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Centre on Regulation and Competition

WORKING PAPER SERIES

Paper No. 81

**PRO-POOR WATER SERVICES IN  
METRO MANILA: IN SEARCH FOR  
GREATER EQUITY**

**Jocelyn C. Cuaresma**  
**University of the Philippines**

June 2004

**ISBN: 1-904056-80-6**

Further details: Centre Secretary  
Published by: Centre on Regulation and Competition,  
Institute for Development Policy and Management, University of Manchester,  
Harold Hankins Building, Precinct Centre, Oxford Road, Manchester M13 9QH, UK  
Tel: +44-161 275 2798 Fax: +44-161 275 0808  
Email: [crc@man.ac.uk](mailto:crc@man.ac.uk) Web: <http://idpm.man.ac.uk/crc/>

# **PRO-POOR WATER SERVICES IN METRO MANILA: IN SEARCH FOR GREATER EQUITY<sup>1</sup>**

## ***Abstract***

This paper examines the water and sewerage service delivery programs for the poor residents in the MWSS service area. Specifically, it analyzes the pro-poor water programs of the MWCI and MAYNILAD, the private water concessionaires of MWSS, by looking into the mechanisms adopted to expand access of the poor to water and sewerage services, number of hours that water is made available, and pricing/affordability of services. At the end, lessons are drawn from the experience for an improved regulation of the water concession.

## **INTRODUCTION**

Water tariffs in Metro Manila have increased nine times (or by more than 500 percent) since the private water concessionaires took over operations of the Metropolitan Waterworks and Sewerage System (MWSS) service area on 1 August 1997. In the last six-and-a-half years, water coverage has expanded in both zones to 82% in the East and 78% in the West, but with the West Zone Concessionaire missing its target.

Despite the tariff increases, 2.4 million of the 12.4 million people remain without access to piped drinking water, and only 8 percent has sewerage services. The Concession Agreement (CA) has no specific service commitments to improve service delivery to the poor and low-income households in the MWSS service area. Except for the requirement to maintain existing public faucets, it is discretionary on the part of the concessionaires to develop their own pro-poor water services delivery programs.

This paper examines the water services delivery programs of MAYNILAD and MWCI for the poor residents living within the MWSS service area. Specifically, it looks into the approaches adopted by the two water companies in expanding water coverage and enabling the poor to have access to piped drinking water.

The paper is presented in 4 parts. Part 1 presents a brief introduction and description of the regulatory framework for water. Part 2 examines the pro-poor water distribution programs of the two concessionaires for informal settlers within the service area of MWSS. Part 3 assesses the equity aspects of the prevailing water tariff structure and pricing policy. Part 4 sums up the issues and lessons learned on the impact of water regulation on service delivery to the poor customers of MWSS.

### **Brief on Privatization and Regulation**

The privatization of the Metropolitan Waterworks and Sewerage System (MWSS) in August 1997 was conceived as the solution to the government corporation's poor service delivery performance and huge foreign debt. Prior to privatization, MWSS was maintaining 825,000 water connections serving a total population of 7.32 million (or 66.5 percent coverage), and bills only about 42.7% of its 3,000 million liters daily water production. Water availability averaged 17 hours daily, while non-revenue water stood at 56%. In Metro Manila, 11% (or 1.27 million) of the population belongs to the poverty threshold level of income. Of the low-income households, 80% have no legal water connections for the reason that they have no legal claims over the land they occupy. In the absence of legal piped water connection, people buy water from vendors and from those with legal connections, draw water from shallow wells, wait for rainwater, or resort to illegal connections (Yu, 2002).

The regulation of the water sector, whether in the hands of government or the private sector, has been justified on various grounds, i.e., it is a case of a natural monopoly, water has no close substitutes, customers and service provider do not exercise equal bargaining power, etc. (Mitlin, 2002). The water and sewerage services sector, whether in public or private hands, is subject to a monopolistic market and must therefore be met with appropriate government regulation to ensure efficient provision, with protection to the most vulnerable sectors of society (Gleick et al 2002). Necessarily, price, water quality, manner of provision, among others, must be the subject of regulation.

The traditional meaning of regulation was the “sustained and focused control exercised by a public agency over activities that are valued by a community” (Cariño, August 2002; Minogue,

2001, and Baldwin and Cave, 1999:2, both cited in Cariño). Under the framework of governance, government exercise of regulatory powers has evolved to mean a deliberate attempt not only to steer, but also to enable and facilitate private sector investment. There are “sets of rules” justified on the “need to protect the public interest” and the need for the “creation or facilitation of conditions for effective markets” (Cariño, August 2002). In effect, government has to be able to balance the promotion of the interests of the private sector to that of the general public. The experience in the regulation of privately-operated water utilities show that privatization can work well in some cases, or to mixed or problematic results in others.

### **The MWSS Territorial Jurisdiction**

The MWSS service area was divided into the East and West Zones after privatization. The Manila Water Company, Inc. (MWCI), and the Maynilad Water Services, Inc (MAYNILAD) won the 25-year water concession for the East and West Zones, respectively. A brief profile of the East and West Zones are shown in Table 1.

**Table 1: Profile of the East and West Zone**

	MWCI (East Zone)	MAYNILAD (West Zone)
Consortium members	Ayala Corporation (60%), United Utilities (20%), Bechtel Corporation (10%), and Mitsubishi Corporation (10%)	Lopez-led Benpres Holding Corporation (60%), and Ondeo (subsidiary of Lyonnaise de Eaux (40%)
Population	4.96 million (40% of the total service population)	7.4 million (60% of the total service population)
Service Area (total of 1940 sq km)	1400 sq km	540 sq km
Areas Covered	Parts of Quezon City and Manila, Marikina, Mandaluyong, Makati, Pasig, Pateros, San Juan, Taguig all in NCR; Antipolo City, Angono, Baras, Binangonan, Cainta, Cardona, Jala-Jala, Morong, Pililia, Rodriguez, San Mateo, Tanay, Taytay and Teresa	Parts of Quezon City, Manila and Makati, Malabon, Navotas, Muntinlupa, Caloocan, Pasay, Paranaque, Las Pinas and Valenzuela all in NCR; Imus, Bacoor, Kawit, Noveleta, Rosario and Cavite City in Cavite
Assumed debt	US\$80 million	US\$800 million
Bid rate	Php2.32 per cubic meter	Php4.96 per cubic meter (peso-dollar exchange rate then was 26 pesos to one dollar)

Source: Cuaresma, 2003:3.

## **Water and Sewerage Service Obligations**

The Concession Agreement (CA) is basically neutral in its treatment of service obligations for the poor customers of MWSS (Cuaresma, 2003). The provisions on water and sewerage service obligations listed in Article 5 of the CA (summarized below for easy reference) contain no direct mandate that would obligate the concessionaires to provide water services to the poor. The provisions make no special preference to any particular type of customer, formal or informal, rich or poor. In reality, blighted and poor communities are last in priority for water connection, but first to experience reduced water supply or reduced water pressure in times of water scarcity.

### **1) Water service obligations**

Section 5.1.1 Water Supply; New Connections. This provision requires the concessionaires to offer water supply services to all existing customers in the service area, ...

Section 5.1.2 Continuity of Supply. This provision mandates the concessionaires to ensure the availability of an uninterrupted 24-hour supply of water to all connected customers by June 30, 2000; to supply water as a level of positive pressure or at a minimum pressure of 11 meters (16 pounds per square inch or psi) for all areas sufficient to secure the system against the ingress of untreated water or other contaminants. By 2007, water pressure of 16 psi shall apply for all pipelines throughout the service area.

Section 5.1.3 Obligations to Make Connections to a Water Main. This provision mandates the concessionaires to take action as soon as reasonably practicable on requests from customers for a connection to a water main.

Section 5.1.4 Drinking Water Quality Standards. This provision requires compliance with Philippine national Drinking Water Standards as published by the Department of Health.

Section 5.1.5 Obligation to Supply Water for Public Purposes. This refers to water for fire-fighting and other public purposes. In the case of use of water for fire-fighting, the concessionaire will not assess a charge.

Section 5.1.6 Provision of Water Other than Through a Water Main. Where there is no connection to a water main, the concessionaire shall supply water to customers other than through a water main at a fee equal to the costs reasonably and efficiently incurred by the concessionaire in supplying such water.

### **2) Sewer Service Obligations**

Section 5.2.1 Supply of Sewerage Service; New Connections. The concessionaires shall offer to supply sewerage services to all customers in the service area who have existing sewerage connections. ...

Section 5.2.2 Obligation to Make Connections to a public Sewer. This requires the concessionaires to make a connection to a public sewer upon request from customers, and customers shall pay a connection fee.

Section 5.2.3 Wastewater Standards. This requires the concessionaires to comply with all national and local environmental laws and standards relating to treated wastewater in the service area.

Section 5.2.4 Septic and Sanitation Cleaning. This provision requires the concessionaires to offer septic and sanitation cleaning services in the service area and to meet the coverage target percentages of the total population in the designated municipality. Septic and sanitation cleaning services are defined as the emptying of domestic septic tanks and subsequent sludge disposal at regular intervals of five to seven years.

## **THE PRO-POOR WATER PROGRAMS**

In the absence of any compelling provision in the CA to undertake pro-poor service delivery, it took MAYNILAD and MWCI more than a year to draw up their respective pro-poor programs. MAYNILAD introduced the Bayan Tubig in 1999, while MWCI started its Tubig Para Sa Barangay one year earlier in 1998.

### **MWCI's Tubig Para Sa Barangay (TPSB)**

The MWCI introduced the Tubig Para sa Barangay (TPSB) program (or Water for Depressed Communities) in 1998 in response to the clamor for water service connections in poor areas. The TPSB was described by Rivera (December 2001) as “an innovative scheme, introduced to provide legal water connections to poor communities who live in crowded, densely populated areas where it is often difficult to install conventional water pipes.” MWCI waived the land title requirement to enable informal settlers to get an official connection. Rivera was being exact when he said that the TPSB was not part of the original contract but was undertaken after joint discussions between the regulator and the MWCI and in response to a perceived need.

The TPSB offered a menu of 3 different schemes (Dumol, ADB, 2001):

1. Individual metered connection. This is a Level III water connection;
2. Group Taps. One metered connection serves 2 to 5 households (HHs); and
3. Community Taps. An entire community is served with one metered connection.

A Level III connection refers to individual piped connections. This is the service provided to households not classified as informal settlers, and to businesses.

Under the group taps scheme, a group of 3 to 5 households is connected to the main pipe through a mother meter to which they all connect and put up their own sub-meters. Some groups composed of relatives may opt not to install sub-meters to avoid incurring further costs. They may agree among themselves to add other households. Each group of HHs is responsible for paying the connection charge and monthly bills.

For every official (mother meter) connection, a group pays an installation charge of PhP5,850 (as of October 2003) to cover the cost of installation (a fixed amount to cover the cost of pipes within 25 linear meters and an additional amount beyond the 25 linear meters), cost of laying a water mainline extension, value-added tax, meter deposit guarantee, and other incidental charges. The total installation charge is payable in 3 to 6 months to be shared by all HHs connected to a particular mother meter.

The scheme requires the households to organize themselves and to choose a leader/treasurer who is tasked to collect and pay the water bill for the group. The leader pro-rates the cost to each household based on the individual sub-meter readings, where sub-meters are installed. What the group taps scheme comes to is the generation of only one bill, computed on the basis of the total consumption of 3 or 5 households, as the case maybe, as read from the mother meter.

### **MAYNILAD's Bayan Tubig (BT) Program**

MAYNILAD's water policy for depressed areas in its service area offers 3 levels of services:

1. Public Faucet Level I – the request to put up a public faucet is endorsed by the local government unit
2. Public Faucet Level II – the NGO or community association request for a public faucet
3. Level III - Individual Metering Scheme.<sup>2</sup>

The policy was concretized through the Bayan-Tubig (BT) program launched in February 1999 to provide low income communities in the West Zone with potable and cheap water through individual (house) water connections. The BT was MAYNILAD's strategy to expand service coverage, and reduce the incidence of non-revenue water.

The objective of the BT program was to install one meter to every house connection. MAYNILAD charges an installation cost of Php4,800 within a minimum distance of 25 linear meters from a water main, value added tax, and a guarantee deposit payable within 6 to 12 months. A set of criteria is followed in establishing a BT scheme in a community (Rosenthal, 2001):

- The area is reasonably close to the primary network
- Beneficiaries are not located in an area liable to flooding
- The scheme is technically feasible, and
- The site is not on private land where question on tenure poses problems.

To ensure the participation of informal settlers, the land title requirement was waived and people were allowed to pay the installation charge in installment of up to 12 months.

In conceptualizing the BT program, MAYNILAD presumed that if given a choice, people would prefer an individual connection to a public faucet or other communal type water system. Given the difficulty of access to squatter areas due to narrow roads and alleys, MAYNILAD's policy was either to lay the pipe network underground where possible, on or above the ground, or attach to a wall. From there, a battery of meters is installed where each household makes its own above-ground plastic pipe connection. MAYNILAD has assigned to customers the maintenance of pipes beyond the water main.

### **TPSB and BT Compared**

Table 2 compares the features of TPSB and BT of MWCI and MAYNILAD, respectively. An important program component introduced under the program is the waiver of the land title requirement, enabling the informal settlers of Metro Manila to apply for a formal connection even if they do not own the land where they built house on.

However, unlike regular water connections, households benefiting from the program have to pay a connection charge. The cost per connection in the East Zone is higher and is payable within a shorter time period. In the case of the West Zone, the connection charge is nominally less and payment can be extended up to one year. Moreover, MAYNILAD has greater preference for individual, rather than group, connection.

**Table 2: Features of the TPSB of MWCI and BT of MAYNILAD**

	<i>Tubig Para Sa Barangay of MWCI</i>	<i>Bayan Tubig of MAYNILAD</i>
<i>Concept</i>	<ul style="list-style-type: none"> <li>○ To improve service connections in depressed communities by providing properly connected water services, where each service connection with a water meter is <b>shared</b> by a cluster of up to a maximum of 5 families</li> <li>○ Land title requirement is waived</li> </ul>	<ul style="list-style-type: none"> <li>○ To provide low-income communities with potable and cheap water through <b>individual</b> water (house) connection</li> <li>○ Land title requirement is waived.</li> </ul>
<i>Metering scheme</i>	1 meter serves several dwellings for a maximum of 5 families	1 meter per 1 house connection
<i>Service connection/ installation charge (per connection)</i>	<ul style="list-style-type: none"> <li>○ Installation cost (minimum for within 25 lm and at cost for beyond 25 lm)</li> <li>○ Meter deposit</li> <li>○ Laying of water mainline extension</li> <li>○ Value-added tax</li> <li>○ Guarantee deposit</li> <li>○ Other incidental charges</li> </ul> <p>Total charges of 5,850 pesos (as of October 2003) payable in six months maximum to be shared by all families connected to a particular service connection</p>	<ul style="list-style-type: none"> <li>○ Installation cost (minimum for within 25 lm and at cost for beyond 25 lm)</li> <li>○ Value-added tax</li> <li>○ Guarantee deposit</li> </ul> <p>Total charges in the amount of 4,730 pesos (as of October 2003) payable in six to twelve months</p>
<i>Customer classification</i>	Residential or the highest rate classification in case of mixed usage.	Residential or Semi-business in case of mixed usage.
<i>Estimated number of persons per connection</i>	Approximately 17.8 persons per connection (based on 6 persons per HH connection being used by MWCI)	Approximately 9.2 persons per connection.

Source: MWSS-RO.

While it would appear that the BT program of MAYNILAD provides more advantages to its customers, still both the BT and the TPSB suffer from lack of equity. For one, unlike individual household connections, they both require urban poor customers to pay connection charges (households fronting roads are not subject to any connection charges). Second, in the absence of a restructuring of the increasing block tariff (IBT; refer to Annexes B and C), the TPSB

customers sharing a connection tend to pay more than households with individual connections. In both schemes, no special billing computation is applied.

Table 3 illustrates the monthly bill of customers in the East and West Zones using the latest tariff schedules, comparing the bill under a shared connection with the bill under an individual connection. On this basis, households with a shared connection tend to pay more.

**Table 3: Illustrative Computation of Monthly Bill Under a Shared Connection & Under an Individual Connection, MWCI and MAYNILAD based on Tariff Structure (not connected to sewer)**

<b>A. Assumption: Shared Connection</b>	<b>Charges</b>	<b>MWCI (in Pesos)</b>	<b>MAYNILAD (in Pesos)</b>
If connection is shared by 2 HH of 9 persons/HH with combined consumption = 32.cu.m  Pro-rated (MWCI): <u>18 cu.m. = P142.40</u> <u>14 cu m = P110.75</u>  Pro-rated (MAYNILAD) 18 cu.m.= PhP182.24 14 cu.m. = PhP141.74	Basic	P168.95	P191.95
	CERA	32.00	32.00
	FCDA	6.91	68.58
	EC	20.78	29.25
	MSC	1.50	2.0
	VAT	23.01	29.45
	<b>TOTAL</b>	<b>PhP253.15</b>	<b>PhP323.98</b>
<b>B. Assumption: Individual Connection</b>	<b>Charges</b>	<b>MWCI (in Pesos)</b>	<b>MAYNILAD In Pesos)</b>
1. If split into 2 house connections; HH A (5 persons) has consumption of <u>18 cu m</u>	Basic	66.85	75.79
	CERA	18.00	18.00
	FCDA	2.73	27.08
	EC	8.76	12.09
	MSC	1.50	1.50
	VAT	9.78	13.45
	<b>TOTAL</b>	<b>PhP107.63</b>	<b>PhP147.91</b>
2. If split into 2 house connections; HH B (4 persons) has consumption of <u>14 cu m</u>	Basic	50.33	57.07
	CERA	14.00	14.00
	FCDA	2.06	20.39
	EC	6.64	9.15
	MSC	1.50	1.50
	VAT	7.45	10.21
	<b>TOTAL</b>	<b>PhP81.98</b>	<b>PhP112.32</b>

Source: Computation based on tariff structures of MWCI (dated October 2003), and MAYNILAD (dated January 1, 2002). Refer to Annexes B and C for the Water Tariff Structure of the East and West Zones.

Be that as it may, the actual expansion of water service coverage and the increase in new connections are laudable achievements of the concessionaires. Accounts of improvement in the quality of life of urban poor households as a result of new water connections were documented in a number of studies emphasizing the improvement in the quality of life of beneficiary households and the significant reduction in their water bills.

On the side of the concessionaires, particularly MWCI, the use of the group taps scheme greatly increased their service coverage. Through shared connections, the MWCI was able to cover more population with lesser number of connections, and was able to generate higher billed volume. (This is discussed further on p. 12 and presented in Tables 7 and 8).

An example of TPSB project was the PhP120 million Manggahan Floodway Water Supply Project in Pasig City. Inaugurated in September 2001, the project, aid to be the biggest TPSB, was intended to supply 15 million liters of water per day to the area for the benefit of more than 200,000 informal settlers of Manggahan occupying the eight-kilometer west bank of the Manggahan Floodway along the Pasig River. (see picture). Prior to the project, residents buy water at exorbitant rates from a few sellers who source water from deep wells.

*A TPSB water project was installed for the more than 200,000 informal settlers of Manggahan occupying the eight-kilometer west bank of the Manggahan Floodway along the Pasig River.*



In the West Zone, major beneficiaries of MAYNILAD's BT program were the residents of F. Carlos Street in Barangay Apolonio Samson/Baesa in Quezon City. Prior to the project, six MAYNILAD public faucets covered 40% of potable water needs of the 1,200 households living in shanties and temporary housing. Each household would get one hour of water from the public faucet through a hose every other day, costing them PhP15/hour or a minimum of PhP225 per month per household. Residents buy the other 60% of water needs from vendors who have illegal connections at the cost of PhP25 to PhP30 per drum. When the public faucets are dry, residents draw water manually from shallow wells (MAYNILAD News Release).<sup>3</sup>

## **ANALYSIS OF THE WATER SERVICES DELIVERY MECHANISMS**

### **Water Services Delivery Mechanisms**

Water services delivery mechanisms took many variants since the privatization of the MWSS in 1997, allowing the private sector and community organizations to participate in water distribution. Thus, water was provided through: (1) direct, individual water connections, (2) public faucets, (3) vendors who have individual MWSS connection, (4) group taps with shared mother meters, and (5) bulk buying of water – private sub-contractors, and community associations (David, April 2000:27; Inocencio, September 2001; Mitlin, August 2002:15).

#### ***Individual Household Water Connections (Level III)***

Among the ways of providing a water service connection to households, Level III is most desirable, cheapest, and most convenient to consumers. Both concessionaires pursued the installation of individual water connections, but with MAYNILAD being more explicit in its policy of using the Level III scheme under the BT program.

As of July 5, 2003, MAYNILAD had installed at least 71,323 individual household connections under the BT program. Beneficiaries have increased their monthly water consumption to an average of 27 cubic meters, unlike before when they had to buy water from vendors or from public faucets and consume only 6 to 7.5 cubic meters per month (MWSS-RO). On the whole, the individual connection scheme of the BT program provided residents the most desired arrangement for accessing potable drinking water. Likewise, the BT program was noted to have

fostered improved community sanitation, legalized illegal water connections, and reduced health risks. Table 4 shows the number of total connections in the West Zone by business area.

**Table 4: Total HH Connections under the Bayan-Tubig Program, MAYNILAD.  
As of July 5, 2003**

Business Area	Total HH Connections
1. Central (Manila except San Andres and Sta. Ana)	26,035
2. Northeast (Roosevelt and Novaliches districts, Quezon City)	29,987
3. Northwest (Malabon, Navotas, Valenzuela and upper and lower portions of Caloocan)	9,657
4. South (Pasay, parts of Makati, Paranaque, Las Pinas, Cavite City, and the towns of Rosario, Imus, Noveleta, Bacoar and Kawit in Cavite)	5,644
Total	71,323

Source: MWSS-RO.

**Table 5: Completed and Future TPSB Projects, MWCI (\* As of August 2003.  
\*\* As of June 2003)**

Business Area	Number of Official Connections*	No. of Households**	Number of Future Projects**	No. of Households**
Balara	7,249	19,976	14	1,791
Cubao	2,593	5,645	11	813
Marikina	5,334	6,151	9	70
Pasig	4,078	16,654	11	4,937
San Juan/Mandaluyong	3,336	9,672	9	26
Makati	2,301	3,710	3	615
Rizal-Taguig/Pateros	4,852	19,730	47	20,120
TOTAL	29,743	81,538	104	28,372

Source: MWCI.

As of June 2003, MWCI has completed 309 TPSB projects. It plans to carry out 104 additional projects in the future (although the period of implementation is not indicated in their report). (Please refer to Table 5).

### ***Group Taps***

MWCI used the group taps scheme in the TPSB program more widely than Level III or individual connections. Through the group taps scheme, MWCI expanded service coverage

through local water resellers to operate piped water networks within the service area. The scheme entailed the involvement of household associations, community groups, and local sub-contractors specializing in water distribution, who buy large quantities of network water, and sell to households in low-income neighborhoods via sub-networks. Operators of water tanks and handcarts were allowed to continue servicing off-network markets (Dumol, 2001).

The group taps as a mechanism offered the MWCI a lot of advantages. Firstly, it enabled the MWCI to rapidly expand water service coverage from fewer official connections and meet obligation targets as well as consumer's growing water demand. Thus from 1998 to December 2000, MWCI had installed 6,577 TPSB (official) connections. By the 3<sup>rd</sup> quarter of 2002, official connections had risen to 20,788, or an equivalent of 61,744 household connections. As of June 2003, MWCI had covered a total of 81,538 households. Secondly, the cost of connection and network laying is passed on to consumers directly or through the water sub-contractors.

Given the speed in which more population are being covered under the TPSB, the scheme suffers from lack of equity. Firstly, the combined water consumption of households brings them to the highest tariff level for "Residential" customers, resulting in a higher water bill per household. Secondly, households located more than 25 lineal meters away from a water main shoulder the cost of pipes from their house to the mother meter. Of course, given the advantages and disadvantages, households would prefer water from group taps rather than buy water from public faucets, for which they have to physically carry water from faucet to their houses, or buy vended water, which is much more expensive.

Overall, the group taps approach fast-tracked the achievement of the MWCI's coverage target. The use of such schemes stems from the CA provision allowing the concessionaires to use innovative approaches and third party provision by contracts to meet their service coverage targets.

### ***Public Faucets***

The old MWSS operated public faucets in squatter areas prior to privatization. In 1997, there were 130 public faucets. The maintenance of public faucets, however, was problematic, with the

failure of communities to pay water bills on time. This reason as well as the strong preference for a Level III connection led to the conversion of public faucets into individual connections or to decommission them (Rosenthal, 28 August 2003).

Despite the difficulty in maintaining public faucets, the two concessionaires continued the public faucet tradition. As of March 2003, MAYNILAD maintains a total of 402 public faucets; MWCI has 533. Installed without extra charges to the community, every public faucet covers 475 people or up to 50 households. Both MWCI and MAYNILAD required the community to have the public faucet managed by a person in the community as determined by the community association or barangays officials. This is to ensure the timely payment of bills.

For a community with no piped water, a public faucet is of course a better arrangement. Be that as it may, water from public faucets is more expensive than individually piped water. Having a person manage the public faucet entails additional costs to households. In reality, the “public faucet manager” charges an extra fee for his/her services, i.e., ensure that queuing is followed, collect the payment per container, and remit (or not remit) the collection to the barangay or to the MWCI or MAYNILAD, as the case may be. Moreover, households incur added costs when they have to pay somebody to fetch water. Further, households and concessionaire alike face the risk of non-remittance of water collection payments. The experience of Barangay Parola in the West Zone shows that public faucets tend to be mismanaged. The “public faucet manager” may have efficiently manned the sub-connections to the public faucet, collected payments from residents, and remitted collections to the Barangay Chairman, but the latter did not pay the billed water consumption to MAYNILAD. Unpaid water bills had run up to P2.4 million (or \$48,100). The public faucet was disconnected in late 2000 (Inocencio, June 2001). Also, water availability can truly be intermittent. Public faucets are the first ones to run dry in case of water scarcity. On a positive note, water from public faucet is less expensive than vended water (Inocencio and David, 2001).

### ***Vended Water***

Vended water is a mainstay in the way water is delivered in the MWSS service area. Water is bought from households with official connections or from public faucets. In both cases,

households usually pay other people to fetch water for them. Water is carried physically in gallons or cans using a wooden pole, pushcart, tricycle or jeepney (Inocencio, September 2001). Generally, households have to keep water drums to have a ready supply for 2 or 3 days. While vended water is more costly, it remains an important source of potable water for poor households. It is less costly than bottled water.

### ***Bulk Water Supply***

Bulk selling of water is a major strategy used by MWCI to drastically expand water coverage. Under the group taps scheme, MWCI actually sells bulk water to a water sub-contractor, household associations, or water cooperatives. In turn, the sub-contractor directly distributes water to households. MWCI supplies bulk water at the edge or entrance of an informal settlement. There are two types of bulk water supply that MWCI provides: (a) community-managed water connection, and (b) privately-managed water distribution.

#### *Community-managed Water Connection*

In the first category, “a whole community forms an organization to deal directly with the concessionaire, pays its bulk water bill, and sets up its own mini-distribution system, billing and collection. This is the same strategy under the group taps scheme, where the combined water consumption is billed as a single account under one mother meter for the entire community. Sub-meters are usually installed to determine pro-rated individual household consumption. Like in group taps, the community is in charge of meter reading, billing and collection from member-households. According to Inocencio (September 2001), this is cheaper than vended water but more expensive than water from group taps. There is also the added cost to pay for meter reading, billing, collection, and overseer services.

An example of a community water connection is the Samahang Patubig ng Durian, a water supply project for Durian Street, Barangay Pasong Tamo, Quezon City. The Samahan has 228 member households. The Samahan is not charged the special rates for bulk water, but is charged according to actual consumption multiplied by the applicable tariff rates for a residential connections. The members of the Durian community agree that the water access situation is much better than before. However, they pay more than twice a household consuming the same

amount but with an individual connection. Added costs to the Durian community members are the honoraria of the meter reader, the area coordinator and treasurer totaling PhP3,000 per month (Inocencio and David, 2001:17).

#### *Privately-managed water distribution*

A well-known example of water sale by a private sub-contractor is that by Inpart Engineering, a steel fabricating company that branched out to the construction of and operation of local water systems (Philippine Center for Water and Sanitation, 2001, cited in Rosenthal, 2003).

Inpart is a local contractor supplying water to a particular area. Inpart entered into a Memorandum of Agreement (MOA) with the local government, community residents and MWCI for it to operate a water system on a build-operate-transfer arrangement for more than 24,050 households in six low-income communities in the eastern part of Metro Manila. Inpart invested in a water distribution system, buys bulk water from MWCI, and charges consumers a single fixed rate of PhP1.50 per 20-liter container or PhP75 per cubic meter. About 40% of the revenue of Inpart goes to the income of water tenders and to a community fund. Part of the remaining 60% is paid to a meter reader and electric bill, and the difference serves as the return on investment. While Inpart cannot increase rates without prior consultation with representatives of households, there is no government agency that supervises its operation. The municipal health department monitors water quality (Philippine Center for Water and Sanitation, 2001).

MWCI classifies water sold to costumers under a privately-managed water distribution as bulk water and charges them the highest rate for residential customers. The advantage to MWCI is that with one mother meter (one official) connection, it is able to cover many households. Management of sub-meters and sub-connections is the task of the sub-contractor. On the other hand, customers are disadvantaged by having to pay more than the cost of water from individual connections.

Another example is the TPSB project in Addition Hills in Mandaluyong City. MWCI permitted a private contractor to invest in and operate a water distribution system with bulk water from MWCI. The contractor entered into a contract with MWCI and a MOA with the barangays to be

allowed to retail water to households at PhP1.50 per 20-liter container or roughly PhP75 per cubic meter. The contractor, with 60 paid water tenders, operates a number of taps with long hoses to supply water. The water tenders get PhP0.50 per container, while the barangays get 10% of the gross water revenues (Inocencio and David, 2001).

In both examples, there is probability that water quality may be undermined since nobody regulates the private resellers (Inocencio, September 2001).

### ***Impact on Water Service Coverage***

Water service coverage is a basic indicator of performance monitored by the RO. Information on service coverage is also used to derive other indicators such as the percentage of the population with piped water supply. Under the CA, service targets are set from the year 2001 to 2021 on five-year increments and are expressed as percentages of the total projected service population (except those connected to a piped source of water other than the MWSS) for the particular year<sup>4</sup>. (Refer to Table 6 for the water supply coverage targets for both the East and West Zone.)

**Table 6: Water Supply Coverage Targets, East and West Zones, in percentage**

TARGETS by Zone and Year	2001	2002	2003	2004	2005	2006	2011	2016	2021
East	77.1	80.5	83.9	87.3	90.9	94.1	94.1	94.1	94.6
West	87.4	89.34	91.28	92.62	93.96	97.1	97.4	97.7	98.4
ACTUAL									
East	76	82	--	--	--	--	--	--	--
West	79	78	--	--	--	--	--	--	--

Source: Concession Agreement; MWSS-RO.

Comparing the target and actual water supply coverage by city/municipality reveals that 100 percent coverage had been achieved in 8 out of 37 localities within the service area. Otherwise, 9 municipalities had not been reached. Imus was only 7% covered; Muntinlupa, 8% coverage; Antipolo, 17%; Taguig, 20%; and Las Piñas, 29%. Caloocan City, Valenzuela City, and Navotas Municipality were at least 68% covered (Cuaresma, 2003). Referring to Table 6, MAYNILAD was below its water service coverage target in 2001 and 2002 by as much as 11%. On the other hand, MWCI exceeded its target by 1.5%.

Interestingly, it was found out that the two concessionaires employed two related concepts to represent the existing number of water service connections. MWCI uses the terms “regular connections” and “equivalent household connections,” while MAYNILAD uses “official connections” and “total connections” to mean the same thing. The terms are defined as follows:

- ❑ Regular/official connections – include billed services including metered regular connections, bulk-metered connections (excluding connections downstream of the bulk water and connections under special billing, e.g., raw water, water district, se transport).
- ❑ Equivalent household connections or total connections – include official connections plus connections downstream of bulk-metered connections.

**Table 7: MAYNILAD Water Service Coverage, 1997-2002**

Year	Official Connections	Total Connections	Total service population based on Concessionaire Business Plan	Percentage of coverage using official connections	Percentage of coverage using total connections
1997	449,234	467,205	7,263,606	65.41 %	68.02 %
1998	449,144	468,645	7,356,124	64.45 %	67.25 %
1999	498,051	518,399	7,452,470	70.41 %	73.29 %
2000	547,880	571,281	7,553,627	76.27 %	79.53 %
2001	577,637	602,424	7,640,714	79.37 %	82.77 %
2002	573,194	598,316	7,736,026	77.65 %	81.05 %

Source: MWSS-RO.

**Table 8: MWCI Water Service Coverage, 1997-2002**

Year	Official Connections	Total Connections	Total service population based on Concessionaire Business Plan	Percentage of Coverage using official connections	Percentage of coverage using total connections
1997	310,682	325,527	4,543,886	80.48 %	84.32 %
1998	323,533	340,037	4,722,645	79.81 %	83.88 %
1999	332,582	390,349	4,901,396	78.31 %	91.92 %
2000	339,491	408,894	5,080,150	76.46 %	92.09 %
2001	352,982	427,755	5,258,906	76.17 %	92.30 %
2002	369,699	470,522	5,139,030	82.02 %	100 %

Source: MWSS-RO.

Referring to Tables 7 and 8, the difference between the “official connections” and the “total connections” of MAYNILAD is narrower at 25,122, compared to 100,823 difference for MWCI. This confirms earlier findings that MAYNILAD relied more on individual connections, while MWCI had more of the group taps and use of subcontractors and homeowners association to expand service delivery.

The distinction between official connections, equivalent household connections and the average household size multiplier used is also important in determining the actual number of service connections, and whether the concessionaires have actually complied with their water service coverage target. The concessionaires insist the sub-metered connections should be included even though residents have to shoulder the cost of their individual connections.

The concessionaires used a multiplier of 9.2 households per person. Thus, MAYNILAD reported that it was serving 1.7 million people in Manila as of the end of 2001 based on 184,782 connections (or an average 9.2 persons per household). Using figures from the Bureau of Census, the total service population would only amount to 1.4 million potential beneficiaries in MAYNILAD’s section of the city (or an average of 7.6 persons per household). Similarly, MWCI has estimated its total customers in Makati City to number more than 450,000, based on 47,178 connections (or an average of 9.5 persons per household). MWSS argued that the figure should only be 250,000 potential customers using Census data. Overall, there is bloating in the reported covered population. If official Census data are followed, MAYNILAD’s coverage at the end of 2001 would fall to 76%, while MWCI’s coverage rate would drop to 65%.

### ***Implications on Water Regulation***

The success of the policies of privatization and regulation can only be measured by the extent that these have improved the quality of life of Filipinos (A Snapshot of Philippine Governance, June 2000:1). In the case of MWSS, its privatization acquires meaning only when the problems of inefficiency, limited access to water by customers, intermittent water supply, etc., i.e., are being addressed or have been achieved.

The preceding sections discussed and analyzed the pro-poor programs introduced by MWCI and MAYNILAD to meet their service obligations. The CA imposed no clear and specific service obligations on the concessionaires to meet the service demand of poor residents in the service area. As observed, the two concessionaires came up with their own pro-poor water service delivery programs. In comparing the service obligations of the concessionaires with their performance, the following observations are made.

**1) On a positive note, the pro-poor programs have benefited the poor. Access to water significantly expanded.**

Through the pro-poor programs, access to water services by the poor and informal settlers living within the MWSS service area expanded significantly. The manner by which the poor get potable water was improved from buying water from vendors to either buying from public faucets, or getting a shared connection, and at best having their own individual connection.

Some important aspects of the new water delivery schemes must be emphasized. First, private sector participation in water services delivery has generated positive consequences. The installation of individual connections, group taps, community-shared taps, privately-managed water distribution system proved effective in enhancing and hastening access by the urban poor to piped drinking water.

Second, the people became more aware and vigilant. The participation of the people increased, and so is their responsibility for ensuring the integrity of their own water connections (they ensure that there are no illegal connections). The level of responsibility of households increased depending on the kind of water connection they have. In the shared connection or group taps scheme, one lesson learned is that people/consumers can be made accountable. The households became partly responsible for the management of their pipes, raising the security of the system from illegal connections and pilferage. Households with shared connections have to be vigilant in guarding their pipes from illegal tapping and leakages. Otherwise, they have to foot a higher bill. In group taps, each household has to religiously pay on time, police the others so they also pay on time, and see to it that the appointed overseer remits the payment to the concessionaire. Failure to pay means the mother meter will be disconnected and all of them will have no water.

The same is true of public faucets, community associations, and private sub-contractor arrangements.

Third, the urban poor proved willing to shoulder connection charges for as long as they get formally connected to piped water. Both concessionaires collect connection charges to enable the poor to connect to a piped system. Indeed, as it turned out, the poor are willing to pay extra. Their main concern was to have access to piped water; the cost of access and the resulting mechanism through which water will be provided are secondary. This proved to be the case in poor barangays and puroks that benefited from TPSB and BT projects.

In both urban poor water projects, there is ample evidence to show that the members of the blighted communities have significantly benefited. Access to water of blighted communities within the service areas has definitely resulted in improved living conditions, more time for work to earn income, less payment and increased water consumption and other tales of benefits from an improved water system. The removal of the land title requirement is highly laudable.

- 2) However, the pro-poor water service delivery programs employed are less equitable since they relied more on group taps, subcontractors, homeowners associations, community organizations, and public faucets to deliver water to poor areas.**

#### **i. Higher Water Tariffs**

Distribution of water through homeowners association and small sub-contractors resulted in water tariffs four times higher than the concessionaire regulated tariff rates. Further, such private water suppliers are not regulated by the MWSS-RO in their pricing and service performance.

The increasing block tariff fails to ensure that low-income consumers pay less per cubic meter since the schemes used in poor areas, i.e., group taps, subcontractors, bulk water, etc., effectively results in a reclassification of households from “Residential” to “Semi-Business” customer, which are charged highest rates. Of the low-income households, only 20-25% have individual water connections. Majority is connected through group taps, or buy vended water from bulk

buyers of water, or public faucets. In addition, some poor households consume only an average of 3 to 5 cubic meters per month, but have to pay the rate applicable to the initial minimum block of 10 cubic meters per month (Rosenthal, 2001).

A classification of customers is done in the presentation of the water tariff schedule, wherein customers are classified into Residential, Semi-Business, Business Group I and Business Group II. Differentiating customers by level of consumption would appear to give socio-economic consideration to low-income consumers assuming that the latter consume less water than high-income consumers.

Unfortunately, as Table 9 shows, the resulting list does not follow any equitable logic. For instance, “sari-sari” (convenience) stores are listed under the category “Semi-Residential” as against households with swimming pools, listed under the category “Residential.”

**Table 9: Classification of MWSS Customers and Classification of Water Sold**

CLASSIFICATION OF CUSTOMERS	
Residential	Domestic / sanitary use
Semi-Residential	Sari-sari (convenience) stores, food stall, vulcanizing shops, small bodega except bonded warehouse, seasonal business, etc.
Business Group I	Bakery, car assembly, construction activities, cottage industry, ice plants, glass / handicraft / knitting / plastic factories, printing press, soft drinks manufacturing
Business Group II	Combination of industrial, commercial and/or residential activity
CLASSIFICATION OF WATER SOLD	
Raw Water	Water which did not undergo any purification or treatment
Sea Transport	Water directly sold to ships or to any sea transport
Bulk Water	Water sold in bulk at some withdrawal point

Source: MWSS-RO

The classification of customers into four categories in Table 9 above is further subject to the kind of water connection that a customer has, e.g., individual connection, shared connection or buying of bulk water. For example, a group of five households sharing a connection would be classified as “Semi-Residential” for billing purposes if one household in the cluster has a sari-sari store. Another example is where a sub-contractor buys bulk water from the concessionaire and resells

to a community, and is therefore classified under ‘Business Group I’ and billed as such. The effect is that individual households pay more than if they had an individual connection.

The point being emphasized is that the classification of customers and its component increasing block tariff (IBT) structure is inherently weak in equity considerations. The IBT does not really promote equity among customers. The rich households tend to be better subsidized since they usually have individual connections and fall under the “Residential” category, while the poor tend to share a connection or get water from bulk selling such that they tend to be classified under the “Semi-Residential” or “Business Group I” category and, thus, pay more.

## **ii. Households shoulder the cost of connection.**

The rule on connection charges for connection or reconnections to a water main or a public sewer is governed by Section 9.5 of the CA. Section 9.5(i) prescribes a fee not to exceed 3,000 pesos for connections or reconnections by residential customers to a water main or a public sewer that are both located less than 25 meters from the connection point. The connection fee is adjusted annually by the percentage change in the Consumer Price Index. Beyond 25 meters, customers pay an additional connection charge equal to the costs reasonably and efficiently incurred by the concessionaire including the costs of upgrading or restoring existing connections or metering facilities to acceptable technical standards.

The group taps approach tends to be more costly and less equitable than individual connections. This is primarily due to the fact that group taps put households at the higher end of the block tariffs, thus making them pay more than those with individual household connections. Further, households sharing a connection or buying water from public faucets need to shell out extra amount of money to cover the cost of services of a treasurer/coordinator/inspector for the management of the taps.

As of October 2003, the MWCI charges 5,850.89 pesos per connection within 25 lineal meters from a water main, while MAYNILAD charges 4,730.89 pesos for the same connection. The components of the connection charge are shown in Table 10. The connection charge of MWCI is higher than that of MAYNILAD because of the meter deposit and metering charge in the amount

of 1,020 pesos. Back in 1997, the MWCI was charging 750 pesos for meter deposit. The fact that the cost of the meter itself is already part of the installation cost further makes the meter deposit as well as the metering charge an overcharge.

**Table 10: Water Service Connections Within 25 Lineal Meters, As of October 2003**

Connection Charges	MWCI	MAYNILAD
1. Installation Cost*	P4,118.99	P4,118.99
2. VAT (10% of 1)	411.90	411.90
3. Guarantee Deposit	300.00	300.00
4. Meter deposit and Metering Charge	1,020.00	none
<b>TOTAL</b>	<b>P5,850.89</b>	<b>P4,730.89</b>

\* The installation cost in 1999 = P3,473.15; 2000 = P3,718.58 (Consumer Price Index or CPI = 6.6%); 2001 = P3,889.63 (CPI = 4.6%); and 2002 = P4,118.99 (CPI = 6.0%).

In terms of the period of payment of connection charges, the MWCI allows only a maximum period of 6 months compared to 12 months in the case of MAYNILAD. This is contrary to the CA, which provides that payment of connection charges can be extended to a period of five years. (See related discussion on the pro-poor water projects for more details.)

Overall, it is not very obvious that it costs the poor and low-income consumers more to get a water connection than high-income households. High-income households usually have their houses located beside a road such that they do not pay any connection charge unlike the poor and informal settlers whose houses are mostly located at some distance from a main road.

### **iii. The concessionaires benefited more**

The group taps, and the use of sub-contractors and community associations benefited the concessionaires more than the consumers. The concessionaires' strategy was to extend a water main into a (often poor) subdivision, but leave it to a community association, homeowners association, or sub-contractor to install the pipes connecting the households. The concessionaires benefited more from the group taps, and sub-contractor arrangement since they do not have to spend to install and maintain water pipes beyond the water mains. The homeowners association and subcontractors shoulder the cost of water pipes connecting the individual households to the water main.

In terms of reporting, the concessionaires count each household to determine service coverage and number of connections. In billing, they issue one where there is a sub-contractor or association, resulting in the households paying three times more than if they are billed individually.

## **CONCLUSION**

The governance framework brings the government, private sector and civil society together to respond to the challenges of development. In the case of water and sewerage services delivery in the MWSS service area, the national government as well as the MWSS provided a very conducive political, legal and business framework to make privatization and private sector participation work.<sup>5</sup>

However, self-regulation, or for that matter self-governance, does not seem to work even within a framework of good governance. Therefore, the government, whose roles were identified to be as enabler, facilitator, and partnership builder, must continue to regulate. The market cannot be totally left to itself. Civil society may do its own regulation of the performance of the regulator and the regulated companies. Otherwise, regulation must be undertaken by an independent and trusted institution of the government. This is strongly called for in private sector participation in water distribution given the monopolistic nature of water provision, and the tendency of the private sector to put its profit-maximizing motive first without due regard to the welfare of people.

The regulation of the privately owned water concessionaires has so far generated very modest gains as well as disadvantages to the poor. Population served increased by an additional 1.5 million people within the first five years of MWSS privatization. Water coverage improved by 12%, but water coverage remains very low in areas such as Muntinlupa (8% water coverage); Taguig (20%), Rodriguez/Montalban (34%), Cainta (31%), Taytay (31%), Antipolo (17%), San Mateo (41%), and Navotas (68%), among others. Water availability increased to 21 hours a day. The private concessionaires have not fully performed as expected. They have failed to achieve their service targets. The numerical increase in the number of connections including that for the

urban poor was, unfortunately, accompanied by significant increases in water tariffs, below minimum capital investments, and costly arbitration procedures.

Much remains to be desired in terms of expanding water and sewer services coverage, raising the number of hours of water availability to 24 hours, and keeping water tariffs affordable. The average number of hours that water is available improved from 17 to 21 hours, but can be further improved to the desired level of 24 hours. In addition, the concessionaires have to drastically reduce non-revenue water (NRW), which still runs to about 69% in the West Zone and 53% in the East Zone as of 2002, or about the same level as it was before privatization.

What lessons can be learned from the regulation of water in the MWSS service area? (see also Nickson and Vargas, 2002)

**First**, commitment to water tariff increases must be accompanied by concrete commitments to improve service targets for the poor and disadvantaged sectors. A detailed statement of service targets must be required from concessionaires in relation to petitions for tariff increases.

The regulatory structure has to achieve an acceptable balance between promoting the interests of the private concessionaires and those of the people they serve. Water tariffs have in fact been allowed to increase by more than 500% since privatization, without requiring the concessionaires to set concrete service targets to poor areas. The absence of clear cut commitments to service the poor sectors compared to the numerous provisions on raising water tariffs only goes to show that improving services to the poor is not primordial in regulatory decisions.

The CA and its amendments contain no clear commitments that would directly promote the welfare of poor and low-income constituents living in the MWSS service area. We can only allude to the mandate on the provision of public faucets, and a provision in Amendment No. 1,<sup>6</sup> where concessionaires were required to study means to improve cross-subsidy in favor of poor households, and to accelerate the delivery and provision of water services to poorest barangays. This provision is still to be operationalized.

**Second**, a desirable balance between promoting concessionaire interests vis-à-vis that of consumers must be balanced. Private sector participation in the delivery of water services within the MWSS service area hastened the delivery of water services and revolutionized the way in which water is delivered, although not all schemes are totally advantageous to customers. To the credit of the concessionaires, the TPSB and BT pro-poor water programs have resulted in a total of 81,538 new household connections in the East Zone as of June 2003, and 71,323 new household connections in the West Zone as of July 2003 in blighted and poor communities. Informal settlers or squatters were able to apply and get either an individual or group water connection, since the land title requirement for a water connection had been waived.

While water from public faucets is better than having no water at all, still water from this source tends to be more expensive than water from individual water connections. In instances when water had to be rationed, the public faucets are the first ones to run dry or experience reduced supply.

Under the TPSB program, majority of customers in the East Zone got water connections through the group taps scheme. A group connection usually has four members. Where one of the members in a group has a store, dress shop or other similar business, the group is classified as “Semi-Business” and charged the corresponding tariffs, thus penalizing the other members who utilize water purely for “Residential” purposes. Households in subdivisions buy water through the subdivision homeowners association or from a private water service provider buying bulk water. Bulk water is imposed the highest water tariff and the subdivision is classified as “Semi-Business” or “Business Group I” or commercial customer.

In relation to water tariffs, the block tariff structure per se is not a problem, although it has its own defects. It is the actual classification of customers and the classification of water consumed by them. Households using water for purely residential purposes tend to be charged higher tariffs in cases where they share a group tap, buy water from the community or subdivision association or from a private service provider, or from public faucets. In effect, these pay up to four times more than households with a single connection.

The group taps scheme under the TPSB program turns out to be more expensive than an individual connection. Households have to shell out an extra amount of PhP6,000 (as of October 2003) to cover the cost of pipes and water meter to connect to the water main, and other installation costs. The implementation of the TPSB and BT pro-poor programs can be improved by lengthening the payment period to five years, as the CA provides.

**Third**, there is a need to regulate sub-contracted water, and to ensure the accountability of private contractors. The regulatory structure should ensure that the service providers are made accountable for their actions by involving the public in auditing the companies' performance through information dissemination. As it is, the sub-contractors are not regulated. The accountability of private contractors is not covered by any provision of the CA.

**Fourth**, the regulatory structure could enjoin the concessionaires to have a plan of converting group taps, sub-contracted water, public faucets, etc. into individual connections. This would solve the problem of having to regulate smaller unit supplying water, and technically reduce the bill of consumers. Prior to conversion of all communal means of water service delivery, there is a need to develop criteria for the regulation of sub-contractors of water. The bottom line here is to monitor the operations of local sub-contractors and community water associations whether by the MWSS-RO or by the local governments or both to ensure accountability in water pricing and quality.

**Fifth**, the regulatory structure should require the concessionaires to make detailed reporting of the accomplishments of the pro-poor programs, including the agreements entered into with private sub-contractors, and community associations. It should also do its own monitoring of the performance of sub-contractors/community associations, especially where residents have in particular clamored for the MWCI or the MAYNILAD to take over water distribution.

Thus, for instance, the monthly report of accomplishments should provide the following information:

1. Customer data by type of connection – customers may be classified into Residential; Semi-business; Business I, and Business II to conform to the customer classification in the Schedule of Water Tariffs, and TPSB and BT customers. Type of connection may be classified into individual connection, group taps, public faucets, subcontractor, community organization, homeowners association, as the case may be.
2. TPSB and BT targets and accomplishments
3. The following data are already being covered:
  - 3.1. Current water rates
  - 3.2. Billing and collection data - collection efficiency, billed volume of water
  - 3.3. Financial data - revenues, expenses
  - 3.4. Water production data - production measurement and; production cost (power costs, treatment cost, pumping efficiency);
  - 3.5. Non-revenue water (NRW)
  - 3.6. Administrative data - number of staff per 1,000 customers; board meetings
  - 3.7. Technical data – bacteriological tests (physical/chemical tests required annually); chlorination
  - 3.8. Status of capital outlays projects by amount of investment, location, capacity
4. The report should also contain targets versus actual figures on
  - 4.1. Coverage targets
  - 4.2. Adequacy of pressure
  - 4.3. Round the clock supply

In relation to this, it is suggested that the RO maintains a database of small water service providers and sub-contractors of MWCI and MAYNILAD, and draw out the rules and regulations that they are subject to. The rules and regulations should be published so the people may know and participate in the monitoring of performance. The RO could further improve its accessibility to the customers of MWSS by creating a web-based system of reporting complaints.

**Sixth**, the RO should promote transparency and accountability to customers. Mechanisms could be put in place through which the customers of MAYNILAD and MWCI can participate in performance audit of the companies. To ensure accountability, the RO could render a public reporting of performance, organize water consumer forums, and publicize dispute resolution processes. The RO could tap community or people's organizations or NGOs task with a clear mandate of monitoring water distribution and related problems in assigned areas.<sup>7</sup>

The RO may, through the media, educate the water consumers of the tariff setting process and provide mechanisms for consumer/client participation to raise the level of accountability of service providers and help the RO implement the provisions of the CA. The RO may consider coming up with a systematic program of raising public awareness on how to make water service providers more accountable. For instance, people should be taught what aspect of performance to monitor and how to monitor this, how and whom to report (see Gotelli, 2004).

Popular versions of the CA and its amendments may be printed for dissemination to the public, particularly the provisions on the monitoring of performance of concessionaires. This adds to transparency and can generate support and build consensus from and among stakeholders, customers and concessionaires included, and facilitate the enforcement of the CA as amended.

## **SUMMARY**

In the absence of clear provisions in the Concession Agreement on providing services to the poor, on one hand, and how private water sub-contractors may participate in water services delivery, both Concessionaires develop their respective pro-poor water services delivery programs. The programs are commendable, having connected more than 152,000 households as of mid-2003 to the piped network. A closer look at the programs, however, would show elements of inequity in the programs employed. The regulatory structure should take appropriate action to maintain a desirable balance between promoting the interests of concessionaires vis-à-vis that of consumers, especially the poor. The tariff structure, the cost of connection, and the actual manner by which water is delivered, among others, should be reexamined towards equity considerations.

The return to the MWSS in March 2004 of the West Zone concession offers an opportune time to reflect on the experience of water privatization and regulation. The West Zone experience is an indisputable proof of failure of privatization and regulation. The government takeover (pundits call it a “bail out”) of the MAYNILAD concession area does not change the fact of the payment of the foreign debt by MWSS and for MAYNILAD to fulfill its commitments. The experience should compel the government to revisit its policy of regulation of water services delivery by the private sector, and the privatization of basic sectors.

## Endnotes

- <sup>1</sup> This paper is based on the paper, “Water in Private Hands: Impact on Governance and the Urban Poor,” presented during the International Conference on Challenges to Development: Innovation and Change in Regulation and Competition, 14 October 2003, EDSA Shangrila Hotel, Mandaluyong City, Metro Manila, Philippines. The current focus is on the pro-poor water services adopted by the private concessionaires in the MWSS service area.
- <sup>2</sup> Level I water supply service are directly from existing shallow wells, deep wells or springs. Level II water supply service is characterized by communal faucet system where houses are densely clustered enough to justify a piped distribution system. Level III water supply service, which provides individual faucet system.
- <sup>3</sup> It may be noted that MAYNILAD continued implementing BT projects in 2003 despite an early termination notice it filed with the MWSS indicating its intention to return the West Zone concession to the government.
- <sup>4</sup> Service coverage is determined by dividing the total population less the number obtaining water from an alternative legal source by the total number of individuals served by the concessionaire.
- <sup>5</sup> Five months prior to the August 1997 privatization, Resident Fidel V. Ramos raised water tariffs to PhP8.78 per cubic meter (or by 38%) to favor/enable bidding companies to bid low and ensure the success of the bidding process. Then, in less than 5 years into the concession, the MWSS had the CA amended mainly to introduce other ways to adjust water tariffs and enable the concessionaires to recover foreign exchange losses brought about by the peso devaluation after the 1997 Asian Financial Crisis. The Amendment No. 1 to the CA dated 5 October 2001, introduced three water tariff adjustment mechanisms, each with specific provisions applicable for each of the concessionaires: (1) Accelerated Extraordinary Price Adjustment (AEPA); (2) Special Transitory Mechanism (STM); and (3) Foreign Currency Differential Adjustments (FCDA).  
The FCDA is a quarterly rate adjustment to be made depending on the concessionaire declared FOREX losses. In July 2002, the FCDA was computed at 35.73% of basic water charges for MAYNILAD customers and 49.593 percent for MWCI customers. Then on 7 October 2003, an FCDA of 4.09 percent of basic charge for MWCI took effect.  
The AEPA is a mechanism used to recover foreign exchange (FOREX) losses incurred from 1 August 1997 to 31 December 2000. The AEPA rate adjustment of 1.00 pesos/cu.m. is retroactively from 25 October to 31 December 2002 or up to the next immediate Rate Rebasing period.  
The STM is used to recover FOREX losses for the period from 1 January to 31 December 2001 and FOREX losses incurred from 1 December 1997 to 31 December 2000, which are unrecovered as of 31 December 2002. The STM was implemented from 1 July 2002 up to the first Rate Rebasing, 1 January 2003.  
Amendment No.1 practically resulted to reduced water and sewer service targets (e.g. water pressure level will be maintained at the current level of 7-pounds-per-square-inch (psi) instead of the original target level of 16 psi; sewerage coverage target of 66 percent for 2021 to be reduced to only 31 percent for MAYNILAD and from 55 percent target to below 15 percent for MWCI).
- <sup>6</sup> Refer to Annex A for the contents of Amendment No. 1.
- <sup>7</sup> This had been started by the MWSS Regulatory Office (RO) when it undertook the MWSS Public Performance Assessment Project (or PPA). According to the RO, the PPA is an assessment approach based on objective indicators (e.g., pressure, hours of service, water quality) and consumer perception (subjective indicators of service provision). Intended to complement current MWSS monitoring and enforcement activities, the PPA is yet to be fully implemented.
- <sup>8</sup> Rate rebasing involves a general rate revision. The bases for the original bids of the concessionaires such as capital Expenditures, Revenues, Interest Payments and Projected Operating Expenses are revisited, examined and revalidated in order to determine whether the tariff rates being charged are still sufficient to earn a reasonable rate of return.
- <sup>9</sup> The FCDA mechanism means the rate adjustment mechanism for the recovery or compensation on a current basis, subject to quarterly review and adjustment by MWSS, when necessary, of accrued FOREX losses/gains beginning January 1, 2002, arising from MWSS loans and any Concessionaire loans in accordance with paragraph 2.3 used for capital expenditures and concession fee payments only, in accordance with paragraph 3 hereof, in lieu of the EPA recovery mechanism for FOREX losses under Article 9.3 of the CA.

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## Annex A. Amendment No 1

Amendment No. 1 basically called for an Extraordinary Price Adjustment (EPA) to cover:

- (1) In respect of any MWSS loan assumed by the concessionaire, the more than 2 percent change that occurred after December 6, 1996 in the foreign exchange rate between the Philippine peso and the currency in which the MWSS loans were denominated, and
- (2) In respect of any concessionaire loan, the change of more than 2 percent after the draw down date of such concessionaire loan in the foreign exchange rate between the Philippine peso and the currency in which Concessionaire loans were denominated.

Proponents of the amendment justified the decision on the ground that such movement of the foreign exchange rate had not been previously the subject of an EPA, and that the EPA mechanism for the foreign currencies exchange rate (FOREX) changes in the CA is spread over the remaining life of the concession period. To concretize this, Board Resolution No. 512-2001 was issued allowing MWCI to:

- o Implement a rate adjustment of PhP1.00 per cubic meter during the period 25 October 2001 to 31 December 2002 or up to the next immediate Rate Rebasing<sup>8</sup> period to recover the FOREX losses incurred from 1 August 1997 to 31 December 2000, with any unrecovered FOREX losses, to be recovered through the special transitory mechanism under Section 1.2 below;
- o Implement a special transitory mechanism in accordance with paragraph 2.1 to enable MWCI to recover FOREX losses for the period beginning 1 January 2001 up to 31 December 2001 and past FOREX losses incurred 1 August 1997 to 31 December 2000, which are unrecovered as of 31 December 2002. Such transitory mechanism shall commence in 1 July 2002 up to the First Rate Rebasing, 1 January 2003, with the view to mitigating the overall tariff increase arising from the Rate Rebasing to take effect on 1 January 2003;
- o Implement a rate adjustment for foreign currency differentials<sup>9</sup> (FCDA) with respect to present and future FOREX losses or gains, including all accruals and carrying costs thereof, from the period 1 January 2002 until the Expiration Date on a quarterly basis.

In addition, the same Board Resolution imposed the following on MWCI:

- o A correction mechanism to be formulated by the RO in consultation with MWCI to avoid under-recovery or over-recovery of FOREX losses;
- o Coordination with the RO, in studying means to improve cross-subsidy in favor of poor households, and accelerate delivery and provision of water services to the poorest barangays in its concession area;
- o As part of the Rate Rebasing process, for purposes of determining the FOREX losses/gains to be recovered by MWCI, the RO shall ensure that the concessionaire's loan finance only concession fees and capital expenditures which have been prudently and efficiently incurred, in accordance with section 2.1.

Similarly, Board Resolution 487-2001 allowed MAYNILAD to:

- o Implement a rate adjustment of PhP4.21 per cubic meter during the period 15 October 2001 to 31 December 2002 to recover the FOREX losses incurred from 1 August 1997 up to 31 December 2000, with any unrecovered FOREX losses, to be recovered through the special transitory mechanism under Section 1.2 below;
- o Implement a special transitory mechanism in accordance with paragraph 2.1 to enable MAYNILAD to recover FOREX losses for the period beginning 1 January 2001 up to 31 December 2001, including FOREX losses arising from the (a) repayment of the US\$100 million bridge loan and short-term loans and other payments relating thereto, in accordance with paragraph 2.5 hereof; (b) payment of the amount of Concession Fees suspended; and (c) past FOREX losses incurred 1 August 1997 to 31 December 2000 which are unrecovered as of 31 December 2002. Such transitory mechanism shall commence in July 2002 at the latest for a period of two (2) to four (4) years with the view to mitigating the impact to the end users and reducing the overall tariff increase in 2003-2005 arising from the Rate Rebasing which will take effect on 1 January 2003;
- o Implement a rate adjustment with respect to present and future FOREX losses or gains, including all accruals and carrying costs thereof, from the period January 2002 until the Expiration Date on a quarterly basis, provided, however, that the adjustment shall not apply to FOREX losses or gains arising from (a) the reimbursement of the US\$100 million bridge loan and short-term loans and other payments relating thereto; and (b) the payment of the amount of concession fees suspended, incurred and/or expected to be incurred, which will be recovered through the special transitory mechanism as described in item 1.2 above.

In view of the above, the following were likewise imposed upon MAYNILAD, among others:

- ☐ A correction mechanism to be formulated by the RO in consultation with MAYNILAD to avoid under-recovery or over-recovery of FOREX losses;
- ☐ Infusion of additional funding support from its stockholders in the amount of US\$80 million as part of the total Project Finance;
- ☐ Resume payment of the MWSS Current Operating Budget for CY 2002, which is part of the Concession Fees, beginning 2 January 2002. With respect to the maturing debt service obligations, payments shall be made by MAYNILAD subject to its capacity to pay depending on its cash flow as determined by MWSS;
- ☐ Coordination with the RO, in studying means to improve cross-subsidy in favor of poor households, accelerate delivery and provision of water services to the poorest barangays in its concession area, and to address during the Rate Rebasing period the disparity in the tariffs of the West and East Concessions."

**Annex B. Water Tariff Structure, East Zone, Manila Water Company, Inc. (MWCI), Effective October 7, 2003**

A. BASIC CHARGE	1997 Pre-Privatization Rate (1)	August 1, 1997 Bid Rate (2)	October 7, 2003 Rate (3)	% Increase from (1) to (3)	% Increase from (2) to (3)
RESIDENTIAL					335 %
First 10 cu m	29.50/conn	7.78/conn.	33.81/conn	18.63 %	
Next 10 cu m	3.60/cu.m.	0.95/cu.m.	4.13/cu m	14.72 %	
Next 20 cu m	6.85/cu.m.	1.80/cu.m.	7.82/cu m	14.16 %	
Next 20 cu m	9.00/ cu m.	2.37/cu.m.	10.30/cu m	14.44 %	
Next 20 cu m	10.50/cu.m.	2.77/cu.m.	12.04/cu m	14.67 %	
Next 20 cu m	11.00/cu.m.	2.90/cu.m.	12.60/cu m	14.55 %	
Next 50 cu m	11.50/cu.m.	3.03/cu.m.	13.17/cu m	14.51 %	
Nest 50 cu m	12.00/cu.m	3.16/cu.m.	13.73/cu m	14.25 %	
Over 200 cu m	12.50/cu.m	3.29/cu.m	14.30/cu m	14.40 %	
SEMI-BUSINESS					335 %
First 10 cu m	49.50/conn.	13.06/conn.	56.76/conn	14.67 %	
Next 10 cu m	6.05/cu.m.	1.59/cu.m	6.91/cu m	14.21 %	
Next 20 cu m	7.45/cu.m.	1.96/cu.m	9.52/cu m	27.78 %	
Next 20 cu m	9.45/cu.m.	2.49/cu.m	10.82/cu m	14.50 %	
Next 20 cu m	11.50/cu.m	2.90/cu.m.	12.60/cu m	9.56 %	
Next 20 cu m	11.50/cu.m	3.03/cu.m.	13.17/cu m	14.52 %	
Next 50 cu m	12.00/cu.m	3.16/cu.m.	13.73/cu m	14.42 %	
Nest 50 cu m	12.50/cu.m	3.29/cu.m.	14.30/cu m	14.40 %	
Over 200 cu m	13.00/cu.m	3.43/cu.m	14.91/cu m	14.69 %	
BUSINESS GROUP I					335 %
First 10 cu m	134/conn	P35.36/conn	153.67/conn	14.68 %	
Next 90 cu m	13.45/cu.m.	3.54/cu.m.	15.38/cu m	14.35 %	
Next 100 cu m	13.50/cu.m.	3.56/cu.m.	15.47/cu m	14.59 %	
Next 100 cu m	13.55/cu.m	3.57/cu.m.	15.51/cu m	14.46 %	
Next 100 cu m	13.60/cu.m.	3.58/cu.m.	15.56/cu m	14.41 %	
Next 100 cu m	13.65/cu.m	3.60/cu.m.	15.64/cu m	14.58 %	
Next 100 cu m	13.70/cu.m.	3.61/cu.m.	15.69/cu m	14.52 %	
Next 100 cu m	13.75/cu.m	3.62/cu.m.	15.73/cu m	14.40 %	
Next 100 cu m	13.80/cu.m	3.64/cu.m.	15.82/cu m	14.64 %	
Next 100 cu m	13.85/cu.m.	3.65/cu.m.	15.86/cu m	14.51 %	
Next 100 cu m	13.90/cu.m.	3.66/cu.m.	15.91/cu m	14.46 %	
Next 200 cu m	13.95/cu.m	3.68/cu.m.	15.99/cu m	14.62 %	
....	...	...	...	...	
BUSINESS GROUP II					335 %
First 10 cu m	145/conn.	P38.26/conn	P166.27/conn	14.67 %	
Next 90 cu m	14.60/cu.m	3.85/cu m	16.73/cu m	14.59 %	
Next 100 cu m	14.70/cu.m	3.87/cu m	16.82/cu m	14.42 %	
Next 100 cu m	14.80/cu m	3.90/cu m	16.95/cu m	14.53 %	
Next 100 cu m	14.90/cu m	3.93/cu m	17.08/cu m	14.63 %	
Next 100 cu m	15.00/cu m	3.95/cu m	17.17/cu m	14.47 %	
Next 100 cu m	15.10/cu m	3.98/cu m	17.30/cu m	14.57 %	
Next 100 cu m	15.20/cu m	4.01/cu m	17.43/cu m	14.67 %	
Next 100 cu m	15.30/cu m	4.03/cu m	17.51/cu m	14.44 %	
Next 100 cu m	15.40/cu m	4.06/cu m	17.64/cu m	14.54 %	
Next 100 cu m	15.50/cu m	4.09/cu m	17.77/cu m	14.64 %	
Next 200 cu m	15.60/cu m	4.11/cu m	17.96/cu m	15.13 %	
....	...	...	...	...	
2.A ENVIRONMENTAL CHARGE (EC) = 10% of water charge					
2.B SEWERAGE CHARGE (SC) = 50% of the Water Charge for all customers connected to the MWCI sewer lines					
3. MAINTENANCE SERVICE CHARGE (MSC) (depending on meter size)					
Meter size	Amount (peso/connection)		Meter size	Amount (peso/connection)	
½" or 13 mm	P1.50		2" or 50 mm	P6.00	
¾ or 20 mm	2.00		3" or 75 mm	10.00	
1" or 25 mm	3.00		4" or 100 mm	20.00	
1 ¼ or 40 mm	4.00		6" or 150 mm	35.00	
			8" or 200 mm	50.00	
4. value-Added Tax = 10% for the Charges 1, 2 and 3					
THE MONTHLY BILL IS THE SUM OF 1, 2, 3 & 4					

Source: MWSS-RO.

**Annex C. Water Tariff Structure, West Zone, MAYNILAD Water Services, Inc. (Effective January 1, 2002)**

A. BASIC CHARGE	1997 Pre-Privatization Rate (1)	August 1, 1997 Bid Rate (2)	Rates Effective January 1, 2002 (3)	% Increase from (1) to (3)	% Increase from (2) to (3)
RESIDENTIAL				30.0 %	130 %
First 10 cu m	29.50/conn	P16.69/conn.	P38.35/conn.		
Next 10 cu m	3.60/cu.m.	2.03/cu.m	4.68/cu.m		
Next 20 cu m	6.85/cu.m.	3.87/cu.m	8.90/cu.m		
Next 20 cu m	9.00/ cu m.	5.09/cu m	11.69/cu m		
Next 20 cu m	10.50/cu.m.	5.94/cu m	13.66/cu m		
Next 20 cu m	11.00/cu.m.	6.22/cu m	14.28/cu m		
Next 50 cu m	11.50/cu.m.	6.50/cu m	14.93/cu m		
Nest 50 cu m	12.00/cu.m	6.79/cu m	15.60/cu m		
Over 200 cu m	12.50/cu.m	7.07/cu m	16.26/cu m		
SEMI-BUSINESS				30.1 %	130 %
First 10 cu m	49.50/conn.	P28.01/conn.	P64.42/conn.		
Next 10 cu m	6.05/cu.m.	3.42/cu.m	7.86/cu.m		
Next 20 cu m	7.45/cu.m.	4.21/cu.m	9.69/cu.m		
Next 20 cu m	9.45/cu.m.	5.34/cu m	12.28/cu m		
Next 20 cu m	11.50/cu.m	6.22/cu m	14.28/cu m		
Next 20 cu m	11.50/cu.m	6.50/cu m	14.95/cu m		
Next 50 cu m	12.00/cu.m	6.79/cu m	15.60/cu m		
Nest 50 cu m	12.50/cu.m	7.07/cu m	16.26/cu m		
Over 200 cu m	13.00/cu.m	7.35/cu m	16.90/cu m		
BUSINESS GROUP I				30.0 %	130 %
First 10 cu m	134/conn	P75.83/conn.	P174.29/conn.		
Next 90 cu m	13.45/cu.m.	7.61/cu.m	17.51/cu.m		
Next 100 cu m	13.50/cu.m.	7.63/cu.m	17.56/cu.m		
Next 100 cu m	13.55/cu.m	7.66/cu m	17.61/cu m		
Next 100 cu m	13.60/cu.m.	7.69/cu m	17.67/cu m		
Next 100 cu m	13.65/cu.m	7.72/cu m	17.73/cu m		
Next 100 cu m	13.70/cu.m.	7.75/cu m	17.82/cu m		
Next 100 cu m	13.75/cu.m	7.78/cu m	17.89/cu m		
Next 100 cu m	13.80/cu.m	7.80/cu m	17.94/cu m		
Next 100 cu m	13.85/cu.m.	7.83/cu m	18.01/cu m		
Next 100 cu m	13.90/cu.m.	7.86/cu m	18.06/cu m		
Next 200 cu m	13.95/cu.m	7.89/cu m	18.15/cu m		
....	...	...	...		
BUSINESS GROUP II				30.00 %	129.85 %
First 10 cu m	145/conn.	P82.05/conn.	P188.59/conn.		
Next 90 cu m	14.60/cu.m	8.25/cu.m.	18.98/cu.m		
Next 100 cu m	14.70/cu.m	8.31/cu.m	19.10/cu.m		
Next 100 cu m	14.80/cu m	8.37/cu m	19.24/cu m		
Next 100 cu m	14.90/cu m	8.43/cu m	19.38/cu m		
Next 100 cu m	15.00/cu m	8.48/cu m	19.51/cu m		
Next 100 cu m	15.10/cu m	8.54/cu m	19.64/cu m		
Next 100 cu m	15.20/cu m	8.60/cu m	19.77/cu m		
Next 100 cu m	15.30/cu m	8.65/cu m	19.89/cu m		
Next 100 cu m	15.40/cu m	8.71/cu m	20.03/cu m		
Next 100 cu m	15.50/cu m	8.77/cu m	20.15/cu m		
Next 200 cu m	15.60/cu m	8.82/cu m	20.28/cu m		
....	...	...	...		
B. Currency Exchange Rate Adjustment (CERA) = P 1.00/ cu.m.					
C. FOREIGN EXCHANGE DIFFERENTIAL ADJUSTMENT (FCDA) = a percentage of basic water charge (computed at 35.73% as of July 2002)					
2.A. Environmental Charge (EC) = 10% of the Water Charges					
2.B. Sewerage Charge (SC) = 50% of the Water Charges for all customers connected to MWSI sewer lines					
3. MAINTENANCE SERVICE CHARGE (MSC) (depending on meter size)			Meter size      Amount (peso/connection)		
Meter size      Amount (peso/connection)			2" or 50 mm      P6.00		
½" or 13 mm      P1.50			3" or 75 mm      10.00		
¾ or 20 mm      2.00			4" or 100 mm      20.00		
1" or 25 mm      3.00			6" or 150 mm      35.00		
1 ¼ or 40 mm      4.00			8" or 200 mm      50.00		
4. value-Added Tax = 10% for the Charges 1, 2 and 3					
THE MONTHLY BILL IS THE SUM OF 1, 2, 3 & 4					

Source: MWSS-RO.