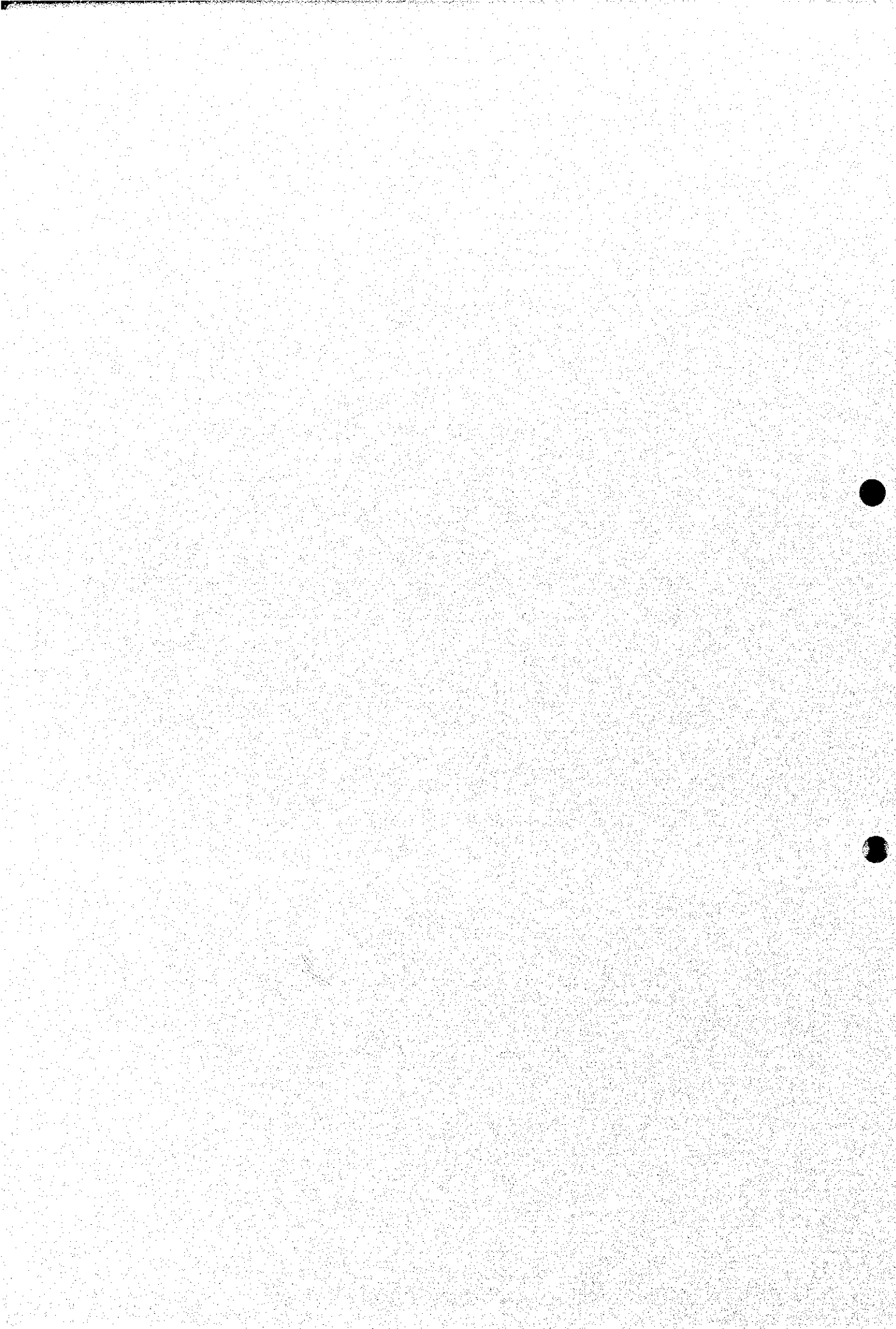


CHAPTER 13

BUDGET AND FINANCE



13. BUDGET AND FINANCE

13.1 Socioeconomic Indicators and Public Budget

13.1.1 Socioeconomic Indicators of Metro Manila

Table 13.1 shows the share of Metro Manila in the whole Philippines in terms of population, area, production and local government revenue. Metro Manila are sharing about 14 % of the country's population and 32 % of the GDP. The total budget revenue of 17 LGUs and MMDA is 22,096 million Peso amounting to 24 % of total local government revenue in the Philippines, which is 91,779 million Peso in 1997. In Metro Manila, per capita GRDP is 65,495 Peso in 1995 and per capita local government revenue is 2,338 Peso in 1997, which are 2.35 and 1.75 times as large as country's average, respectively.

Table 13.1 Share of Metro Manila in Whole Philippines

	Whole Philippines	Metro Manila	Share of Metro Manila
Population in 1995 (thousand persons)	68,614.00	9,452.00	13.78%
Land Area (sq. km)	300,000.00	636.50	0.21%
GDP or GRDP in 1995 (million Peso at current prices)	1,906,328.00	619,061.00	32.47%
Per Capita GDP or GRDP in 1995 (Peso at current prices)	27,783.37	65,495.24	235.74%
Total LGU Revenue in 1995's Budget* (million Peso)	66,309.00	14,327.91	21.61%
Share of Revenue in GDP or GRDP	3.48%	2.31%	
Total LGU Revenue in 1997's Budget* (million Peso)	91,779.00	22,096.53	24.08%
LGU Revenue per Person in 1997's Budget (peso)	1,337.61	2,337.76	174.77%
Internal Revenue Allotment from National Government in 1997 (million Peso)	71,049.00	5,805.38	8.17%
Internal Revenue Allotment per Person from National Government in 1997 (Peso)	1,035.49	614.20	59.31%

Note: Brangay revenue is not included.

Source: NSO, DBM

Table 13.2 Basic Socioeconomic Indicators of Metro Manila and the Philippines

	1988	1989	1990	1991	1992	1993	1994	1995	1996
1 Population (thousand)									
1 Philippines	58,720	60,100	61,480	62,870	65,340	66,980	68,620	70,270	
2 NCR			8,117	8,317	8,517	8,718	8,918	9,118	
share(%) of NCR			13%	13%	13%	13%	13%	13%	
2 GDP/GRDP (in million Peso)									
1 Philippines (at constant 1985 prices)	658,581	699,448	720,690	716,522	718,941	734,156	766,368	802,866	848,451
Real Growth Rate		6.21%	3.04%	-0.58%	0.34%	2.12%	4.39%	4.76%	5.68%
Philippines (at current prices)	799,183	925,444	1,077,237	1,248,011	1,351,559	1,474,457	1,692,932	1,906,328	2,196,595
2 NCR (at 1985 constant prices)	197,266	214,663	221,753	220,972	215,465	216,149	227,348	240,121	256,816
Real Growth Rate		8.82%	3.30%	-0.35%	-2.49%	0.32%	5.18%	5.62%	6.95%
NCR (at current prices)	251,164	298,589	347,609	409,778	437,730	475,312	548,782	619,061	720,058
share(%) of NCR	30%	31%	31%	31%	30%	29%	30%	30%	30%
3 GDP per Capita (Peso)									
1 Philippines (at constant 1985 prices)	11,216	11,638	11,722	11,397	11,003	10,961	11,168	11,425	
		3.77%	0.72%	-2.78%	-3.46%	-0.38%	1.89%	2.30%	
2 NCR (at constant 1985 prices)			27,320	26,569	25,297	24,795	25,494	26,336	
				-2.75%	-4.79%	-1.98%	2.82%	3.30%	
Level (%) of NCR against National Average			233%	233%	230%	226%	228%	231%	
4 PRINCIPAL INDICATORS									
1 Consumer Price Index (1985=100)	113.70	125.80	141.70	166.80	181.70	166.80	181.70	195.40	
2 Exchange Rate (Peso per US\$ 1.00)	21.07	21.72	24.29	27.76	25.61	27.76	25.61	26.99	

13.1.2 Economic Growth and Government Revenue

- 1) The national government revenue increased at 3.8 times, from 112,861 million Pesos in 1988 to 431,304 million Pesos in 1996 and its share of GDP increased 14.1 % in 1988 to 19.6 % in 1996.
- 2) On the other hand, the local government revenue in Metro Manila consisting the revenue of MMDA and 17 LGUs increased at 5.6 times. The share increased to 2.5 % in 1996, which is almost twice compared with 1.3 % in 1988.

Table 13.3 National Government Revenue and LGU's Revenue in Metro Manila

	Amount (M Pesos)								
	1988	1989	1990	1991	1992	1993	1994	1995	1996
1 NATIONAL GOVERNMENT REVENUE (million Peso)									
1 Tax Revenue	90,352	122,462	151,698	182,275	208,706	230,170	271,305	309,978	370,356
2 Non-tax Revenue	22,509	29,948	29,204	38,512	34,008	30,235	64,855	50,237	60,948
	112,861	152,410	180,902	220,787	242,714	260,405	336,160	360,215	431,304
Share of GDP	14.12%	16.47%	16.79%	17.69%	17.96%	17.66%	19.86%	18.90%	19.64%
Revenue per Person (Peso)	1,922	2,536	2,942	3,512	3,715	3,888	4,899	5,126	
2 LOCAL GOVERNMENT REVENUE in NCR(million Peso)									
1 MMDA	607	799	924	1,100	1,093	825	1,029	1,164	1,725
2 LGUs in NCR	2,581	3,180	4,630	5,907	5,099	8,520	12,066	13,844	16,176
	3,188	3,979	5,554	7,007	6,192	9,345	13,095	15,008	17,901
Share of GRDP in NCR	1.27%	1.33%	1.60%	1.71%	1.41%	1.97%	2.39%	2.42%	2.49%
Revenue per Person (Peso)			684	842	727	1,072	1,468	1,646	

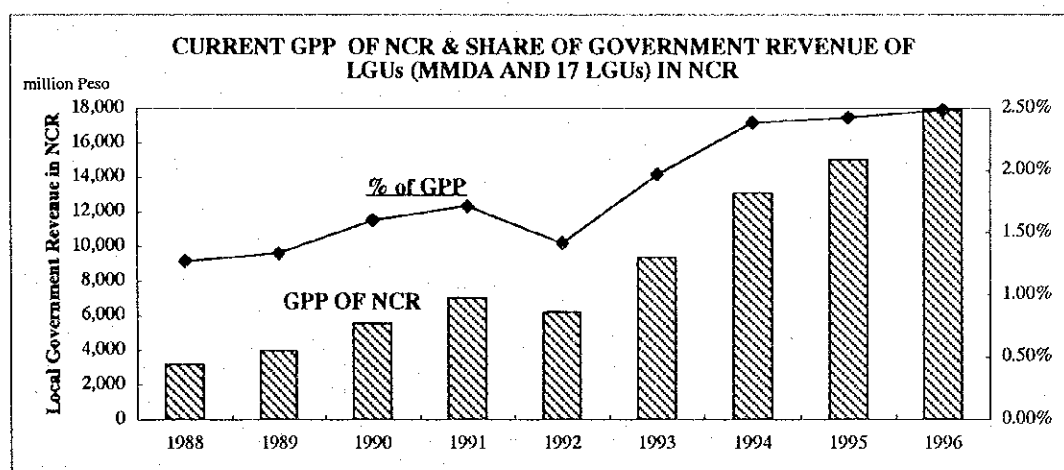
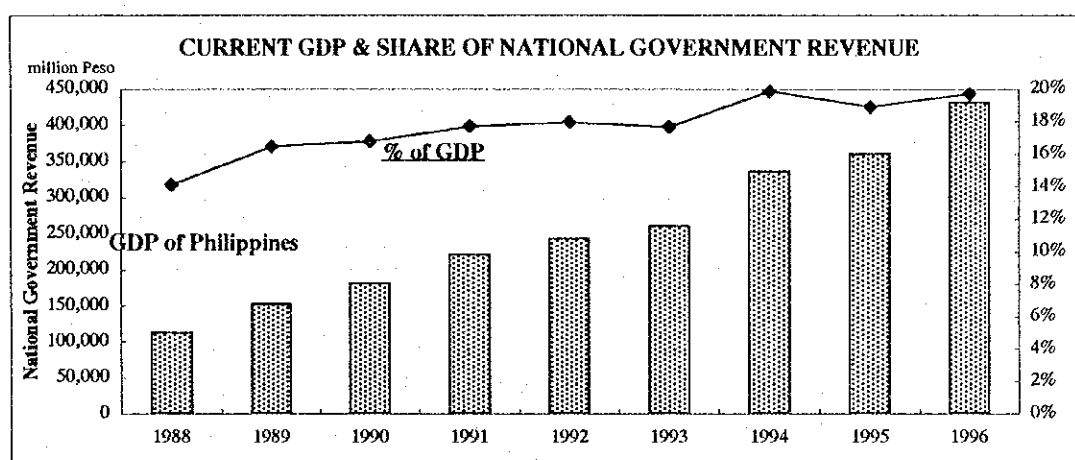


Figure 13.1 Current GDP and Government Revenue (1988 - 1996)

13.1.3 Public Budget

- 1) The total public budget revenue is 634 billion Pesos, amounting to 29 % of GDP in 1996. National and LGUs revenues share 70 % and 15 % of the total budget revenue in the Philippines respectively in 1997 budget (refer to Table 13.4).
- 2) 85-90 % of national government revenue is collected from taxes. Among taxes, the share of "Net Income and Profits" is largest, 37.5 % of the total revenue in 1997's budget (refer to Table 13.5).
- 3) 40 % of tax revenue from "Net Income and Profits" is allocated from national government to LGUs including MMDA as an Internal Revenue Allotment (IRA) based on the Local Government Code of 1991.

Table 13.4 Public Budget Revenue in the Philippines (million Pesos)

	Revenue			Share		
	1995	1996	1997	1995	1996	1997
National Government	360,215	431,304	485,110	69.9%	68.0%	69.7%
Major Government Corporation	89,365	126,159	139,643	17.3%	19.9%	20.1%
Other Non-financial Corp.	32,537	35,373	25,923	6.3%	5.6%	3.7%
Local Government Units	75,582	82,881	104,174	14.7%	13.1%	15.0%
Others & Adjustment	-42,072	-41,732	-59,246	-8.2%	-6.6%	-8.5%
Total	515,627	633,985	695,604	100.0%	100.0%	100.0%
GDP (current price)	1,906,328	2,189,873				
Share of Budget Revenue of GDP	27.0%	29.0%				

Source: DBM

Table 13.5 National Government Budget Revenue by Source (million Pesos)

	Revenue			Share		
	1995	1996	1997	1995	1996	1997
Tax Revenue						
Tax on Net Income & Profits	112,364	140,201	182,000	31.2%	32.5%	37.5%
Tax on Property	417	465	657	0.1%	0.1%	0.1%
Tax on Domestic Goods & Services	99,844	120,899	138,033	27.7%	28.0%	28.5%
Tax on Intn'l Trade & Transactions	97,353	108,791	129,905	27.0%	25.2%	26.8%
Sub Total, Tax Revenue	309,978	370,356	450,595	86.1%	85.9%	92.9%
Nontax Revenue						
Operating & Service Income	12,019	12,422	13,468	3.3%	2.9%	2.8%
Income from Public Enterprises	5,933	9,747	5,581	1.6%	2.3%	1.2%
Miscellaneous Income	7,236	16,478	10,183	2.0%	3.8%	2.1%
Capital Revenue	22,770	21,516	4,428	6.3%	5.0%	0.9%
Grants & Aids	1,877	144	157	0.5%	0.0%	0.0%
Extraordinary Income	402	641	698	0.1%	0.1%	0.1%
Sub Total, Nontax Revenue	50,237	60,948	34,515	13.9%	14.1%	7.1%
Total	360,215	431,304	485,110	100.0%	100.0%	100.0%

Source: DBM

- 4) Total budget revenue of all LGUs in the Philippines is 91.8 billion Pesos in 1997, excluding the Barangay revenue (refer to Table 13.6).
- 5) Share of IRA from national government is large, almost two third of the total revenue of LGUs. Followed by IRA, the revenue from property tax and other local tax are contributing 9.0 % and 15.6 % of the total revenue in 1997. In Metro Manila, however, the share of each revenue source shows different ratio from that in national average (refer to Figure 13.2 and 13.3).

Table 13.6 LGU's Budget Revenue in the Philippines by Source (million Pesos)

	Revenue			Share		
	1995	1996	1997	1995	1996	1997
Tax Revenue						
Internal Revenue Allotment *	42,652	45,935	58,159	64.3%	63.6%	63.4%
Property Tax	5,558	7,154	8,290	8.4%	9.9%	9.0%
Local Tax	9,164	8,824	14,292	13.8%	12.2%	15.6%
Sub Total, Tax Revenue	57,374	61,913	80,741	86.5%	85.7%	88.0%
Nontax Revenue						
Operating & Service Income	5,292	6,414	7,486	8.0%	8.9%	8.2%
Capital Revenue	341	623	305	0.5%	0.9%	0.3%
Grants	695	1,286	1,329	1.0%	1.8%	1.4%
Extraordinary Income	134	101	290	0.2%	0.1%	0.3%
Borrowing	1,159	863	604	1.7%	1.2%	0.7%
Interfund Transfers	72	103	43	0.1%	0.1%	0.0%
Other Receipts	1,242	920	981	1.9%	1.3%	1.1%
Sub Total, Nontax Revenue	8,935	10,310	11,038	13.5%	14.3%	12.0%
Total	66,309	72,223	91,779	100.0%	100.0%	100.0%

Note: * Brangay share is not included.

	1995	1996	1997
Internal revenue Allotment of Barangay	9,273	10,659	12,890

Revenue Source of LGUs in Philippines

1. The revenue from the IRA shares a large portion in the LGUs revenue, which is 75.8%, 44.8% and 73.8% in Provinces, cities and Municipalities respectively.
2. In the Cities, the share of property tax and local tax is larger, compared with that in Municipalities and Provinces.

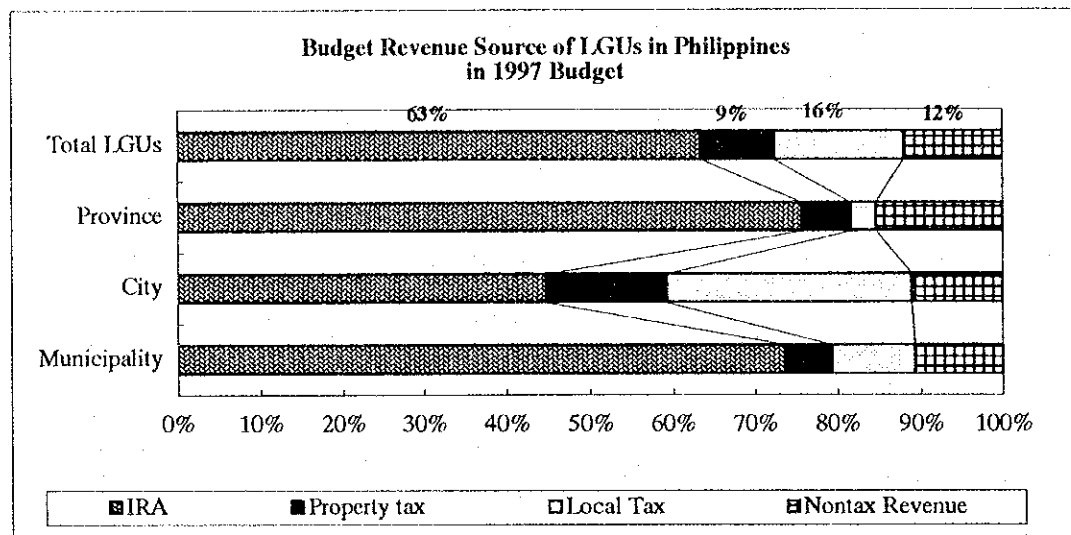


Figure 13.2 Revenue Source of LGUs in the Philippines in 1997 Budget

Revenue Source of LGUs in NCR

1. The revenue from the Local Taxes shares a large portion in the LGUs revenue in NCR, which is 44% in an average.
2. The share of IRA is 22% in NCR, which is much smaller that in national average of 63%.

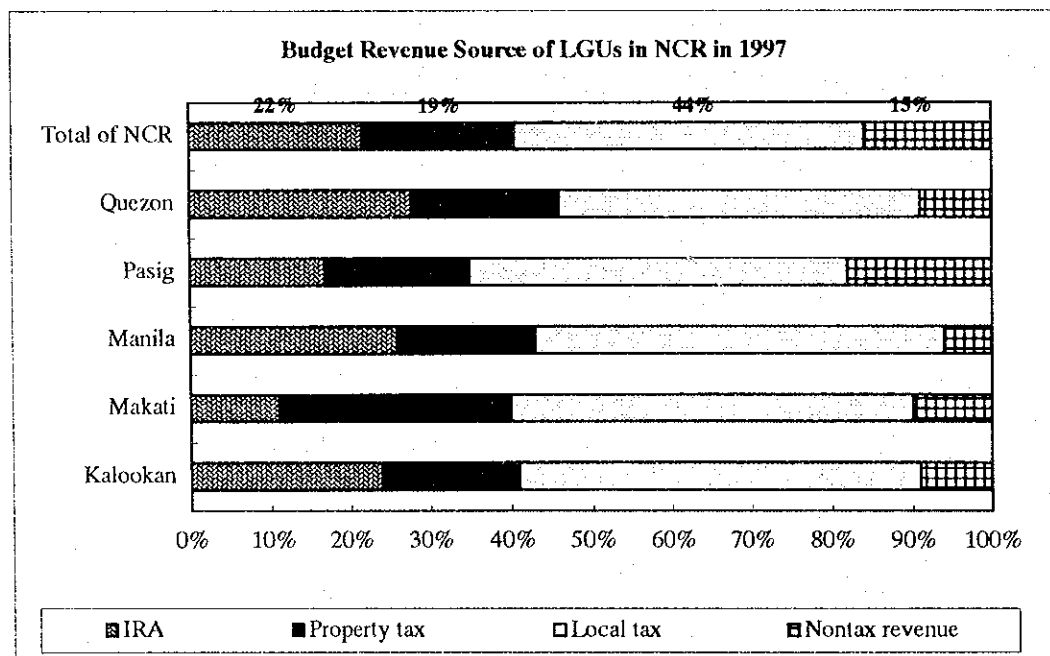


Figure 13.3 Revenue Source of LGUs in the NCR in 1997 Budget

Table 13.7 Municipality Revenues in the Philippines by Sources (million Peso)

	Revenue			Share		
	1995	1996	1997	1995	1996	1997
Tax Revenue						
Internal Revenue Allotment	17,966	19,611	24,884	73.2%	71.6%	73.8%
Property Tax	1,182	1,638	1,890	4.8%	6.0%	5.6%
Local Tax	2,481	2,677	3,353	10.1%	9.8%	9.9%
Sub Total, Tax Revenue	21,629	23,926	30,127	88.1%	87.4%	89.3%
Nontax Revenue						
Operating & Service Income	1,830	2,399	2,783	7.5%	8.8%	8.2%
Capital Revenue	38	188	33	0.2%	0.7%	0.1%
Grants	156	145	155	0.6%	0.5%	0.5%
Extraordinary Income	53	45	213	0.2%	0.2%	0.6%
Borrowing	310	265	147	1.3%	1.0%	0.4%
Interfund Transfers	15	21	5	0.1%	0.1%	0.0%
Other Receipts	516	396	277	2.1%	1.4%	0.8%
Sub Total, Nontax Revenue	2,918	3,459	3,613	11.9%	12.6%	10.7%
Total	24,547	27,385	33,740	100.0%	100.0%	100.0%

Table 13.8 City Revenues in the Philippines by Sources (million Peso)

	Revenue			Share		
	1995	1996	1997	1995	1996	1997
Tax Revenue						
Internal Revenue Allotment	11,549	12,573	15,457	47.0%	48.4%	44.8%
Property Tax	3,343	4,495	5,016	13.6%	17.3%	14.5%
Local Tax	6,303	5,639	10,230	25.7%	21.7%	29.6%
Sub Total, Tax Revenue	21,195	22,707	30,703	86.3%	87.3%	88.9%
Nontax Revenue						
Operating & Service Income	2,475	2,728	3,183	10.1%	10.5%	9.2%
Capital Revenue	55	148	91	0.2%	0.6%	0.3%
Grants	47	24	27	0.2%	0.1%	0.1%
Extraordinary Income	60	31	46	0.2%	0.1%	0.1%
Borrowing	459	10	10	1.9%	0.0%	0.0%
Interfund Transfers	31	55	38	0.1%	0.2%	0.1%
Other Receipts	231	294	439	0.9%	1.1%	1.3%
Sub Total, Nontax Revenue	3,358	3,290	3,834	13.7%	12.7%	11.1%
Total	24,553	25,997	34,537	100.0%	100.0%	100.0%

Table 13.9 Province Revenues in the Philippines by Sources (million Peso)

	Revenue			Share		
	1995	1996	1997	1995	1996	1997
Tax Revenue						
Internal Revenue Allotment	12,688	13,755	17,818	75.7%	73.0%	75.8%
Property Tax	1,033	1,021	1,383	6.2%	5.4%	5.9%
Local Tax	380	508	710	2.3%	2.7%	3.0%
Sub Total, Tax Revenue	14,101	15,284	19,911	84.1%	81.1%	84.7%
Nontax Revenue						
Operating & Service Income	987	1,286	1,520	5.9%	6.8%	6.5%
Capital Revenue	248	287	181	1.5%	1.5%	0.8%
Grants	492	1,117	1,147	2.9%	5.9%	4.9%
Extraordinary Income	21	25	31	0.1%	0.1%	0.1%
Borrowing	391	588	447	2.3%	3.1%	1.9%
Interfund Transfers	26	27	0	0.2%	0.1%	0.0%
Other Receipts	495	230	265	3.0%	1.2%	1.1%
Sub Total, Nontax Revenue	2,660	3,560	3,591	15.9%	18.9%	15.3%
Total	16,761	18,844	23,502	100.0%	100.0%	100.0%

13.1.4 Internal Revenue Allotment (IRA)

(1) Internal Revenue Allotment of LGUs from National Government

1) The total annual internal revenue allotments to the LGUs are determined on the basis of the collection of national internal revenue taxes as follows (ART 378 of Local government Code 1991):

- for the first year of effectivity of the Code (1992), 30 %
- for the second year, 35 %; and
- for the third year, and thereafter, 40 %

2) The total IRA is allocated to all LGUs based on the following shares (ART 382):

- Provinces 23 %
- Cities 23 %
- Municipalities 34 %; and
- Barangays 20 %

3) The share of individual province, city and municipality is determined on the basis of:

- Population 50 %
- Land area 25 %; and
- Equal sharing 25 %

The individual shares in IRA of each LGU is automatically released direct to the provincial, city, municipal or barangay treasurer on a quarterly basis.

4) 20 % IRA of LGUs shall be allocated to development projects.

Table 13.10 Internal Revenue Allotment in the Philippines (million Pesos)

	Budget			Share		
	1995	1996	1997	1995	1996	1997
Municipalities	17,966	19,611	24,884	34.9%	34.6%	35.0%
Cities	11,549	12,573	15,457	22.4%	22.2%	21.8%
Provinces	12,688	13,755	17,818	24.6%	24.3%	25.1%
Barangays	9,273	10,659	12,890	18.0%	18.8%	18.1%
Total of IRA (A)	51,476	56,598	71,049	100.0%	100.0%	100.0%
Share (A/B)	45.8%	40.4%	39.0%			
National Government Revenue						
Tax on Net Income & Profit (B)	112,364	140,201	182,000			
Total						

Source; DBM

13.1.5 Contributions of LGUs to MMDA

- 1) Mandatory contributions from component LGUs in the NCR are equivalent to 5 % of the total annual gross revenue less the IRA of the preceding year.
- 2) This contribution started from April 1, 1995. At the same time, transfer of real property tax (45 % of the total property taxes collected by LGUs) was released.
- 3) LGUs submit the gross revenue statements certified for the preceding and current year to the Department of Budget and Finance (DBM) on February of each year. Based on those statements, 5 % contribution is monthly remitted to MMDA on or before 20th day of each month. In case of failure to remit, the DBM, upon request of Chairman of MMDA, causes its disbursement of the same to MMDA, chargeable against the IRA of the city or municipality concerned.

Table 13.11 Contribution of LGUs to MMA/MMDA in NCR (million Pesos)

	ACTUAL					
	1991	1992	1993	1994	1995	1996
Real Property Tax	302	732	366	473	148	0
15 % Statutory Contribution	430	0	0	0	0	0
5% MMDA Share	0	0	0	0	221	373
Total of LGU allotment	732	732	366	473	369	373
Share of Total Revenue	66.5%	66.9%	44.4%	46.0%	31.7%	24.0%
Total Revenue of MMA/MMDA	1,100	1,094	825	1,029	1,164	1,552

source: DBM

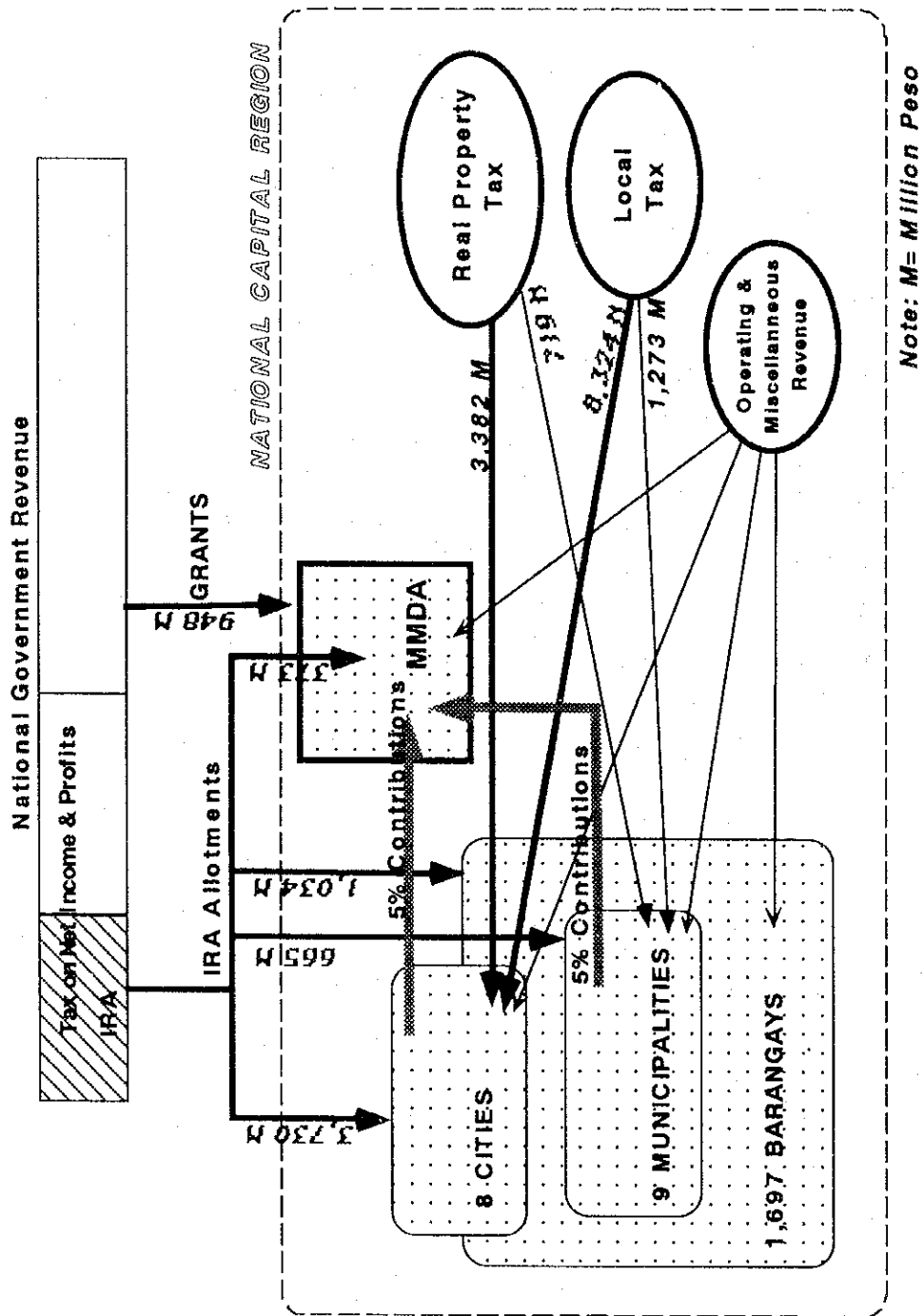


Figure 3.4 Flow of Budget Revenue of 17 LGUs and MMDA

13.2 Budgetary Condition of MMDA and 17 LGUs in Metro Manila

The budgetary conditions of MMA/MMDA and 17 LGUs are collected through the following sources:

- Department of Budget and Finance (DBM)
- MMDA; and
- Financial Survey of MMDA and LGUs in Metro Manila by JICA and MMDA (May - July 1997)

13.2.1 Budgetary Revenue of MMDA and 17 LGUs

Table 13.12, 13.13, 13.14, 13.15 and 13.16 are compiled by using the data in "Budget of Expenditures and Source of Financing" by DBM.

Table 13.14 shows the revenue of MMDA and 17 LGUs in the 1997's budget, which vary in budgetary scale. The three large cities, Manila, Quezon and Makati, receive 48 % of total budget revenue of LGUs in Metro Manila. The revenues of Manila, Quezon and Makati are 3,720 million Pesos (17.0 %), 3,566 million Pesos (16.3 %) and 3,358 million Pesos (15.3 %) respectively in 1997. MMDA is the fourth gainer of budget revenue and shares 7.2 % of the total revenue.

Regarding the revenue sources of LGUs and MMDA, MMDA receives revenue mostly from dependent sources such as grant from national government, Internal Revenue Allotment (IRA) and LGU Contributions. On the other hand, the sources of LGUs are rather independent. The share from property tax, other local taxes and operating miscellaneous revenues are more than 70 % in most LGUs. Usually in the Philippines, the share of IRA of local government budgets are 75 %, 45 % and 70 % for provinces, cities and municipalities, respectively. The local governments except in Metro Manila highly depend their source of revenue on the IRA. (See Table 13.6, 13.7, 13.8 and 13.9)

Table 13.12 Revenue of LGUs in the NCR, 1995 (million Pesos)

Metropolitan Manila Area (NCR)	Tax Revenue (1995)				Non-tax Revenue						Total receipts	Total expend- iture	Share		
	Internal revenue allotment	Real property tax	Local tax	Total tax revenue	Operating & miscellaneous revenue	Capital revenue	Grants	Extraor- dinary income	Borrowing	Inter-fund transfers				Other receipts	Total Non-tax Revenue
Provinces	311.36	0.00	0.00	311.36	36.00	0.00	137.00	0.00	0.00	0.00	239.00	412.00	723.36	1,363.00	5.0%
Cities															
1 Kalookan City	358.83	311.00	289.00	958.83	54.00	0.00	0.00	0.00	0.00	0.00	6.00	60.00	1,018.83	1,018.83	7.1%
2 City of Makati	262.04	506.00	1,007.00	1,775.04	250.00	0.00	0.00	0.00	0.00	0.00	0.00	250.00	2,025.04	2,025.00	14.1%
3 Manila	715.24	541.00	1,162.00	2,418.24	279.00	1.00	0.00	0.00	0.00	0.00	0.00	280.00	2,698.24	2,698.00	18.8%
4 City of Mandaluyong	151.42	126.00	258.00	535.42	43.00	0.00	0.00	5.00	0.00	0.00	0.00	48.00	583.42	581.00	4.1%
5 City of Muntinlupa	58.52	47.00	162.48	268.00	54.00	0.00	0.00	0.00	120.00	0.00	0.00	174.00	442.00	442.00	3.1%
6 Pasay City	191.85	101.24	212.00	505.09	51.94	0.00	0.00	0.00	0.00	0.00	0.00	51.94	557.03	556.05	3.9%
7 Pasig	218.65	116.00	240.00	574.65	92.00	0.00	0.00	0.00	0.00	0.00	0.00	92.00	666.65	666.65	4.7%
8 Quezon City	755.14	665.00	1,551.00	2,971.14	321.00	0.00	0.00	0.00	0.00	0.00	30.00	351.00	3,322.14	3,322.00	23.2%
Total, City	2,711.69	2,413.24	4,881.48	10,006.41	1,144.94	1.00	0.00	5.00	120.00	0.00	36.00	1,306.94	11,313.35	11,309.53	79.0%
Municipalities															
9 Las Pinas	64.02	39.00	133.00	236.02	36.00	0.00	0.00	0.00	0.00	0.00	7.00	43.00	279.02	279.02	1.9%
10 Malabon	60.57	24.18	31.17	115.92	24.43	0.00	0.00	0.00	0.00	0.00	11.24	35.67	151.59	164.71	1.1%
11 Marikina	64.37	42.00	95.00	201.37	36.00	0.00	0.00	0.00	100.00	0.00	0.00	136.00	337.37	363.00	2.4%
12 Navotas	41.43	35.00	9.00	85.43	14.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00	99.43	116.00	0.7%
13 Paranaque	64.76	109.00	323.00	496.76	25.00	0.00	0.00	0.00	0.00	0.00	292.00	317.00	813.76	813.76	5.7%
14 Pateros	14.82	2.00	4.00	20.82	3.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	23.82	24.00	0.2%
15 San Juan	29.71	22.00	76.00	127.71	16.00	0.00	25.00	0.00	0.00	0.00	0.00	41.00	168.71	216.00	1.2%
16 Tagig	56.35	19.00	51.00	126.35	14.00	0.00	0.00	0.00	0.00	0.00	4.00	18.00	144.35	171.00	1.0%
17 Valenzuela	73.15	28.00	164.00	265.15	8.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	273.15	273.00	1.9%
Total, Municipality	469.18	320.18	886.17	1,675.53	176.43	0.00	25.00	0.00	100.00	0.00	314.24	615.67	2,291.20	2,420.49	16.0%
Total of NCR	3,492.23	2,733.42	5,767.65	11,993.30	1,357.37	1.00	162.00	5.00	220.00	0.00	589.24	2,334.61	14,327.91	15,093.02	100.0%
Barangays	737.67														

Note: 5% of MMDA share, 220.87 million Peso, is not included.

Source: Budget of Expenditures and Source of Financing, Fiscal Year 1997

Table 13.14 Revenue of LGUs in NCR, 1997 (million Peso)

Table 13.14 Revenue of LGUs in NCR, 1997 (million Peso)														
Metropolitan Manila Area (NCR)	Tax Revenue (1997)			Total tax revenue	Non-tax Revenue						Total receipts	Total expend- iture	Share	
	Internal revenue allotment	Real property tax	Local tax		Operating & miscellane- ous revenue	Capital revenue	Grants	Extraor- dinary income	Borrowing	Inter-fund transfers				Other receipts
Provinces	373.07	0.00	0.00	373.07	0.00	0.00	948.00	0.00	0.00	0.00	256.00	1,204.00	1,577.07	7.2%
MMDA														
Cities														
1 Kalookan City	467.23	321.00	962.00	1,750.23	173.00	0.00	0.00	0.00	0.00	0.00	3.00	176.00	1,926.23	8.8%
2 City of Makati	364.16	965.00	1,695.00	3,024.16	334.00	0.00	0.00	0.00	0.00	0.00	0.00	334.00	3,358.16	15.3%
3 Manila	949.23	643.00	1,894.00	3,486.23	234.00	0.00	0.00	0.00	0.00	0.00	0.00	234.00	3,720.23	17.0%
4 City of Mandaluyong	202.19	82.00	146.00	430.19	6.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	436.19	2.0%
5 City of Muntinlupa	216.90	256.00	769.00	1,241.90	78.00	0.00	0.00	0.00	0.00	0.00	0.00	78.00	1,319.90	6.0%
6 Pasay City	248.35	148.00	444.00	840.35	87.00	0.00	0.00	0.00	0.00	0.00	0.00	87.00	927.35	4.2%
7 Pasig	289.44	321.00	825.00	1,435.44	318.00	0.00	0.00	0.00	0.00	0.00	0.00	318.00	1,753.44	8.0%
8 Quezon City	993.29	646.00	1,589.00	3,228.29	307.00	0.00	0.00	0.00	0.00	0.00	31.00	338.00	3,566.29	16.3%
Total, City	3,730.79	3,382.00	8,324.00	15,436.79	1,537.00	0.00	0.00	0.00	0.00	0.00	34.00	1,571.00	17,007.79	77.7%
Municipalities														
9 Las Pinas	90.94	42.00	139.00	271.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	271.94	1.2%
10 Malabon	86.18	32.00	48.00	166.18	49.00	0.00	0.00	0.00	0.00	0.00	0.00	49.00	215.18	1.0%
11 Marikina	90.16	105.00	221.00	416.16	68.00	0.00	0.00	1.00	82.00	0.00	0.00	151.00	567.16	2.6%
12 Navotas	58.95	48.00	55.00	161.95	25.00	0.00	0.00	0.00	0.00	0.00	0.00	25.00	186.95	0.9%
13 Paranaque	91.07	224.00	377.00	692.07	35.00	0.00	0.00	0.00	0.00	0.00	121.00	156.00	848.07	3.9%
14 Pateros	21.67	8.00	17.00	46.67	11.00	0.00	0.00	0.00	0.00	0.00	0.00	11.00	57.67	0.3%
15 San Juan	42.61	74.00	129.00	245.61	28.00	0.00	0.00	0.00	0.00	0.00	0.00	28.00	273.61	1.3%
16 Tagig	79.08	83.00	196.00	358.08	24.00	0.00	0.00	0.00	0.00	0.00	9.00	33.00	391.08	1.8%
17 Valenzuela	103.93	103.00	91.00	297.93	186.00	0.00	0.00	0.00	0.00	0.00	0.00	186.00	483.93	2.2%
Total, Municipality	664.59	719.00	1,273.00	2,656.59	426.00	0.00	0.00	1.00	82.00	0.00	130.00	639.00	3,295.59	15.1%
Total of NCR	4,768.45	4,101.00	9,597.00	18,466.45	1,963.00	0.00	948.00	1.00	82.00	0.00	420.00	3,414.00	21,880.45	100.0%
Barangays	1,036.93													
	5,805.38													

Note: 5% of MMDA share is not included.

Source: Budget of Expenditures and Source of Financing, Fiscal Year 1997

Table 13.15 Share of Revenue by Source, 1995 (%)

Table 13.15 Share of Revenue by Source, 1995 (%)													
Metropolitan Manilla Area (NCR)	Tax Revenue (1995)			Total tax revenue	Non-tax Revenue							Total receipts	
	Internal revenue allotment	Real property tax	Local tax		Operating & miscellane ous revenue	Capital revenue	Grants	Extraor- dinary income	Borrowing	Inter-fund transfers	Other receipts		Total Non-tax Revenue
Provinces	43%	0%	0%	43%	5%	0%	19%	0%	0%	0%	33%	57%	100%
MMDA													
Cities													
1 Kalookan City	35%	31%	28%	94%	5%	0%	0%	0%	0%	0%	1%	6%	100%
2 City of Makati	13%	25%	50%	88%	12%	0%	0%	0%	0%	0%	0%	12%	100%
3 Manila	27%	20%	43%	90%	10%	0%	0%	0%	0%	0%	0%	10%	100%
4 City of Mandaluyong	26%	22%	44%	92%	7%	0%	0%	1%	0%	0%	0%	8%	100%
5 City of Muntinlupa	13%	11%	37%	61%	12%	0%	0%	0%	27%	0%	0%	39%	100%
6 Pasay City	34%	18%	38%	91%	9%	0%	0%	0%	0%	0%	0%	9%	100%
7 Pasig	33%	17%	36%	86%	14%	0%	0%	0%	0%	0%	0%	14%	100%
8 Quezon City	23%	20%	47%	89%	10%	0%	0%	0%	0%	0%	1%	11%	100%
Total, City	24%	21%	43%	88%	10%	0%	0%	0%	1%	0%	0%	12%	100%
Municipalities													
9 Las Pinas	23%	14%	48%	85%	13%	0%	0%	0%	0%	0%	3%	15%	100%
10 Malabon	40%	16%	21%	76%	16%	0%	0%	0%	0%	0%	7%	24%	100%
11 Marikina	19%	12%	28%	60%	11%	0%	0%	0%	30%	0%	0%	40%	100%
12 Navotas	42%	35%	9%	86%	14%	0%	0%	0%	0%	0%	0%	14%	100%
13 Paranaque	8%	13%	40%	61%	3%	0%	0%	0%	0%	0%	36%	39%	100%
14 Pateros	62%	8%	17%	87%	13%	0%	0%	0%	0%	0%	0%	13%	100%
15 San Juan	18%	13%	45%	76%	9%	0%	15%	0%	0%	0%	0%	24%	100%
16 Tagig	39%	13%	35%	88%	10%	0%	0%	0%	0%	0%	3%	12%	100%
17 Valenzuela	27%	10%	60%	97%	3%	0%	0%	0%	0%	0%	0%	3%	100%
Total, Municipality	20%	14%	39%	73%	8%	0%	1%	0%	4%	0%	14%	27%	100%
Total of NCR	24%	19%	40%	84%	9%	0%	1%	0%	2%	0%	4%	16%	100%

Source: Budget of Expenditures and Source of Financing, Fiscal Year 1997

Table 13.16 Revenue Growth of LGUs in NCR, 1995-1997 (%)

Metropolitan Manila Area (NCR)	Tax Revenue				Non-tax Revenue					Total receipts		
	Internal revenue allotment	Real property tax	Local tax	Total tax revenue	Operating & miscellaneous revenue	Capital revenue	Grants	Extraordinary income	Borrowing		Inter-fund transfers	Other receipts
Provinces												
MMDA	120%			120%			692%				107%	292%
Cities												
1 Kalookan City	130%	103%	333%	183%	320%						50%	293%
2 City of Makati	139%	191%	168%	170%	134%							134%
3 Manila	133%	119%	163%	144%	84%							84%
4 City of Mandaluyong	134%	65%	57%	80%	14%							13%
5 City of Muntinlupa	371%	545%	473%	463%	144%							45%
6 Pasay City	129%	146%	209%	166%	168%							168%
7 Pasig	132%	277%	344%	250%	346%						103%	346%
8 Quezon City	132%	97%	102%	109%	96%						94%	107%
Total, City	138%	140%	171%	154%	134%							120%
Municipalities												
9 Las Pinas	142%	108%	105%	115%								97%
10 Malabon	142%	132%	154%	143%	201%							137%
11 Marikina	140%	250%	233%	207%	189%				82%			111%
12 Navotas	142%	137%	611%	190%	179%							179%
13 Paranaque	141%	206%	117%	139%	140%						41%	49%
14 Pateros	146%	400%	425%	224%	367%							367%
15 San Juan	143%	336%	170%	192%	175%							68%
16 Tagig	140%	437%	384%	283%	171%						225%	183%
17 Valenzuela	142%	368%	55%	112%	2325%							2325%
Total, Municipality	142%	225%	144%	159%	241%				82%		41%	104%
Total of NCR	137%	150%	166%	154%	145%		585%	20%	37%		71%	146%

Source: Budget of Expenditures and Source of Financing, Fiscal Year 1997

13.2.2 Budgetary Condition of MMA/MMDA

Table 13.17 Revenue of MMA/MMDA (million Pesos)

	1991 (actual)		1996 (actual)		1997 (budget)	
Revenue						
-Tax revenue	405.96	36.9%	0.00	0.0%	0.00	0.0%
-Non-tax revenue	100.10	9.1%	119.18	7.6%	109.13	6.1%
-LGUs Contributions	429.74	39.1%	372.96	23.8%	372.96	20.8%
-IRA	128.36	11.7%	307.89	19.6%	373.07	20.8%
-Grants & aids	4.28	0.4%	767.43	48.9%	848.82	47.3%
-Others	31.11	2.8%	1.34	0.1%	89.17	5.0%
Total revenue	1,099.55	100.0%	1,568.80	100.0%	1,793.15	100.0%

Source: MMDA

Table 13.18 Balance of Mandatory Contributions of 17 LGUs (thousand Pesos)

	Amount Due	Remittance and Adjustment	Balance as of May 31, 1997	%
Apr. 1995 - Dec. 1995	220,865	115,915	104,950	48%
Jan. 1996 - Dec. 1996	372,963	191,845	181,118	49%
Jan. 1997 - Jun. 1997	207,867	2,000	205,867	99%

Source: MMDA

Table 13.19 Expenditure of MMA/MMDA (million Pesos)

	1991 (actual)		1996 (actual)		1997 (budget)	
Expenditure						
-Personal service	550.85	50.1%	909.67	58.6%	963.20	53.7%
-Maintenance & operation service	542.98	49.4%	510.95	32.9%	587.05	32.7%
-Capital outlay	5.33	0.5%	131.56	8.5%	242.90	13.5%
Total expenditure	1,099.16	100.0%	1,552.18	100.0%	1,793.15	100.0%

Source: MMDA

Table 13.20 Expenditure of MMA/MMDA by Center & Office (million Pesos)

	1995 (actual)		1996 (actual)		1997 (budget)	
Expenditure						
-General/overall	333.31	27.1%	346.52	22.3%	442.04	24.7%
-ESC	667.08	54.2%	738.26	47.6%	752.85	42.0%
-PMO	136.50	11.1%	303.74	19.6%	374.59	20.9%
-TOC	49.86	4.1%	119.52	7.7%	178.08	9.9%
-BOC	13.79	1.1%	15.68	1.0%	14.54	0.8%
-ACID	14.58	1.2%	8.42	0.5%	7.82	0.4%
-EOC	9.39	0.8%	14.59	0.9%	18.02	1.0%
-HOC	5.36	0.4%	5.45	0.4%	5.21	0.3%
Total expenditure	1,229.87	100.0%	1,552.18	100.0%	1,793.15	100.0%

Source: MMDA

Note: ESC: Environmental Sanitation Center
PMO: Project Management Office
TOC: Traffic Operations Center
BOC: Barangay Operations Center
ACID: Action Center for Infrastructure Development
EOC: Engineering Operations Center
HOC: Health Operations Center

Table 13.21 Revenue of MMDA and LGUs in 1997 Budget (million Pesos)

	1997 (budget)	
MMDA	1,793.15	8.1%
Manila	3,720.23	16.8%
Quezon	3,566.29	16.1%
Makati	3,358.16	15.2%
Kalookan	1,926.23	8.7%
Pasig	1,753.44	7.9%
Other LGUs	5,979.03	27.1%
Total of 17 LGUs	20,303.38	91.9%
Total in NCR	22,096.53	100.0%

Source: Budget of Expenditures and Sources of Financing, Fiscal Year 1997, DBM

MMDA

Table 13.22 Capital Outlay of MMDA in 1997 Budget (million Pesos)

	1997 (budget)	
-Solis Waste Management	165.99	68.3% Sanitary Landfill
-Traffic Operation	36.91	15.2% Pedestrian, Lane making, etc.
-Infrastructure Development	20.00	8.2% MMDA Bldg., Parking, etc.
-Acquisition of Communication Equipment	20.00	8.2%
Total expenditure	242.90	100.0%

Source: MMDA

Table 13.23 Funded Positions in 1997 MMDA Budget

Offices	Funded Personal Positions in 1997 Budget			Services				
	Permanent	Casual	Total	General/ overall	SWM	Traffic	Health	Plann- ing
1. Office of the Chairman	5	4	9	9				
2. Office of the General Manager	230	214	444	444				
3. OAGM for Finance	141	52	193	193				
4. OAGM for Planning	40	2	42					42
5. OAGM for Operations	1	28	29	29				
6. Environmental Sanitation Center	7,582	394	7,976		3,988	3,988		
7. Project Management Office	0	28	28		28			
8. Traffic Operations Center	165	633	798			798		
9. Barangay Operation Center	122	9	131	131				
10. Action Center for Infrastructure Development	48	1	49	49				
11. Engineering Operations Center	34	16	50	50				
12. Health Operations Center	12	19	31				31	
Total	8,380	1,400	9,780	905	4,016	4,786	31	42

Source: MMDA

Note: According to the assigned position as of March 31, 1997, almost a half of the employee in ESC is assigned to SWM and the rests to traffic control and safety services.

Table 13.24 Budgetary Revenue of MMA/MMDA

Code/Item	Amount (million Pesos)								
	1988	1989	1990	1991	1992	1993	1994	1995	1996
I. REVENUE FROM TAXATION									
1 Real Property Tax	192.37	228.17	259.01	302.02	732.41	365.57	473.00	148.20	0.00
2 Business Tax	45.27	56.29	55.56	61.27	3.17	0.00	0.00	0.00	0.00
Delivery Trucks and Vans	0.17	0.19	0.17	0.21	0.04	0.00	0.00	0.00	0.00
Tax on Peddlers	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Occupation Tax	5.56	6.00	6.32	6.44	2.39	0.00	0.00	0.00	0.00
Immigration Tax	0.00	1.00	0.04	0.04	0.00	0.00	0.00	0.00	0.00
Residence Tax	28.18	31.53	34.34	37.94	0.11	0.00	0.00	0.00	0.00
Cultural Development Tax	11.33	17.56	14.68	16.64	0.64	0.00	0.00	0.00	0.00
3 Others	31.12	52.91	44.94	42.66	7.02	0.00	0.00	0.00	0.00
Total Revenue from Taxation	268.76	337.37	359.51	405.96	742.61	365.57	473.00	148.20	0.00
II. NON-TAX REVENUES									
1 Fees and Charges	60.28	84.25	56.25	50.31	22.53	35.53	27.72	123.04	90.09
Traffic Violation Fee			24.43	15.58	8.47	20.60	17.09	119.57	85.97
Parking Fee			8.33	13.51	12.49	12.65	8.41	0.07	0.00
Building Permit			17.81	16.48	0.00	0.00	0.00	0.00	0.00
Zoning Fee			4.76	3.63	1.23	1.62	1.58	2.88	2.83
Excavation Fee			0.92	1.12	0.35	0.66	0.64	0.53	1.29
2 Garbage Services	0.00	0.00	45.16	48.79	0.00	2.26	7.45	8.87	5.15
Garbage Fee			37.29	39.96	0.00	0.00	0.00	0.00	0.00
Sanitary Fee			7.87	8.83	0.00	0.00	0.00	0.00	0.00
Rental of Compactor			0.00	0.00	0.00	0.10	0.05	0.00	0.00
Dumping Fee			0.00	0.00	0.00	0.24	2.85	0.00	0.00
Smoke Belching			0.00	0.00	0.00	1.92	4.55	8.87	5.15
3 Others	1.85	10.39	0.02	1.00	1.00	0.00	0.00	0.00	3.48
Total Non-Tax Revenues	62.13	94.64	101.44	100.10	23.53	37.79	35.17	131.91	98.72
III. INCOME FROM RECEIPTS									
1 Statutory Contributions	198.28	293.15	357.85	429.74	1.00	0.00	0.00	0.00	0.00
2 Internal Revenue Allotment	26.01	52.61	76.90	128.36	219.17	334.17	380.08	311.36	307.89
3 Capital Revenue	0.08	0.33							
4 Grant and Aids	52.13	20.82	2.59	4.28	106.48	86.62	132.45	350.62	771.93
5									
6 Local Gov't. Stab. Fund			0.00	4.34	0.00	0.00	0.00	0.00	0.00
7 5 % MMDA Share	0.00	0.00	0.00	0.00	0.00	0.00	0.00	220.87	372.96
8 Others			25.77	26.77	0.07	1.11	8.61	1.14	0.18
Total Income from Receipts	276.50	366.91	463.10	593.48	326.73	421.91	521.13	883.99	1,452.96
TOTAL REVENUE AND OTHER RECEIPTS	607.39	798.92	924.05	1,099.54	1,092.87	825.27	1,029.31	1,164.10	1,551.68

Source: MMDA

Table 13.25 Budgetary Expenditure of MMA/MMDA

Code/Item	Amount (M Pesos)									
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
1 CHAIRMAN										
100 Personal Services	44.65	56.53	0.08	0.07	0.15	0.27	0.52	2.39	3.03	
200 Maintenance & Operating Services	8.73	40.49	0.65	1.56	0.93	0.81	1.14	1.29	1.99	
300 Capital Outlay	0.03	0.15								
	53.41	97.17	0.73	1.62	1.07	1.08	1.66	3.68	5.03	
2 COUNCIL SECRETARIAT										
100 Personal Services									1.20	
200 Maintenance & Operating Services									0.10	
300 Capital Outlay										
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.30	
3 GENERAL MANAGER										
100 Personal Services			33.34	38.59	35.67	33.47	37.48	49.39	49.37	
200 Maintenance & Operating Services			4.65	6.11	6.17	5.37	10.62	13.35	22.83	
300 Capital Outlay				0.92						
	0.00	0.00	37.99	45.62	41.84	38.84	48.10	62.74	72.21	
4 FINANCE										
100 Personal Services			18.21	18.55	16.56	16.54	18.81	24.34	28.57	
200 Maintenance & Operating Services			2.28	3.55	1.97	2.22	2.48	2.27	4.28	
300 Capital Outlay				0.19						
	0.00	0.00	20.49	22.28	18.53	18.76	21.29	26.61	32.85	
5 PLANNING										
100 Personal Services			5.58	6.17	5.34	5.04	5.74	7.02	8.19	
200 Maintenance & Operating Services			0.47	1.38	0.64	0.64	1.13	1.14	0.98	
300 Capital Outlay										
	0.00	0.00	6.05	7.55	5.98	5.69	6.87	8.16	9.17	
6 OPERATIONS										
100 Personal Services	19.73	29.98	2.49	1.66	1.33	1.20	1.27	4.10	3.58	
200 Maintenance & Operating Services	14.50	17.03	0.79	0.79	0.95	0.42	0.31	0.23	0.78	
300 Capital Outlay	0.00	0.02		0.02				0.00		
	34.23	47.01	3.28	2.46	2.28	1.62	1.58	4.33	4.36	
7 ENVIRONMENTAL SANITARY CENTER										
100 Personal Services	220.91	344.71	357.09	426.57	404.84	403.31	471.76	560.58	673.41	693.55
200 Maintenance & Operating Services	162.32	195.65	209.47	392.90	239.44	137.26	117.45	106.50	64.85	59.30
300 Capital Outlay		0.27		3.56						
	383.23	540.63	566.56	823.02	644.28	540.57	589.21	667.08	738.26	752.85
8 PROJECT MANAGEMENT OFFICE										
100 Personal Services							2.43	7.20	4.99	2.55
200 Maintenance & Operating Services							70.94	129.30	206.40	206.05
300 Capital Outlay									92.35	165.99
	0.00	0.00	0.00	0.00	0.00	0.00	73.36	136.50	303.74	374.59
9 TRAFFIC OPERATIONS CENTER										
100 Personal Services			14.12	21.51	21.11	21.91	27.66	38.35	67.67	
200 Maintenance & Operating Services			2.85	3.62	3.00	4.64	7.41	11.51	51.86	
300 Capital Outlay				0.66						
	0.00	0.00	16.97	25.78	24.12	26.55	35.07	49.86	119.52	
10 BARANGAY OPERATIONS CENTER										
100 Personal Services			11.50	12.17	10.97	11.20	12.74	13.79	15.68	
200 Maintenance & Operating Services			0.11							
300 Capital Outlay										
	0.00	0.00	11.61	12.17	10.97	11.20	12.74	13.79	15.68	
11 PARKING										
100 Personal Services			10.57	12.06	10.66	10.61	12.35	0.00	0.00	
200 Maintenance & Operating Services			0.46	0.70	0.36	0.45	0.25	0.00	0.00	
300 Capital Outlay										
	0.00	0.00	11.03	12.76	11.03	11.06	12.61	0.00	0.00	
12 ACID										
100 Personal Services			6.98	7.87	7.26	6.66	7.14	7.98	8.39	
200 Maintenance & Operating Services			0.37	0.40	0.11	0.03	0.09	6.60	0.03	
300 Capital Outlay										
	0.00	0.00	7.35	8.26	7.37	6.70	7.23	14.58	8.41	
13 ENGINEERING OPERATIONS CENTER										
100 Personal Services			3.84	4.19	3.70	3.74	4.56	5.23	6.43	
200 Maintenance & Operating Services			0.06	0.71	0.63	1.70	4.11	4.17	8.16	
300 Capital Outlay										

	0.00	0.00	3.90	4.90	4.33	5.43	8.67	9.39	14.59
14 HEALTH OPERATIONS CENTER									
100 Personal Services			1.33	1.44	1.37	1.55	2.51	5.06	5.14
200 Maintenance & Operating Services			0.22	0.45	0.24	0.42	0.35	0.31	0.31
300 Capital Outlay									
	0.00	0.00	1.55	1.88	1.61	1.97	2.85	5.36	5.45
15 COMMISSION ON AUDIT									
100 Personal Services									
200 Maintenance & Operating Services			0.21	0.32	0.28	0.26	0.14	0.26	0.34
300 Capital Outlay									
	0.00	0.00	0.21	0.32	0.28	0.26	0.14	0.26	0.34
16 SPECIAL ACTIVITIES									
100 Personal Services									
200 Maintenance & Operating Services			9.03	9.72	9.89	9.17	17.35	16.87	
300 Capital Outlay									
	0.00	0.00	9.03	9.72	9.89	9.17	17.35	16.87	0.00
17 UNPROG. EXPENDITURE INCLUDING SAF									
100 Personal Services									
200 Maintenance & Operating Services									12.20
300 Capital Outlay									
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.20
18 RETIREMENT GRATUITY									
100 Personal Services					5.44	6.38	4.38	4.65	10.22
200 Maintenance & Operating Services					4.87	5.86	2.16		53.03
300 Capital Outlay									
	0.00	0.00	0.00	0.00	10.31	12.23	6.55	4.65	63.25
19 CLEAN AND GREEN POLLUTION CONTROL									
100 Personal Services									
200 Maintenance & Operating Services							4.27		7.29
300 Capital Outlay									
	0.00	0.00	0.00	0.00	0.00	0.00	4.27	0.00	7.29
20 INTEREST									
100 Personal Services									
200 Maintenance & Operating Services	9.22				0.05	0.03	0.04	50.98	20.00
300 Capital Outlay									
	9.22	0.00	0.00	0.00	0.05	0.03	0.04	50.98	20.00
21 PRIOR YEARS OBLIGATION									
100 Personal Services			96.94		4.63	3.78	4.74	7.02	12.66
200 Maintenance & Operating Services			2.34		4.36	13.65	23.66	69.32	27.86
300 Capital Outlay									
	0.00	0.00	99.28	0.00	8.99	17.42	28.40	76.34	40.52
22 GRAND, AIDS & SUBSIDIES									
100 Personal Services									
200 Maintenance & Operating Services			125.00	101.88					
300 Capital Outlay									
	0.00	0.00	125.00	101.88	0.00	0.00	0.00	0.00	0.00
23 CAPITAL OUTLAY									
100 Personal Services									
200 Maintenance & Operating Services									
300 Capital Outlay							13.10	76.96	23.43
	0.00	0.00	0.00	0.00	0.00	0.00	13.10	76.96	23.43
24 CAPABILITY BUILDING									
100 Personal Services									
200 Maintenance & Operating Services									0.38
300 Capital Outlay									
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38
25 COMPUTERIZATION									
100 Personal Services									
200 Maintenance & Operating Services									
300 Capital Outlay									
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26 INTELLIGENCE FUND									
100 Personal Services									
200 Maintenance & Operating Services									9.00
300 Capital Outlay									

	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.00	
27 CALAMITY FUND										
100 Personal Services										
200 Maintenance & Operating Services								1.72		
300 Capital Outlay										
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.72	0.00	
28 PRODUCTIVITY INCENTIVE BONUS										
100 Personal Services							20.50	9.96	11.14	
200 Maintenance & Operating Services										
300 Capital Outlay										
	0.00	0.00	0.00	0.00	0.00	0.00	20.50	9.96	11.14	
29 INFRA PROJECTS										
100 Personal Services										
200 Maintenance & Operating Services				18.92					18.28	
300 Capital Outlay	5.96	29.94							15.79	
	5.96	29.94	0.00	18.92	0.00	0.00	0.00	0.00	34.07	
30 SALARY ADJUSTMENT										
100 Personal Services										
200 Maintenance & Operating Services										
300 Capital Outlay										
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
99 TOTAL GENERAL FUND										
100 Personal Services	285.29	431.22	562.08	550.85	529.02	525.65	634.59	747.05	909.66	963.20
200 Maintenance & Operating Services	194.77	253.15	358.95	542.98	273.90	182.91	263.89	415.79	510.93	587.06
300 Capital Outlay	5.99	30.38	0.00	5.33	0.00	0.00	13.10	76.96	131.56	242.90
Grand total	486.05	714.75	921.03	1,099.16	802.91	708.56	911.59	1,239.81	1,552.16	1,793.16

Source: MMDA

13.2.3 Financial Survey of 17 LGUs and MMDA

(1) Objectives

The Survey on Financial Capability of 17 LGUs and MMDA was conducted from May 16, 1997 by MMDA and the Study Team.

The objective of the Survey on Financial Capability are as follows:

- to review the budgetary and financial conditions of 17 LGUs as well as MMDA, and
- to identify the financial absorptive capability of 17 LGUs and MMDA for the preparation of the Solid Waste Management Master Plan in Metro Manila

(2) Methodology

The budgetary conditions of individual LGUs and MMDA were reviewed from revenue and expenditure sides in general and the balances of SWM revenue and expenditure were focused in particular. Those information are to be able to determine the overall financial capability for LGUs and MMDA for the solid waste management in Metro Manila. The steps taken are as follows:

1) LGU Meeting

LGU Meeting was organized on May 16, 1997, where the objectives of the Survey as well as the scope of the Study were explained to the budget officers of each LGU by MMDA and the Study Team.

2) Questionnaire Survey

The Study Team required 17 LGUs and MMDA to fill out the Questionnaire Sheets consisting of the following items:

- income and appropriation of LGUs
- revenues and other receipts of LGUs
- expenditure of LGUs
- expenditure of SWM
- user charge collection
- public investment programs of LGUs

3) Interview Survey

The Interview Survey to the accountants of LGUs followed by the Questionnaire Survey in order to confirm the information provided during the Questionnaire Survey.

4) Questionnaire Sheets

Japan International Cooperation Agency (JICA)
Metropolitan Manila Development Authority (MMDA)

THE SOLID WASTE MANAGEMENT STUDY FOR METRO MANILA

c/o MMDA Bldg., 3/F Project Management Office
Orense St., cor. EDSA, Guadalupe Makati City
Tel/Fax. No. 812-1449

Questionnaire

BUDGETARY CONDITIONS OF LGUs

Name of LGU: _____

1. INCOME AND APPROPRIATION of LGU

a. Income by Resources

Resource	Amount (thousand Pesos)				
	1992	1993	1994	1995	1996
General Fund					
Transfer to Infrastructure Fund					
Infrastructure Fund					
Total Income					

b. Expenditure

	Amount (thousand Pesos)				
	1992	1993	1994	1995	1996
General Fund					
Infrastructure Fund					
Total Expenditure					

c. Surplus

	Amount (thousand Pesos)				
	1992	1993	1994	1995	1996
General Fund					
Infrastructure Fund					
Total Surplus					

2. REVENUES AND OTHER RECEIPTS of LGU

Code/Item	Amount (thousand Pesos)				
	1992	1993	1994	1995	1996
I. REVENUE FROM TAXATION					
1. Real Property Tax					
2. Business Tax					
3. Occupation Tax					
4. Tax on Transfer of Real Property					
5. Tax on Peddlers					
6. Delivery Trucks and Vans					
7. Tax on Advertisement					
8. Franchise Tax					
9. Amusement Tax on Admission					
10. Cultural Development Tax					
11. Residence and Community Tax					
12. Others					
Total Revenue from Taxation					
II. INCOME FROM USER CHARGES					
1. Market and Slaughter Houses					
2. Garbage Services					
3. Public Schools					
4. Parking					
5. Hospitals					
6. Cemeteries					
7. Towing and Stalled Vehicles					
8. Tolls for the Use of Roads, Bridges, Canals or Ferries					
9. Others					
Total Income from User Charges					
III. INCOME FROM REGULATORY FEES					
1. Mayor's Permit					
2. Building Permit					
3. Secretary's Fees					
4. Sanitary Inspection and Health Certificate					
5. Excavation Permit					
6. Civil Register					
7. Testing, Sealing of Weight and Measures					
8. Others					
Total Income from Regulatory Fees					
IV. INCOME FROM RECEIPTS					
1. Internal Revenue Allotment					
2. Specific Tax Allotment					
3. Garbage Fees					
4. Interest and Dividends					
5. Highway Special Fund					
6. Police and Arrest Fees					
7. Others					
Total Income from Receipts					
TOTAL REVENUE AND OTHER RECEIPTS					

3. EXPENDITURE

Expenditure of LGU

Code/Item	Amount (thousand Pesos)				
	1992	1993	1994	1995	1996
GENERAL FUND					
General Administration					
Government Finance					
Social Improvement					
Economic Development					
SWM Ependiture*(Please prepare the detail in the next table)					
Inter-Government Aid					
15% Statutory Contribution					
5% MMDA Share					
INFRASTRUCTURE FUND					
General Administration					
Economic Development					
Loans, Advance and Transfer					
Others					
Total					

4. SOLID WASTE MANAGEMENT

a. Expenditure of SWM

Code/Item	Amount (thousand Pesos)				
	1992	1993	1994	1995	1996
100 Personal Services					
-Regular employees					
-Casual employees					
200 Maintenance and Other Operating Expenses					
-Gov't vehicle					
-Gov't facilities					
-Supplies & Materials					
300 Capital Outlays					
Total Expenditure					

b. User-Charge-Collection

1. Residential Area

Are you going to impose garbage collecting fee in the residential area?

Yes: ☐ No: ☐

2. Business Establishments

What is your garbage fee basis of business establishments?

How do you compute it?

3. PUBLIC INVESTMENT PROGRAMS OF LGUs IN THE FUTURE

Please provide public investment projects/programs, including SWM in the future.

[illegible]

* We will appreciate, if you could fill out the above by Thursday, 22 May 1997.
Thank you very much for your kind cooperation.

(3) Results of Survey

1) General

17 LGUs have responded to the questionnaire, however, some items have not been provided because of scarcity of information. Some information on the budgetary conditions of LGUs were also collected from the DBM besides the above surveys. However, the information on the SWM costs is very limited in most LGUs due to the accounting system, which is not designed to break out the SWM costs from other government expenditure.

Therefore the balance of revenue and expenditure for solid waste management is difficult to be clarified in the individual budget of LGUs because of the accounting systems as described above. Furthermore, it makes the analysis more complicated that MMDA are assisting LGUs with SWM in terms of financial aids, such as deduction of 5 % share, and personal services on various levels.

2) Revenue and Expenditure

Table 13.26 shows the budget revenue and the estimate revenue responded through the Survey in 1996.

Table 13.26 Budget and Actual Revenue and Expenditure of MMDA and 17 LGUs

	Budget Revenue in 1996 *1) (million Peso)	Estimate *2)			
		Revenue in 1996 (million Peso)	Revenue per person (Peso)	Expenditure in 1996 (million Peso)	Expenditure per person (Peso)
MMDA	1,464.9	1,725.7	182.6	1,544.1	163.4
Kalookan	1,271.4	779.2	761.7	904.7	884.4
Makati	2,449.1	3,392.0	7,008.3	2,504.2	5,174.0
Manila	2,696.4	3,203.9	1,935.9	3,203.8	1,935.8
Mandaluyong	336.2	781.1	2,721.6	780.0	2,717.8
Muntinlupa	703.2	582.6	1,456.5	278.8	697.0
Pasay	625.3	548.3	1,340.6	556.8	1,361.4
Pasig	1,020.4	1,049.0	2,227.2	821.8	1,744.8
Quezon	2,846.8	2,995.0	1,505.8	2,995.0	1,505.8
Las Pinas	298.7	322.8	781.6	301.8	730.8
Malabon	187.9	169.0	487.0	169.6	488.8
Marikina	384.3	412.0	1,154.1	378.0	1,058.8
Navotas	139.1	104.3	455.5	138.2	603.5
Paranaque	761.7	825.3	2,110.7	764.4	1,955.0
Pateros	27.0	78.8	1,432.7	64.0	1,163.6
San Juan	176.3	254.4	2,051.6	216.2	1,743.5
Taguig	177.5	329.9	865.9	226.8	595.3
Valenzuela	349.7	349.2	799.1	317.8	727.2
Total of 17 LGUs	14,451.0	16,176.8	1,711.5	14,621.9	1,547.0
Total of NCR	15,915.9	17,902.5	1,894.1	16,166.0	1,710.4

Source: 1) Budget of Expenditures and Sources of Financing Fiscal Year 1997, DBM

2) Financial Survey of 17 LGUs and MMDA, JICA

Per Capita budget revenue is extraordinary high in Makati City, which amounts to 7,008 Pesos per person annually. On the contrary it is very low in Malabon and Navotas 487 Pesos and 456 Pesos respectively and they are much lower than the average per capita revenue of local government in the Philippines in 1997's budget, which is 1,338 Pesos as shown in Table 13.1.

During the last five years from 1992 to 1996, after the implementation of the Local Government Code, the revenue of the every LGU increased more than twice or at an average annual growth rate of more than 20 %. Some LGUs, such as Makati, Muntinlupa, Pateros and Taguig, increased their budget revenues at more than five times during the same period (refer to Table 13.28).

Table 13.27 Population, Area, Budget Expenditure, SWM Costs and Waste Generation of 17 LGUs

1,000	Population *1)		Area *1) sq km	Population density persons/km2	Budget expenditure in 1996 *2)		SWM expenditure in 1996 *2)		share of total expenditure	Waste generation per day *3)		Waste collection per day *3)		Waste illegal dumping*3) %
	Population				Budget expenditure		SWM expenditure			Waste generation		Waste collection		
	persons	sq km			mil. Pesos	Pesos per person	mil. Pesos	Pesos per person		mil. Pesos	Pesos per person	ton	per day *3)	

Source: *1) NSO

*2) Financial Survey by JICA

*3) worked out by the JICA Study Team

Table 13.28 Budget Revenue of MMDA and 17 LGUs by Source (1992 - 1996)

	LGU Revenue					LGU Revenue (1992=100)				
	1992	1993	1994	1995	1996 *1)	1992	1993	1994	1995	1996
	mil. pesos	mil. pesos	mil. pesos	mil. pesos	mil. pesos					
Kalookan	341,487	540,471	657,488	682,470	779,185	100	158	193	200	228
Real Property Tax	36,439	40,352	54,654	75,337	113,740	100	111	150	207	312
Business Tax	74,916	90,512	108,567	119,781	147,834	100	121	145	160	197
IRA	155,236	289,014	348,487	338,258	350,048	100	186	224	218	225
Others	74,896	120,593	145,780	149,094	167,563	100	161	195	199	224
Makati	609,607	845,282	1,290,325	1,918,558	3,391,950	100	139	212	315	556
Real Property Tax	76,409	100,960	167,524	520,730	565,794	100	132	219	682	740
Business Tax	236,476	348,631	556,662	655,719	1,175,687	100	147	235	277	497
IRA	33,083	53,321	110,033	262,041	279,117	100	161	333	792	844
Others	263,639	342,370	456,106	480,068	1,371,352	100	130	173	182	520
Manila	1,711,425	2,414,066	2,674,557	2,754,000	3,203,852	100	141	156	161	187
Real Property Tax	624,980	558,000	568,000	540,800	1,342,387	100	89	91	87	215
Business Tax	375,000	900,555	965,000	962,000	701,331	100	240	257	257	187
IRA	262,578	478,736	686,440	758,767	766,251	100	182	261	289	292
Others	448,867	476,775	455,117	492,433	393,883	100	106	101	110	88
Mandaluyong	236,976	290,341	427,795	971,036	781,139	100	123	181	410	330
Real Property Tax	29,457	41,706	99,008	111,325	115,964	100	142	336	378	394
Business Tax	83,709	90,341	131,944	157,708	185,858	100	108	158	188	222
IRA	18,427	30,610	50,553	151,425	162,237	100	166	274	822	880
Others	105,383	127,684	146,290	550,578	317,080	100	121	139	522	301
Muntinlupa	88,460	212,495	234,084	299,800	582,564	100	240	265	339	659
Real Property Tax	21,430	25,326	35,150	53,172	112,500	100	118	164	248	525
Business Tax	17,962	32,680	40,159	49,128	80,000	100	182	224	274	445
IRA	19,255	36,666	55,230	59,137	177,136	100	190	287	307	920
Others	29,813	117,823	103,545	138,363	212,928	100	395	347	464	714
Pasay	200,724	320,144	387,910	462,597	548,256	100	159	193	230	273
Real Property Tax	42,158	43,180	49,882	85,943	94,381	100	102	118	204	224
Business Tax	37,426	64,386	36,922	103,175	120,413	100	172	99	276	322
IRA	83,715	150,372	185,992	191,842	206,328	100	180	222	229	246
Others	37,425	62,206	115,114	81,637	127,134	100	166	308	218	340
Pasig	600,000	700,000	837,396	871,323	1,049,017	100	117	140	145	175
Real Property Tax	77,453	90,362	108,098	228,591	130,855	100	117	140	295	169
Business Tax	190,266	221,977	265,547	340,269	547,995	100	117	140	179	288
IRA	29,495	54,189	74,990	218,654	234,414	100	184	254	741	795
Others	302,786	333,472	388,761	83,809	135,753	100	110	128	28	45
Quezon	1,113,321	2,351,532	3,095,831	2,369,616	2,995,000	100	211	278	213	269
IRA	321,984	596,988	707,485	755,140	809,840	100	185	220	235	252
Others	791,337	1,754,544	2,388,346	1,614,476	2,185,160	100	222	302	204	276
Las Pinas		115,843	210,354	229,715	322,771		100	182	198	279
Real Property Tax		17,477	25,103	29,070	35,224		100	144	166	202
Business Tax		24,942	56,667	64,588	102,824		100	227	259	412
IRA		35,566	58,637	64,024	69,724		100	165	180	196
Others	0	37,858	69,947	72,033	114,999		100	185	190	304

	LGU Revenue					LGU Revenue (1992=100)				
	1992	1993	1994	1995	1996	1992	1993	1994	1995	1996
	mil. pesos	mil. pesos	mil. pesos	mil. pesos	mil. pesos					
Malabon	73,876	88,323	123,298	144,852	169,009	100	120	167	196	229
Real Property Tax	7,462	10,777	11,053	21,937	30,390	100	144	148	294	407
Business Tax	17,726	19,156	25,128	28,198	34,022	100	108	142	159	192
IRA	20,791	35,498	53,763	60,566	65,930	100	171	259	291	317
Others	27,897	22,892	33,354	34,151	38,667	100	82	120	122	139
Marikina	92,224	163,240	256,685	449,004	411,976	100	177	278	487	447
Real Property Tax	11,630	18,280	29,300	34,760	71,670	100	157	252	299	616
Business Tax	22,780	49,330	59,940	77,860	80,130	100	217	263	342	352
IRA	23,180	37,670	59,270	67,670	70,420	100	163	256	292	304
Others	34,634	57,960	108,175	268,714	189,756	100	167	312	776	548
Navotas	37,595	69,102	90,784	106,476	104,308	100	184	241	283	277
Real Property Tax	5,442	7,661	12,078	18,733	24,185	100	141	222	344	444
Business Tax	9,237	14,643	13,959	16,078	19,364	100	159	151	174	210
IRA	14,230	26,511	36,784	41,434	45,108	100	186	258	291	317
Others	8,686	20,287	27,963	30,231	15,651	100	234	322	348	180
Paranaque	148,481	313,286	387,140	519,549	825,299	100	211	261	350	556
Real Property Tax	37,371	52,070	68,449	149,589	207,390	100	139	183	400	555
Business Tax	42,488	161,728	214,185	257,514	362,839	100	381	504	606	854
IRA	22,941	35,382	57,652	39,371	70,671	100	154	251	172	308
Others	45,681	64,106	46,854	73,075	184,399	100	140	103	160	404
Pateros	8,591	13,521	19,185	24,888	78,767	100	157	223	290	917
Real Property Tax	377	470	779	1,155	1,997	100	125	207	306	530
Business Tax	1,962	2,446	2,655	2,804	4,051	100	125	135	143	206
IRA	2,761	7,929	13,345	14,822	16,022	100	287	483	537	580
Others	3,491	2,676	2,406	6,107	56,697	100	77	69	175	1,624
San Juan	62,478	144,956	154,640	181,342	254,376	100	232	248	290	407
Real Property Tax	7,985	14,132	13,222	19,501	30,920	100	177	166	244	387
Business Tax	22,775	72,861	72,128	90,393	113,549	100	320	317	397	499
IRA	10,054	16,532	26,577	29,364	33,302	100	164	264	292	331
Others	21,664	41,431	42,713	42,084	76,605	100	191	197	194	354
Taguig	58,169	89,722	130,383	166,149	329,924	100	154	224	286	567
Real Property Tax	8,007	11,233	13,575	31,735	53,229	100	140	170	396	665
Business Tax	14,755	24,657	41,210	43,831	60,951	100	167	279	297	413
IRA	19,987	37,235	49,790	56,352	61,500	100	186	249	282	308
Others	15,420	16,597	25,808	34,231	154,244	100	108	167	222	1,000
Valenzuela	106,141	184,210	233,144	271,582	349,157	100	174	220	256	329
Real Property Tax	17,109	23,911	19,727	30,280	60,903	100	140	115	177	356
Business Tax	38,622	54,623	71,429	87,684	116,327	100	141	185	227	301
IRA	25,264	43,784	85,039	73,148	79,648	100	173	337	290	315
Others	25,146	61,892	56,949	80,470	92,279	100	246	226	320	367
Total of LGUs	5,489,555	8,856,534	11,210,999	12,422,957	16,176,550	100	161	204	226	295
MMDA	1,095,202	832,758	1,181,281	1,035,453	1,725,653	100	76	108	95	158
Real Property Tax	220,665	337,113	384,617	0	0	100	153	174	0	0
Business Tax	0	0	0	0	0					
IRA	184,452	321,277	380,072	283,519	307,893	100	174	206	154	167
Grants & Borrowing	147,812	96,950	382,448	473,557	924,284	100	66	259	320	625
Others	542,273	77,418	34,144	278,377	493,476	100	14	6	51	91

Source: Financial Survey, JICA

Note *1): Estimate

13.3 SWM Costs in Metro Manila

The costs of SWM in Metro Manila are appropriated by the budgets of MMDA and 17 LGUs. Base on the Local Government Code, the costs for garbage collection should be appropriated from the LGUs' budget, and the transfer/haulage and final disposal from the MMDA's budget. However the actual appropriations are partly complicated as described below.

At present, the Project Management Office (PMO) and almost a half of the persons of the Environmental Sanitation Center (ESC) are involved in SWM in MMDA. The expenditure of the PMO and a half of expenditure of the ESC amount to about 40 % of the total expenditure of MMDA (refer to table 13.31). On the other hand, LGUs spend 5 - 18 % of their expenditure for SWM according the results of the Financial Survey of LGUs and it may be estimated that about 11 % of total revenue are consumed for SWM by LGUs in Metro Manila (refer to Table 13.27).

LGUs do not impose garbage collection fees on the residential area but impose it on business establishments by the basis of area of the establishment.

Table 13.29 SWM Expenditure in Metro Manila

	1991	1992	1993	1994	1995	1996	1997 budget
MMA/MMDA							
PERSONAL SERVICES							
1 FSC *1	426.57	412.29	411.74	235.88	280.29	336.71	346.78
1 PMO				2.43	7.20	4.99	2.55
Sub-total	426.57	412.29	411.74	238.31	287.49	341.70	349.33
MAINTENANCE & OTHER OPERATING EXPENDITURE							
2 ESC *1	392.90	246.95	150.39	58.73	53.25	32.42	29.65
2 PMO				70.94	129.30	206.40	206.05
Sub-total	392.90	246.95	150.39	129.67	182.55	238.82	235.70
CAPITAL OUTLAY							
3 San Mateo						54.53	84.59
3 Carmona						16.26	71.80
3 Las Pinas							9.60
3 Antipolo						22.52	
Sub-total						93.31	165.99
Total of MMA/MMDA	819.47	659.24	562.13	367.98	470.04	673.83	751.02
DPWH							
CAPITAL OUTLAY							
3 San Mateo	10.78	50.71	26.41	12.00	48.34		
3 Carmona		24.93	65.53	48.88	16.96		
3 Las Pinas		14.99	15.72		9.34		
Total of DPWH	10.78	90.63	107.66	60.88	74.64		
LGUs							
4 Garbage Collection *2	n.a.	n.a.	n.a.	n.a.	1,360.40	1,445.10	2,030.40
TOTAL					1,905.08	2,118.93	2,781.41

Source: DBM

MMDA

DPWH

Financial Survey of LGUs, JICA Study

Noté1 Total expenditure of ESC is estimated for SWM until 1993, while a half of ESC expenditure is estimated for SWM after 1994.

*2 Based on the results of the Financial Survey, it is estimated that 10 % of total LGU's expenditure is spent for SWM on average.

Table 13.30 SWM Expenditure of PMO/Budget of MMDA in 1997

	Total	General/ overall	Landfill			SLF	Transfer Station	Development of Landfill Sites		
			San Mateo	Carmona	Catmon			Las Pinas	San Mateo	Carmona Antipolo
Personal services	2,552	2,552								
Maintenance & operation expenditure										
-Repair & maintenance of Gov't facilities	3,000				1,000	2,000				
-Repair & servicing of equipment & vehicles	120	120								
-Supplies & materials										
Soil cover	3,300				3,300					
Disinfectant	6,000				1,000	1,000	4,000			
Other supplies	2,007	2,007								
-Rental Heavy equipment	7,299				7,299					
-Water and power	360					360				
-Insurance of Government properties	2,500	2,500								
-Security services	1,276					1,276				
-Leachate water treatment	500				250	250				
-Management contract	179,521		66,613	81,993			30,916			
-Others	168	168								
Sub-total	206,051	4,795	66,613	81,993	12,849	4,886	34,916	0	0	0
Capital outlay	165,989							84,586	71,803	9,600
Total of PMO	374,592	7,347	66,613	81,993	12,849	4,886	34,916	84,586	71,803	9,600

Source: MMDA

Table 13.31 SWM Expenditure of MMA/MMDA

Code/Item	Amount (million Pesos)									
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Environmental Sanitary Center										
100 Personal Services	220.91	344.71	357.09	426.57	404.84	403.31	235.88	280.29	336.70	346.78
Share of Total Personal Services of MMDA	77%	80%	64%	77%	77%	77%	37%	38%	37%	36%
200 Maintenance & Operating Services	162.32	195.65	209.47	392.90	239.44	137.26	58.72	53.25	32.43	29.65
Share of Total M & O Service OF MMDA	83%	77%	58%	72%	87%	75%	22%	13%	6%	5%
300 Capital Outlay	0.00	0.27	0.00	3.56	0.00	0.00	0.00	0.00	0.00	0.00
Share of Total Capital Outlay of MMDA	0%	1%		67%			0%	0%	0%	0%
Share of Total MMDA Expenditure	383.23	540.63	566.56	823.02	644.28	540.57	294.60	333.54	369.13	376.43
	79%	76%	62%	75%	80%	76%	32%	27%	24%	21%
Project Management Office										
100 Personal Services	0.00	0.00	0.00	0.00	0.00	0.00	2.43	7.20	4.99	2.55
Share of Total Personal Services of MMDA	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%
200 Maintenance & Operating Services	0.00	0.00	0.00	0.00	0.00	0.00	70.94	129.30	206.40	206.05
Share of Total M & O Service OF MMDA	0%	0%	0%	0%	0%	0%	27%	31%	40%	35%
300 Capital Outlay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	92.35	165.99
Share of Total Capital Outlay of MMDA	0%	0%		0%			0%	0%	70%	68%
Total of PMO	0.00	0.00	0.00	0.00	0.00	0.00	73.36	136.50	303.74	374.59
	0%	0%	0%	0%	0%	0%	8%	11%	20%	21%
Total in MMDA										
100 Personal Services	220.91	344.71	357.09	426.57	404.84	403.31	238.31	287.49	341.70	349.33
Share of Total Personal Services of MMDA	77%	80%	64%	77%	77%	77%	38%	38%	38%	36%
200 Maintenance & Operating Services	162.32	195.65	209.47	392.90	239.44	137.26	129.66	182.54	238.82	235.70
Share of Total M & O Service OF MMDA	83%	77%	58%	72%	87%	75%	49%	44%	47%	40%
300 Capital Outlay	0.00	0.27	0.00	3.56	0.00	0.00	0.00	0.00	92.35	165.99
Share of Total Capital Outlay of MMDA	0%	1%		67%			0%	0%	70%	68%
Total of MMDA	383.23	540.63	566.56	823.02	644.28	540.57	367.97	470.03	672.87	751.02
	79%	76%	62%	75%	80%	76%	40%	38%	43%	42%
Financial Assistance from National Government Budget										
300 Capital Outlay	0.00	0.00	0.00	90.78	90.63	107.67	60.88	74.64	0.00	
Infrastructure development										
-San Mateo SLF (57.7 ha)				10.78	50.71	26.42	12.00			
-Carmona SLF (65.9 ha)					24.93	65.53	48.88	48.34		
-Antipol SLF (2.6 ha)								16.96		
-Las Pinas TS					14.99	15.72		9.34		
Equipment										
-20 units Prime Mover				80.00						

Source: MMDA and DPWH

13.4 Cost Estimates of 12 Technical Alternatives

The costs of 12 technical alternatives are estimated in Table 13.32, including the operation and maintenance costs:

- In 1997 prices
- Exchange Rate: 1.00 US\$ = Peso 30.40
1.00 US\$ = Japanese Yen 119.45
Peso 1.00 = Japanese Yen 3.9292
(as of the end of August 1997)

Table 13.32 Cost Estimates of Technical Alternatives
million Pesos

	Total cost	1998-2000	2001-2005	2006-2010
A1	59,300	2,600	49,600	7,100
A2	34,700	2,600	17,200	14,900
B1	63,600	2,600	54,300	6,700
B2	39,700	2,600	23,500	13,600
C1	65,800	2,600	56,500	6,700
C2	42,000	2,600	25,700	13,700
D1	66,700	2,600	56,900	7,200
D2	42,600	2,600	25,900	14,100
E1	70,200	3,900	39,400	26,900
E2	69,800	2,700	46,300	20,800
F1	107,800	2,700	80,600	24,500
F2	89,900	2,700	62,700	24,500

Table 13.33 Cost Estimates of 12 Technical Alternatives

Alternative	Year	Accumulated Costs		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015*1)	million Pesos
		1998-2015	1998-2010																			
A1		67,397	59,298	665	758	1,186	1,544	18,901	18,338	9,730	1,106	1,209	1,312	1,415	1,517	1,620	1,620	1,620	1,620	1,620	1,620	1,620
A2		52,117	34,722	665	758	1,141	1,514	5,881	5,318	3,220	1,293	1,417	1,587	1,696	5,707	4,526	1,960	1,945	6,563	5,013	1,915	1,915
B1		71,088	63,539	665	758	1,186	1,664	18,981	21,023	11,521	1,071	1,159	1,247	1,335	1,422	1,510	1,510	1,510	1,510	1,510	1,510	1,510
B2		55,284	39,629	665	758	1,141	1,664	5,981	9,029	5,694	1,132	1,219	1,351	1,423	5,396	4,178	1,612	1,597	6,215	4,665	1,567	1,567
C1		72,869	65,900	665	758	1,186	1,664	19,061	21,880	12,853	1,088	1,175	1,262	1,349	1,436	1,523	1,523	1,523	1,523	1,523	877	877
C2		57,138	41,982	665	758	1,141	1,664	6,021	9,869	7,017	1,156	1,243	1,376	1,448	5,422	4,204	1,638	1,623	6,241	4,691	964	964
D1		73,892	66,632	665	758	1,186	1,664	19,141	21,900	13,007	1,160	1,250	1,340	1,431	1,521	1,611	1,611	1,611	1,611	1,611	815	815
D2		58,139	42,630	665	758	1,141	1,664	6,101	9,804	7,119	1,231	1,324	1,462	1,539	5,518	4,305	1,739	1,724	6,342	4,793	913	913
E1		77,741	70,261	665	799	2,404	2,759	12,543	13,275	9,211	1,754	1,843	6,346	5,320	8,426	4,917	2,655	2,655	2,655	2,655	-3,137	-3,137
E2		78,267	69,842	665	758	1,231	1,634	14,886	16,885	10,366	2,577	2,667	2,803	2,878	6,855	5,640	3,029	3,029	3,029	3,029	3,029	3,690
F1		120,299	107,818	665	758	1,321	1,634	28,797	29,228	16,269	4,637	4,725	4,814	4,902	4,991	5,079	5,079	5,079	5,079	5,079	5,079	7,835
F2		102,307	89,884	665	758	1,306	1,624	21,639	22,100	12,710	4,628	4,716	4,804	4,891	4,979	5,066	5,066	5,066	5,066	5,066	5,066	7,843

Note: *1) The life period of the facilities developed is assumed to be 15 years from the completion on an average.

The salvage costs are estimated as the negative costs in 2015.

Table 13.34 Potential Budget of SWM Costs

		Table 13.34 Potential Budget of SWM Costs																		million Pesos			
		Total	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015			
Projected GRDP in Metro Manila at constant 1997 prices			871,924	928,599	988,958	1,048,296	1,111,193	1,177,865	1,248,537	1,323,449	1,402,856	1,487,028	1,576,249	1,670,824	1,771,074	1,841,917	1,915,594	1,992,217	2,071,906	2,154,782			
Allocation of budget to SWM																							
1) 0.30 % of GRDP		66,570					1,667	3,534	3,746	3,970	4,209	4,461	4,729	5,012	5,313	5,526	5,747	5,977	6,216	6,464			
2) 0.40 % of GRDP		88,760					2,222	4,711	4,994	5,294	5,611	5,948	6,305	6,683	7,084	7,368	7,662	7,969	8,288	8,619			
3) 0.50 % of GRDP		110,949					2,778	5,889	6,243	6,617	7,014	7,435	7,881	8,354	8,855	9,210	9,578	9,961	10,360	10,774			

Note: GRDP is estimated based on the socioeconomic framework (Base Case).

Table 13.35 Cashflow and FIRR of 12 Technical Alternatives
(1) Allocation of 0.3 % of GRDP to SWM

		million Pesos																			
Year		FIRR	Net Cashflow	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Alternative A	A1		-827	-665	-758	-1,186	-1,544	-17,234	-14,804	-5,985	2,864	3,000	3,150	3,314	3,495	3,693	3,906	4,127	4,357	4,596	4,845
	A2	11.9%	14,453	-665	-758	-1,141	-1,514	-4,214	-1,784	525	2,677	2,791	2,874	3,033	-695	787	3,566	3,802	-586	1,202	4,550
	B1		-4,518	-665	-758	-1,186	-1,664	-17,314	-17,489	-7,775	2,899	3,050	3,215	3,394	3,590	3,803	4,016	4,237	4,467	4,706	4,955
	B2	7.2%	11,285	-665	-758	-1,141	-1,664	-4,314	-5,495	-1,949	2,838	2,990	3,110	3,306	-384	1,135	3,914	4,150	-238	1,550	4,898
	C1		-6,300	-665	-758	-1,186	-1,664	-17,394	-18,347	-9,108	2,882	3,034	3,199	3,385	3,576	3,790	4,003	4,224	4,453	4,692	5,587
	C2	5.6%	9,431	-665	-758	-1,141	-1,664	-4,354	-6,335	-3,271	2,814	2,965	3,085	3,281	-410	1,109	3,888	4,124	-264	1,524	5,500
	D1		-7,323	-665	-758	-1,186	-1,664	-17,474	-18,367	-9,262	2,811	2,959	3,121	3,298	3,491	3,702	3,915	4,136	4,365	4,604	5,649
	D2	5.1%	8,430	-665	-758	-1,141	-1,664	-4,434	-6,270	-3,374	2,739	2,885	3,000	3,190	-506	1,008	3,787	4,023	-365	1,423	5,553
	E1		-11,172	-665	-799	-2,404	-2,759	-10,876	-9,741	-5,466	2,216	2,366	-1,885	-591	-3,413	397	2,871	3,092	3,322	3,561	9,602
	E2		-11,697	-665	-758	-1,231	-1,634	-13,219	-13,351	-6,620	1,394	1,542	1,659	1,851	-1,843	-327	2,497	2,718	2,948	3,187	10,155
	F1		-53,730	-665	-758	-1,321	-1,634	-27,130	-25,694	-12,523	-666	-517	-352	-174	22	234	447	668	897	1,136	14,300
	F2		-35,737	-665	-758	-1,306	-1,624	-19,972	-18,567	-8,965	-658	-507	-342	-162	34	247	460	681	910	1,149	14,307

T(2) Allocation of 0.4 % of GRDP to SWM

T(2) Allocation of 0.4 % of GRDP to SWM)																						million Pesos				
Alternative	Year	FIRR	Net Cashflow	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015					
Alternative A	A1	5.7%	21,363	-665	-758	-1,186	-1,544	-16,678	-13,626	-4,736	4,188	4,402	4,637	4,890	5,166	5,465	5,748	6,043	6,349	6,668	6,999					
	A2	23.8%	36,643	-665	-758	-1,141	-1,514	-3,659	-607	1,774	4,001	4,194	4,361	4,609	976	2,559	5,408	5,718	1,406	3,274	6,704					
	B1	4.4%	17,672	-665	-758	-1,186	-1,664	-16,758	-16,312	-6,527	4,223	4,452	4,702	4,970	5,261	5,575	5,858	6,153	6,459	6,778	7,109					
	B2	17.8%	33,475	-665	-758	-1,141	-1,664	-3,759	-4,317	-700	4,162	4,392	4,597	4,882	1,287	2,907	5,756	6,066	1,754	3,622	7,052					
	C1	3.8%	15,890	-665	-758	-1,186	-1,664	-16,838	-17,169	-7,859	4,206	4,436	4,686	4,956	5,247	5,561	5,844	6,139	6,446	6,764	7,742					
	C2	15.9%	31,621	-665	-758	-1,141	-1,664	-3,799	-5,157	-2,022	4,138	4,368	4,572	4,857	1,261	2,881	5,730	6,040	1,728	3,596	7,655					
	D1	3.6%	14,867	-665	-758	-1,186	-1,664	-16,918	-17,189	-8,013	4,134	4,362	4,608	4,874	5,162	5,473	5,756	6,051	6,358	6,676	7,804					
	D2	15.4%	30,620	-665	-758	-1,141	-1,664	-3,879	-5,092	-2,125	4,063	4,288	4,487	4,766	1,165	2,779	5,628	5,938	1,627	3,495	7,708					
	E1	3.3%	11,018	-665	-799	-2,404	-2,759	-10,320	-8,564	-4,217	3,540	3,769	-398	985	-1,742	2,168	4,713	5,008	5,314	5,633	11,757					
	E2	3.0%	10,493	-665	-758	-1,231	-1,634	-12,663	-12,174	-5,372	2,717	2,944	3,146	3,427	-172	1,445	4,339	4,634	4,940	5,259	12,509					
	F1		-31,540	-665	-758	-1,321	-1,634	-26,575	-24,517	-11,275	657	886	1,135	1,403	1,693	2,005	2,288	2,583	2,890	3,208	16,454					
	F2		-13,547	-665	-758	-1,306	-1,624	-19,417	-17,389	-7,716	666	896	1,145	1,414	1,705	2,018	2,301	2,596	2,903	3,221	16,462					

13.4.2 Cost Estimates of Technical Alternative E1

Table 13.36 Cost Estimate for Technical System (1998 - 2010)

million Peso				
Total cost	Total cost	1998-2000	2001-2005	2006-2010
1) Collection & Haulage	11,400	1,900	3,900	5,600
Capital cost	(0)	(0)	(0)	(0)
O & M	(11,400)	(1,900)	(3,900)	(5,600)
2) Intermediate Treatment	25,500	300	10,800	14,400
Capital cost	(21,500)	(100)	(9,900)	(11,500)
O & M	(4,000)	(200)	(900)	(2,900)
3) Final Disposal site	33,300	1,700	24,700	6,900
Capital cost	(32,600)	(1,600)	(24,400)	(6,600)
O & M	(700)	(100)	(300)	(300)
4) Total 1)+2)+3)	70,200	3,900	39,400	26,900
Capital cost	(54,100)	(1,700)	(34,300)	(18,100)
O & M	(16,100)	(2,200)	(5,100)	(8,800)

Table 13.37 Cost Estimate for Technical System (1998 - 2010)

%				
Total cost	Total cost	1998-2000	2001-2005	2006-2010
1) Collection & Haulage	16.2%	48.7%	9.9%	20.8%
Capital cost	(0.0%)	(0.0%)	(0.0%)	(0.0%)
O & M	(100.0%)	(100.0%)	(100.0%)	(100.0%)
2) Intermediate Treatment	36.3%	7.7%	27.4%	53.5%
Capital cost	(84.3%)	(33.3%)	(91.7%)	(79.9%)
O & M	(15.7%)	(66.7%)	(8.3%)	(20.1%)
3) Final Disposal site	47.4%	43.6%	62.7%	25.7%
Capital cost	(97.9%)	(94.1%)	(98.8%)	(95.7%)
O & M	(2.1%)	(5.9%)	(1.2%)	(4.3%)
4) Total 1)+2)+3)	100.0%	100.0%	100.0%	100.0%
Capital cost	(77.1%)	(43.6%)	(87.1%)	(67.3%)
O & M	(22.9%)	(56.4%)	(12.9%)	(32.7%)

Table 13.38 Cost Estimate for Technical Alternative E1 (1998 - 2010)

million Peso				
	Total cost	1998-2000	2001-2005	2006-2010
1. Technical System				
-Capital Cost	54,100	1,700	34,300	18,100
-Operation & Maintenance Cost	16,100	2,200	5,100	8,800
Subtotal	70,200	3,900	39,400	26,900
2. Institutional Arrangement	200	100	50	50
3. Compensation	2,100		2,100	
Total Cost	72,500	4,000	41,550	26,950

Table 13.39 Cost Estimate of Technical System E1

Year		Total	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
1. Collection & Haulage	Investment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	O & M	18,079	595	634	665	705	738	774	811	917	970	1,026	1,089	1,143	1,335	1,335	1,335	1,335	1,335	1,335
	Sub-total(1)	18,079	595	634	665	705	738	774	811	917	970	1,026	1,089	1,143	1,335	1,335	1,335	1,335	1,335	1,335
2. Intermediate Treatment	Investment	21,720	0	0	124	282	1,529	4,986	2,802	461	461	4,613	3,497	2,817	149	0	0	0	0	0
	O & M	10,226	38	50	70	93	123	151	177	333	365	395	417	449	1,261	1,261	1,261	1,261	1,261	1,261
	Sub-total(2)	31,946	38	50	194	375	1,652	5,136	2,978	794	827	5,007	3,914	3,266	1,410	1,261	1,261	1,261	1,261	1,261
sum(1+2)		50,025	633	684	858	1,080	2,390	5,910	3,789	1,711	1,797	6,033	5,003	4,409	2,746	2,596	2,596	2,596	2,596	2,596
3. Final Disposal Site	Investment	32,567	0	81	1,510	1,624	10,093	7,302	5,355	0	0	264	264	3,962	2,113	0	0	0	0	0
	O & M	941	31	34	36	56	59	63	67	43	46	49	52	55	58	58	58	58	58	58
	Sub-total(3)	33,508	31	115	1,546	1,679	10,153	7,365	5,422	43	46	313	316	4,017	2,171	58	58	58	58	58
Total(1+2+3)		83,533	665	799	2,404	2,759	12,543	13,275	9,211	1,754	1,843	6,346	5,320	8,426	4,917	2,655	2,655	2,655	2,655	2,655

Note: Salvage cost is not taken into account.

Table 13.40 Cashflow of Technical System E1

(1) Cashflow of Investment Cost

	Investment 1998-2010 (mil. Pesos)	Investment 1998-2015 (mil. Pesos)	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
1. Transfer Station	3,961.0	3,961.0				158.4	158.4	2,376.6	1,267.5											
2. Compost Plant	2,668.6	2,668.6					133.4	1,681.2	853.9											
3. Recycling Center	466.5	466.5											37.3	279.9	149.3					
4. Incineration Plant	14,623.5	14,623.5			123.5	123.5	1,237.0	927.8	680.3	461.3	461.3	4,612.5	3,459.5	2,537.0						
5. Disposal Site	32,567.3	32,567.3	81.3	1,509.8	1,509.8	1,623.6	10,093.4	7,301.9	5,354.7			264.1	264.1	3,961.5	2,112.8					
G-Total of Investment Cost	54,286.3	54,286.3	81.3	1,633.3	1,633.3	1,905.5	11,622.3	12,287.5	8,156.5	461.3	461.3	4,876.6	3,760.9	6,778.4	2,262.1					

(2) Cashflow of Operation and Maintenance Cost

	O&M 1998-2010 (mil. Pesos)	O&M 1998-2015 (mil. Pesos)	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
0. Collection (ordinary operation)	11,403.0	18,079.3	595.3	634.3	664.8	705.3	738.0	774.0	811.3	917.0	970.0	1,026.0	1,083.3	1,142.8	1,335.3	1,335.3	1,335.3	1,335.3	1,335.3	1,335.3
1. Transfer Station	1,592.3	2,128.5	38.0	49.8	70.0	92.8	123.3	150.5	176.5	97.8	130.3	159.8	182.3	214.3	107.3	107.3	107.3	107.3	107.3	107.3
total(0+1)	12,995.3	20,207.8	633.3	684.0	734.8	798.0	861.3	924.5	987.8	1,014.8	1,100.3	1,185.8	1,271.5	1,357.0	1,442.5	1,442.5	1,442.5	1,442.5	1,442.5	1,442.5
2. Compost Plant	443.6	2,005.5								26.3	26.3	26.3	26.3	26.3	312.4	312.4	312.4	312.4	312.4	312.4
3. Recycling Center	14.5	87.0													14.5	14.5	14.5	14.5	14.5	14.5
4. Incineration Plant	1,870.6	6,005.0								208.8	208.8	208.8	208.8	208.8	826.9	826.9	826.9	826.9	826.9	826.9
5. Disposal Site	649.8	941.0	31.3	33.8	36.3	55.5	59.3	63.0	67.0	43.0	46.0	49.0	52.3	55.3	58.3	58.3	58.3	58.3	58.3	58.3
G-Total of O & M	15,973.8	29,246.3	664.5	717.8	771.0	853.5	920.5	987.5	1,054.8	1,292.8	1,381.3	1,469.8	1,558.8	1,647.3	2,654.5	2,654.5	2,654.5	2,654.5	2,654.5	2,654.5

(3) Total

Total Cost of Technical System E1	70,260.6	83,533.1	664.5	799.0	2,404.3	2,759.0	12,542.8	13,275.0	9,211.2	1,754.0	1,842.5	6,346.4	5,319.7	8,425.7	4,916.6	2,654.5	2,654.5	2,654.5	2,654.5	2,654.5
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Table 13.41 Potential Financial Resources for the Additional Budget of Proposed Projects/Programs

	Total	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
1 Projected GRDP in Metro Manila at constant 1977 prices		871,924	928,599	988,958	1,048,296	1,111,193	1,177,865	1,248,537	1,323,449	1,402,856	1,487,028	1,576,249	1,670,824	1,771,074	1,841,917	1,915,594	1,992,217	2,071,906	2,154,782
2 Population (thousand)																			
1) Population		10,389	10,721	11,064	11,396	11,738	12,090	12,453	12,827	13,160	13,502	13,853	14,214	14,583	14,875	15,172	15,476	15,785	16,101
2) Household		2,078	2,144	2,213	2,279	2,348	2,418	2,491	2,565	2,632	2,700	2,771	2,843	2,917	2,975	3,034	3,095	3,157	3,220
3 Waste (thousand ton)																			
1) Generation	57,861	2,096	2,242	2,388	2,514	2,641	2,768	2,895	3,022	3,170	3,318	3,466	3,614	3,762	3,837	3,914	3,992	4,072	4,153
2) Collection	46,188	1,387	1,498	1,610	1,748	1,887	2,025	2,164	2,302	2,491	2,680	2,868	3,057	3,245	3,310	3,376	3,444	3,513	3,583
3) Disposal	43,048	1,335	1,440	1,545	1,677	1,809	1,941	2,073	2,115	2,291	2,467	2,643	2,819	2,995	3,055	3,116	3,178	3,242	3,307
4 LGU Burden/additional (mil. Pesos)																			
1) LGU Budget Revenue	664,582	21,798	23,215	24,724	26,207	27,780	29,447	31,213	33,086	35,071	37,176	39,406	41,771	44,277	46,048	47,890	49,805	51,798	53,870
2) Additional SWM Exp.	26,583	872	929	989	1,048	1,111	1,178	1,249	1,323	1,403	1,487	1,576	1,671	1,771	1,842	1,916	1,992	2,072	2,155
3) Share in GDRP		0.100%	0.100%	0.100%	0.100%	0.100%	0.100%	0.100%	0.100%	0.100%	0.100%	0.100%	0.100%	0.100%	0.100%	0.100%	0.100%	0.100%	0.100%
5 Additional LGU Contribution to MMDA																			
1) Contribution (mil. Pesos)	23,260	763	813	865	917	972	1,031	1,092	1,158	1,227	1,301	1,379	1,462	1,550	1,612	1,676	1,743	1,813	1,885
3) Share in GDRP		0.088%	0.088%	0.088%	0.088%	0.088%	0.088%	0.088%	0.088%	0.088%	0.088%	0.088%	0.088%	0.088%	0.088%	0.088%	0.088%	0.088%	0.088%
6 User Charge from household																			
1) User Charge/month/family(Pesos)		40	41	42	44	45	46	48	49	51	52	54	55	57	59	61	62	64	66
2) User Charge (mil. Pesos)	30,500	997	1,060	1,127	1,195	1,268	1,345	1,427	1,514	1,600	1,691	1,787	1,889	1,996	2,097	2,203	2,315	2,432	2,555
3) Share in GDRP		0.114%	0.114%	0.114%	0.114%	0.114%	0.114%	0.114%	0.114%	0.114%	0.114%	0.113%	0.113%	0.113%	0.114%	0.115%	0.116%	0.117%	0.119%
7 Tipping Fee																			
1) Tipping Fee/ton (Pesos)		600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600
2) Tipping Fee (mil. Pesos)	25,829	801	864	927	1,006	1,085	1,165	1,244	1,269	1,375	1,480	1,586	1,692	1,797	1,833	1,870	1,907	1,945	1,984
3) Share in GDRP		0.092%	0.093%	0.094%	0.096%	0.098%	0.099%	0.100%	0.096%	0.098%	0.100%	0.101%	0.101%	0.101%	0.100%	0.098%	0.096%	0.094%	0.092%

CHAPTER 14

PUBLIC OPINION SURVEY

14. PUBLIC OPINION SURVEY

14.1 Objectives

The objectives of the Public Opinion Survey are:

- to provide data on community participation, and
- to evaluate possible ways of introducing user charges.

14.2 Methodology

14.2.1 Process of Survey

The survey is carried out in the following way:

- selection of the object household in the barangay or areas indicated by the JICA Study Team,
- preparation of interview survey,
- implementation of interview survey, and
- analysis and compilation of results.

14.2.2 Target Areas

The Public Opinion Survey was conducted by interview survey for individual households that can be divided into high, middle and low incomes. This survey was carried out at fifteen areas including 3 cities as shown in Table 14.1.

Table 14.1 Targets of Social Acceptance Survey

No.	Target Barangays	Municipality	No. of Sampling
1	Commonwealth	Quezon	100
2	Bagbag		100
3	Vasra		100
4	Central		100
5	Quirino 3A		100
6	Don Manuel		100
7	Veterans Village		100
8	Kamuning		100
9	South Triangle		100
10	San Isidro	Parañaque	100
11	Sun Valley		100
12	Merville	Makati	100
13	Bangkal		100
14	Guadalupe		100
15	Poblacion		100

14.2.3 Outline of Questionnaire

The outline of the Questionnaire are as follows:

- interviewee's data
- garbage disposal
- recycling
- garbage fee
- overall environment

The Questionnaire sheet and a field interview manual are presented in Chapter 5 in the Data Book.

14.3 Results

The data obtained from the Public Opinion Survey are presented in Chapter 5 in the Data Book.

14.3.1 Introduction

The Public Opinion Survey is a very important tool not only for the knowledge of the status of the solid waste services operation, as perceived by the population but also for addressing proposals of changes in the delivery of these services.

A brief analysis on the most relevant issues as expressed by the opinion of the population surveyed is therefore presented ahead. The analysis gives clues to the authorities and decision-makers of the Metro Manila LGUs when selecting the alternatives of the technical as well as financial system that shall be implemented in order to improve the current situation of service delivery in the region.

It should be reminded that, although more limited in scope, other Opinion Surveys were also conducted along with the first phase of the Metro Manila Solid Waste Management Master Plan study, such as the Public Opinion Survey for recycling and the Garbage Collector Survey. These surveys should therefore be also considered in order to complement and enhance the outcomes of the Public Opinion Survey.

14.3.2 Household and Informant

The informant of the questionnaire survey has been, predominantly, a woman, (65%) the house wife rating in the first place (43%) and the housekeeper — almost always a woman - as second (23%). The husband accounts only for 18 % of the surveyed persons. A category of "other family member" was also included in the questionnaire, and accounted for 16% but the gender was not addressed, although it is valid to assume that most of the respondents in this category were also female. In summary, at least more than 2/3 of the respondents were women.

This circumstance helps to understand some of the answers and the attitude of the respondents when answering the survey, as observed by the surveyors. As a matter of

fact, the surveyors show that 92 % of the respondents have been "Very cooperative" or "cooperative" for the interview.

There was a fair distribution of economic status of the respondents of the survey. According to the understanding of the surveyors, the households where the questionnaires were presented, were rated as 36 % as high or medium high level income level, 32% as Medium level, and 33% as low and squatter.

The owners (58 %) occupied most of the households and 24 % were rented. The complement to 100 % is made by other less important situations, as "occupied, rent free" (13%) and others.

The type of the building of the respondents was predominantly "single" (46%) "barong barong" rated as second (15%) and others less important following, and only in 22% of the samples, the dwelling unit was shared with other households.

Most of these houses are located in roads of asphalt or concrete (93 %) showing that, most often, there is accessibility to the households, at least from the point of view of pavement.

Water supply and liquid waste disposal reinforce the status of the sample: 74 % have faucet in the house and 57 % have flush toilets, showing that only about one third of the sample have poor sanitation conditions.

Important also is to acknowledge that more than 90% of the interviewed say that they have problems either with rats, mice, flies, mosquitoes or cockroaches, reinforcing the perception of poor sanitation conditions, even in non-poor areas.

14.3.3 Solid Waste Collection

Solid waste collection is the phase of solid waste management where public cooperation is deemed to be most important and active. Due to this fact, special importance was given to that part of the survey, as it is shown following.

The majority of the population (80 %) see garbage collection as a municipality operation, only 18 % understand it as being carried out by contractors, despite the fact that today, most of the collection in Metro Manila being made by private collectors, most working for the LGUs.

Storage of garbage is usually made in disposable containers: plastic bags (51 %) and sacks (19%) showing that the old habit of storage in garbage cans is disappearing. As a matter of fact, it was found that, in less than one third of the household trashcans are still being used.

This fact is quite positive, due to the implications of speeding up the collection operation and enhancing general hygiene that this method of storage implies.

The frequency of collection is acknowledged by most people as twice a week (37.0%), rated second to "no fixed schedule". Time of collection is also perceived by the population as "fixed" by only 18% of the interviewed sample.

The situation found through these answers is very worrisome and deceptive, because it shows that the most crucial mechanism for gaining public cooperation, i.e., fixed time and day of collection is not fulfilled for at least 82 of the households.

Place of collection is most usually the curbside or sidewalk (45%), or within premises (36%). Community bins are being used only by less than 10 % of the respondents, these bins are located at distances less than 20 meters from the household of the respondents in 88% of the cases. It is interesting also to observe that, about 55% of the people using these bins are not happy with this method of collection.

When not collected, the generated waste is most usually burned (44%), with many other alternatives for getting rid of the garbage, some not specified, following this procedure, most important being "dumped in vacant lot" and "dumped in river/estero".

Special waste, such as bulky items, demolition debris, etc., is in about half of the cases collected by regular collection trucks, followed in importance by collection by push cart, or dumping nearby.

The final verdict on the quality of collection system may be stated as quite negative, since about 50 % of the respondent rates it as "unsatisfactory" recommending that frequency and time of collection is improved.

14.3.4 Recycling

Although a dedicated survey about recycling has also been conducted, the public opinion survey also briefly approached this issue.

As a whole, a large majority (87%) of the surveyed people think that "it is important to recycle material from waste" and surprisingly, about 50% says that "practices garbage segregation" showing some coherence with the awareness of location of shops where recyclables are sold.

Only about half the surveyed people has acknowledge "any campaign for waste segregation before collection", most commonly (in 55% of the cases) through the media (radio/TV/newspaper), rated second community meeting (18%) and third (13%) "house to house communication". Last placed was "school" with only 7% of the answers.

Those that don't do any segregation don't explain much why they don't do it (no answer: 49%), only 8% saying that it is "very troublesome". For those that segregate, the most common items separated are paper (56%), Bottles (67%) and plastics (43%).

These answers show that recycling practices are common in Metro Manila and that there is ground to enhance it through special policies and campaigns.

14.3.5 Garbage fee

Garbage fee is fundamental to cost recovery, and usually raises many political problems when implemented, if it is not a tradition in the community. Therefore it is very important to know what is the public opinion on this issue and how to overcome the opposition to it.

From the 'public opinion survey' it can be inferred that most of the people in Metro Manila neither pay directly for solid waste management nor think that it should pay. As a matter of fact, the survey shows that 75 % of the interviewed do not pay a garbage fee and a coherent 76 % think that they should not pay.

Only those living in the wealthy sub divisions agree that garbage collection should be paid directly, in this case, to the Village Homeowners Association (45%) of the interviewed.

The main reason for not paying is, according to the perception of the people, is that the LGU should bear the cost of the services. Majority of the people (72%) also thinks that, unlike to water supply, garbage collection (or solid waste management) should be provided at no cost for the people as a whole. The same behavior applies to electricity supply, 68 % of the surveyed saying that garbage collection should not cost anything as compared to electricity.

For those that agree that something should be paid for solid waste management, about 22% think that its cost should be 10 % of electricity and 28% think it should be 10% of water supply.

14.3.6 General perception and conclusion

Although most of the interviewed (60%) rate garbage collection as the most pressing problem of their community, awareness about solid waste management and related issues is very poor. As a matter of fact, 77 % of the interviewed don't know "where the garbage is brought to after collection" and almost 56 % think that MMDA is the authority responsible for solid waste management, when that agency is solely responsible for part of transfer operations and disposal.

It should be observed however that 55 % of the respondents say that "never had any guidance on methods of garbage handling". Making people aware of the solid waste problem and its solutions is an obligation of government, in the case, of the LGUs.

Another obligation of the government, not fulfilled in most of the LGUs, is to provide a timely household collection service, with fixed dates and times of pick up. This is basic to the improvement of any solid waste collection service and a requirement for gaining public cooperation.

The lack of trust of the population in the LGUs services, and the low quality of these services, as they are provided today, may be are the main reasons why the majority of the people reacts so unfavorable to the payment of a garbage tax.

Therefore, a final and brief conclusion from the survey is that there is ample ground for increasing the community participation in the operational as well as in the financial support of the systems, provided that the LGUs play its part, enhancing the quality of the services, and embarking on a permanent effort to make the people aware of their role in the refuse cycle.

CHAPTER 15

RECYCLING OPINION SURVEY



15. RECYCLING OPINION SURVEY

15.1 Objectives

The objectives of the Recycling Opinion Survey are:

- to sound residents on intention of resource recycling,
- to use the results of the survey for formulation of recycling projects.

15.2 Methodology

15.2.1 Target areas

The Recycling Opinion Survey was conducted by interview survey for individual households. The survey was carried out at three areas which will conduct or be conducting resource recycling programs. The target areas and number of samples are shown in Table 15.1.

Table 15.1 Targets of Recycling Opinion Survey

Target Areas	Municipality	No. of Samples
Soldier's Hill	Muntinlupa	250
Barangay 899, 900	Manila	250
West Kamias/East Rodrigues	Quezon	250

15.2.2 Outlines of Questionnaire

The outline of the Questionnaire are as follows:

- interviewee's data
- waste generation
- waste segregation
- storage of waste
- collection of waste
- recycling
- community participation for recycling

The Questionnaire sheet and a field interview manual are presented in Chapter 6 in the Data Book.

15.3 Results

15.3.1 Introduction

The obtained data from the Recycling Opinion Survey are presented in Chapter 6 in the Data Book.

The three LGUs incorporated in the survey, Manila, Quezon City and Muntinlupa, are quite different from socio-economic point of view. As can be seen in Table 2, Manila represents LGUs with a large percentage built up area, high population density, and comparatively low average income. Muntinlupa, on the other hand, represents LGUs with a low percentage built up area, and low population density. Quezon City represents LGUs in between these two extremes.

Table 15.2 Socio-economic Characteristics of Manila, Muntinlupa and Quezon City

LGU	Land Area	Built up Area 1994	Residential Area 1994	Population Density	Household Size	Average Income
Unit	km ²	%	%	Pers/ha	Persons	Pesos
Source	NSO	WSSMP, 1995	NSO, 1995		NSO, 1995	NSO, 1994
Manila	38.3	90.2	63.9	432.1	4.85	146,638
Quezon City	166.2	51.2	36.0	119.7	4.76	189,574
Muntinlupa	46.7	38.5	28.5	85.6	4.80	155,959 ¹

Note: NSO = National Statistics Office, The Philippines
WSSMP=JICA Water Supply and Sewerage Master Plan, 1995
¹ Average income for 8 LGUs without individual income information

The analysis of the survey aimed at establishing the interviewees habits and views on waste handling, segregation and recycling. Efforts were also made to try to identify any relationships between the recycling patterns and opinions, and the different socio-economic characteristics of the surveyed LGUs.

15.3.2 Interviewee's Data

In 60-70% of the cases, the interviewees have been either the husband or the wife. The type of dwelling reflects the differences in population density. A majority of the interviewees in Muntinlupa, a LGU with comparably low population density, live in single houses, while most of the interviewees in Manila live in tenements.

15.3.3 Waste Generation

The waste generation shows some similarities between the LGUs, such as that glass bottles is generated in around 80-90% of the households answering the question. However, there are also differences. Newspaper, for example, is generated in around 65% of the households answering the question in Muntinlupa, but only in 35% of the households answering the question in Manila.

15.3.4 Waste Segregation

Waste is segregated in recyclable and non-recyclable waste in around 50% of the interviewee's households in Muntinlupa, in around 40% of the interviewee's households in Manila and in around 20% of the interviewee's households in Quezon City.

The waste in Quezon City is mainly segregated in wet and dry garbage, while the households in Muntinlupa and Manila pay more attention to segregation of saleable

and useful items. This waste segregation pattern reflects the average income in the different LGUs, since Quezon City, having the highest average income, puts least emphasis on segregation of saleable and useful items.

Regarding the residents feeling during waste segregation, the number of responses was much larger in Muntinlupa and Manila than in Quezon City. A comparably large portion of the interviewees in Manila and Quezon City responded that they feel positive during waste segregation, while many respondents in Muntinlupa cited that they feel recycling to be "in the nature of things".

Lack of time was the dominating reason given for not segregating waste in Muntinlupa. This could possibly be related to the remote location of Muntinlupa, which require residents to spend comparably more time commuting to and from their work. In Manila, where the majority of the residents live in tenements, lack of space was cited as the major obstacle to waste segregation.

15.3.5 Storage of Waste

The responses to questions about storage of waste from the interviewees in the three LGUs are quite similar, except that a large part of interviewees in Manila and Quezon store their waste in the room, while interviewees in Muntinlupa mainly store their waste at the entrance or other places. This reflects the differences in dwelling type in the three districts.

15.3.6 Collection of Waste

Questions about responsibility for waste handling revealed that the wives in Manila take a comparably larger responsibility for waste matters than in the other two LGUs. Maids involvement are largest in Muntinlupa.

The frequency of waste collection seems to be inversely proportional to the population density. In Muntinlupa, the waste is generally collected 1 - 2 times a week, while in Manila, the waste is collected at least 5 times a week in around 75% of the interviewee's households.

Fees are paid to garbage collectors in relatively few of the interviewee's households. In Manila, 39 of the interviewees are paying a fee, in Muntinlupa 22, while in Quezon City only 3 are paying a garbage collection fee.

The fee paid to waste collectors seems to be related to the population density in the area, reflecting the efforts required to reach the households. In Manila, around 90% of the interviewees pay 20 Pesos/week or less, while in Muntinlupa, around 90% of the interviewees pay at least 30 Pesos per week.

The questions on recyclable waste reveal that the so-called eco-aides, belonging to the Linis Ganda recycling NGO, are the most common collectors of recyclables. Kitchen waste is mainly given to neighbours.

The frequency of recyclables collection is for most items either daily or once a week.

15.3.7 Recycling

The survey reveal that recycling is practiced in 20-30% of the interviewees households in Manila and Quezon City and around 50% of the interviewees households in

Muntinlupa. In all three areas the recycling is generally said to include selling bottles and newspapers, reusing plastic bags, and using the kitchen waste as hogfeed.

For the interviewees that do not recycle waste, the most common excuses given were lack of time and space at home. In Quezon City, 30% of the interviewees claimed that they did not know how to recycle.

15.3.8 Community Participation

There is a noticeable difference in the involvement in waste management activities among the interviewees. In Muntinlupa around 60% are involved or interested in joining community activities for waste management, while in Quezon City only around 30% are involved or interested in joining.

The questions related to residents opinion on collection fees reveal an interesting inverse relationship between willingness to pay and average income. In Manila, having the lowest average income, around 60% of the interviewees are willing to pay, while in Quezon City, with the highest average income, only around 35% are willing to pay garbage collection fees. The amount the interviewees are willing to pay is around 5 Pesos per week for households in Manila and Quezon City, while the interviewees in Muntinlupa are willing to pay between 5 and 50 Pesos per week.

15.3.9 Conclusions

The survey reveals that waste is segregated and recycled in around 50% of the households in Muntinlupa, and around 20-40% of the households in Manila and Quezon City. Even though these are not very high figures, they indicate that at present there is an understanding for waste segregation and recycling, and potential for further promoting and expanding the systems. The larger percentage of the interviewees in Muntinlupa segregating their waste could possibly be related to the comparably higher percentage of one family dwellings in this area, facilitating waste segregation and storage of segregated waste. However, the fact that the Mayor in Muntinlupa takes an active interest in SWM matters could also be a contributing factor.

The survey on opinion on waste collection fees reveals an interesting inverse relationship between the willingness to pay and the average household income. In Manila, having a comparably low average income, the willingness to pay for waste collection services were higher than in Quezon City. This can possibly be explained by that the dwelling size in Manila is comparably small, and the impact on life from uncollected waste therefore is high.