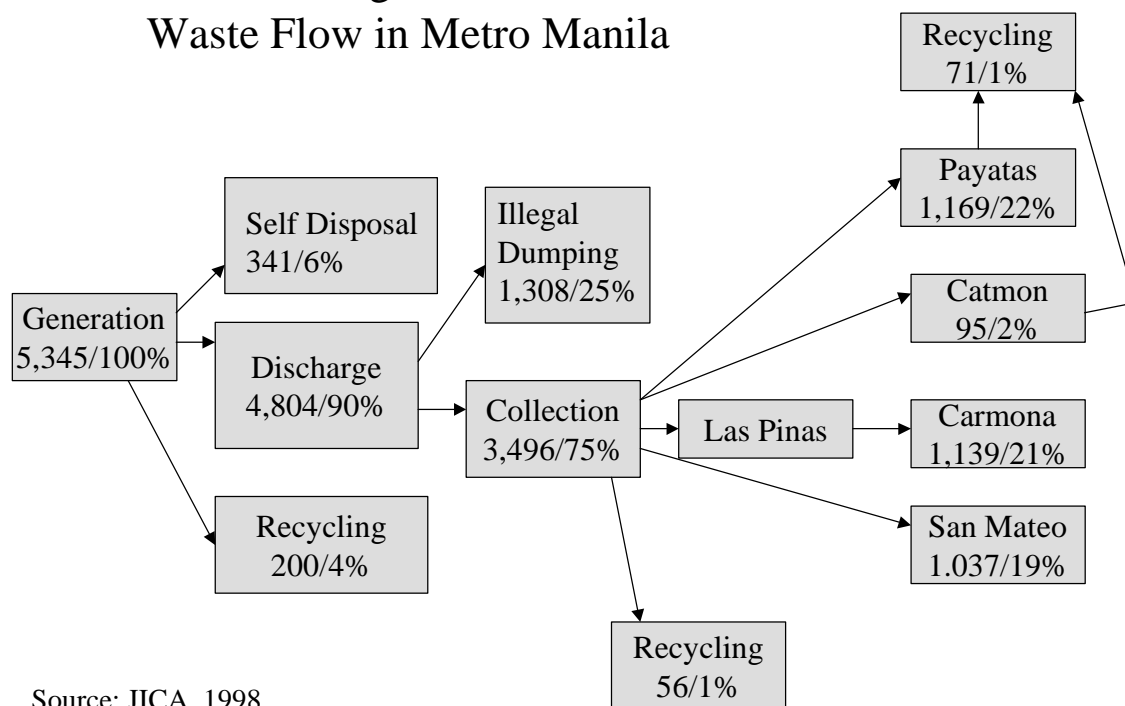
### 3.2 Solid Waste Management

Two major challenges face Metro Manila with respect to solid waste management. The first concerns the need to improve waste collection. The second is the need to address the problem of final disposal.

#### Waste Collection

Figure 1 shows the waste flow in Metro Manila based on the result of recent JICA study on solid waste management (JICA, 1998). Out of the 5,350 tons per day waste generated in Metro Manila, about 75 percent are collected while the rest are illegally dumped in open spaces or thrown in metropolitan waterways.

Figure 1  
Waste Flow in Metro Manila



Source: JICA, 1998  
Unit:ton/day

Under the current metropolitan arrangement, LGUs are responsible for waste collection while MMDA is primarily responsible for final disposal of waste collected. Collection coverage for 1997 among the 17 LGUs range from a low of 40 percent in the case of Navotas to a high of 98 percent in the case of Makati City. The disparity may be attributed to the fiscal capacity of the respective LGUs. LGUs which have high collection coverage performance are those which have fully or partly consigned waste collection and haulage to private companies. JICA (1998) has projected collection coverage of LGUs in the metropolis to increase or approximate full coverage with greater privatization of collection and haulage services during the next decade.

### *Waste Disposal*

One of the biggest challenges in solid waste management in Metro Manila is the identification and maintenance of final disposal sites. At present, there are four available sites for final waste disposal in the metropolis: the two open dumpsites in Payatas and Catmon and the two landfill sites in San Mateo and Carmona. Payatas and Catmon sites are now being considered for closure because of health and environmental risks while the Carmona site is under threat of closure due to complaints from the nearby residents and the municipal government. The San Mateo landfill will reach its full capacity by 2004 but if the other sites will be closed then its full capacity will be reached before the turn of the century. In this regard, the identification and development of new landfill site will be a critical concern in the immediate term. The recently prepared study/master plan for solid waste management in Metro Manila by JICA (JICA,1998) has identified and made a technical evaluation of candidate disposal sites. Five sites were identified and ranked: Pintong Bocaue (Rizal), Sea landfill in the Navotas offshore area, Kalawakan (Bulacan), Maragondon (Cavite) and Bacolor, Pampanga. The development of any of these sites will be critical given the circumstances plaguing the existing disposal sites.

### *3.4 Flood Control*

The occurrence of both big and isolated flash floods is one of the biggest problems facing the metropolis. Reasons for flooding are quite multitudinous. Some of the identified causes include the overflow of major river systems during intense rain or storm, poor local drainage in terms of inadequate capacity and maintenance as well as illegal encroachment on river and other natural channels by squatters, business establishments and residential houses (MMDA, HUDCC, LOGODEF, 1995). There are also institutional problems of coordination between DPWH, MMDA and LGUs which have caused delayed response to flooding and hindered a more proactive approach to solve or to mitigate flooding in the known flood prone areas. Moreover, there is an inadequate regulatory policy with respect to subdivision and housing development with respect to the provision of sound and sufficient drainage facilities.

Flood prone areas in Metro Manila include the KAMANAVA area (Kaloookan, Malabon, Navotas, Valenzuela), Central Metro Manila (Tondo, Sta. Cruz, Sampaloc, Sta. Mesa, San Andres, Balon-Bato, Talayan-Tatalon and San Juan-Mandaluyong), Upper Marikina area, and North Laguna Lakeshore (Manggahan and Taguig-Pateros).

Addressing the problems of flooding in Metro Manila is a concern of a number of national and local government instrumentalities. The Department of Public Works and Highways (DPWH) is the major implementor of all flood control and drainage projects. DPWH- National Capital Region Office provides administrative and technical supervision over the operation and maintenance of completed flood control and drainage projects. With the establishment of the MMDA, this responsibility including the operation and maintenance of pumping stations, and floodgates, shall be transferred to MMDA within a transition period of about two years. At present, the turnover of DPWH functions and facilities to MMDA relative to flood control has yet to be formalized. The acquisition of the necessary technical and management capabilities of the MMDA from the DPWH is yet to be determined and evaluated before a turnover shall be effected.

The nature of the flooding problem in the metropolis is multidimensional as it does not only require infrastructure improvement but also institutional approaches and regulatory policies. Thus, program and policy coordination may have to be done by MMDA with agencies that have roles to play in flood mitigation including DENR/EMB, HLURB, MWSS, PAGASA, DND NEDA, LLDA and the LGUs, among others.

#### **4. Institutional Issues: The Metro Manila Development Authority (MMDA)**

The recent creation of the MMDA has provided for a metropolitan body in Metro Manila with greater implementation and coordination powers than its predecessor (MMA). While it may still be relatively premature to evaluate the effectiveness of the organization in tackling metropolitan issues, there are already some areas where policy interventions may be necessary.

##### *MMDA Organization and Manpower Concerns*

There is a seeming perception among LGUs in Metro Manila of MMDA's incapability to command respect and authority over them. A large part of this attitude is brought about by MMDA's current problem in the organizational structure as well as the distribution of its manpower personnel in the whole organizational system.

The current organizational structure and staffing pattern of MMDA personnel need a serious re-thinking so that MMDA can handle the big functions and responsibilities the law has required it to responsibly undertake. The current lopsided distribution of personnel in favor of the environmental sanitation center (ESC) taking ninety percent (9,645) of the total MMDA personal service items (10,820) would leave the other functions of the institution unattended. Recently, MMDA has submitted to the Department of Budget and Management a proposed reorganization plan. The plan seeks to beef up personnel complement in the technical departments especially in the office of planning, operations and administration and rationalize the number of personnel in the ESC. The current ESC is largely composed of Metro Hardinero or street sweepers. Inasmuch as the LGUs have their respective street sweepers in their localities, then there would be no need for a large number of these personnel to be hired by the MMDA. While the proposal has reduced the number of total personnel because of the reduction in the number of ESC personnel, the creation of technical and managerial positions in the other offices will have huge financial implications on the agency's budget. More importantly, there may be a serious need for the national government to further evaluate MMDA's proposed reorganization plan. This to ensure that any increase and or reallocation of personnel items among the agency's offices will improve MMDA's capacity to fulfill its roles and functions both from the standpoint of effectiveness and efficiency.

There are other forms of service provision that will not require an enormous increase in personnel complement but can effectively and efficiently deliver the required services. The establishment of special metropolitan corporations can be a promising alternative to overcome internal weaknesses in service provision due to lack of technically competent personnel. As have been the practice in other



metropolitan bodies abroad with much success, MMDA can explore this mode of service delivery. For instance, in Metropolitan Toronto, the Metro Toronto Corporation with its agencies, boards and commissions provides specialized urban service functions such as licensing, zoo maintenance, performing arts center administration, police services, transportation, family and child service, among others. Private subcontracting of certain services can also be considered while the legality of corporate powers of a metropolitan body like MMDA is yet unclear or unresolved.

**Table 8**  
**Existing and Proposed MMDA Manpower Complement**

	<b>Current PSI*</b>	<b>Proposed to DBM</b>
Office of Chairman/ General Manager	178	257
Office of AGM for Finance and Administration	347	656
Office of AGM for Planning	69	240
Office of AGM for Operations	581	5,900
Environmental Sanitation Center	9,645	1,000
<b>TOTAL</b>	<b>10,820</b>	<b>8,053</b>

Basic Source of Data: MMDA Staffing Pattern

\* Personnel Service Item as of 30 April 1998

#### *MMDA Leadership and Functional Relations With LGUs and National Agencies*

One of the criticisms on the functions and responsibilities of MMDA under RA 7295 is the use of the word “coordinate” which finds weakness in practice. For instance, MMDA’s function in coordinating land use classification and zoning means almost nothing because the LGUs have the authority anyway to reclassify land as provided to them under the 1991 Local Government. Coordination in this case is often reduced to MMDA becoming a mere center of information on any changes in land classification by the LGU. An integrated physical planning for Metro Manila, which is the whole rationale for such task, becomes difficult for MMDA to effectively carry out because the function in the law does not warrant full responsibility and authority.

The weak development planning and coordination in Metro Manila was worsened by the Code’s total withholding of the review of LGU budget from MMDA by giving the responsibility to DBM. This has institutionalized the disjointed and uncoordinated programming and budgeting process in the metropolis and prevented the maximization of the utilization of Metro Manila’s resources. If the line of responsibility between MMDA and the LGUs is clear and recognized with respect to planning, programming and budgeting functions then expenditure plans especially for capital intensive projects in the metropolis can be strategically formulated. The same lack of institutional linkage is evident with the sectoral line agencies so that it is difficult for the MMDA to influence the latter’s priority thrusts as it affects the metropolis.

The supervisory power of the president over the LGUs through the Department of Interior and Local Government presents another level of coordination and monitoring among LGUs aside from the MMDA. This has caused leadership and coordinative competition and in some instances made scheduling and programming of activities involving LGUs more difficult.

The appointment of the MMDA Chairman should be given a serious thought -- the same fervency as appointing a major cabinet position. The MMDA leadership must be able to put political leaders together while making the institution more credible to earn the command and respect from the LGUs it coordinates.

## **6. Concluding Remarks**

Metro Manila is and will be the country's premier metropolis because of its long history and development. The cumulative development of the metropolis through centuries has built a solid foundation for its being the premier city in the country and which new metropolises will find difficult to outdo or outrank.

History tells us that the problems of Metro Manila have to be dealt with at its roots: addressing the uneven development between it (Metro Manila) and the geographic regions. Developing the metropolis should be done simultaneously with the other equally promising cities in the country as well as promoting growth in the countryside. On the other hand, a sound and respectable metropolitan institution, politically and technically armed to address the problems and needs of the metropolis, is critical if success is to be achieved.

In the context of the global economy and the future competition of nations in terms of effective and efficient megacities in the 21<sup>st</sup> century, Metro Manila's strive to be "humane and world class" may not just be a vision but a necessity for the Philippines to be competitive with the rest of the world. It is, after all, what a megalopolis should be.

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