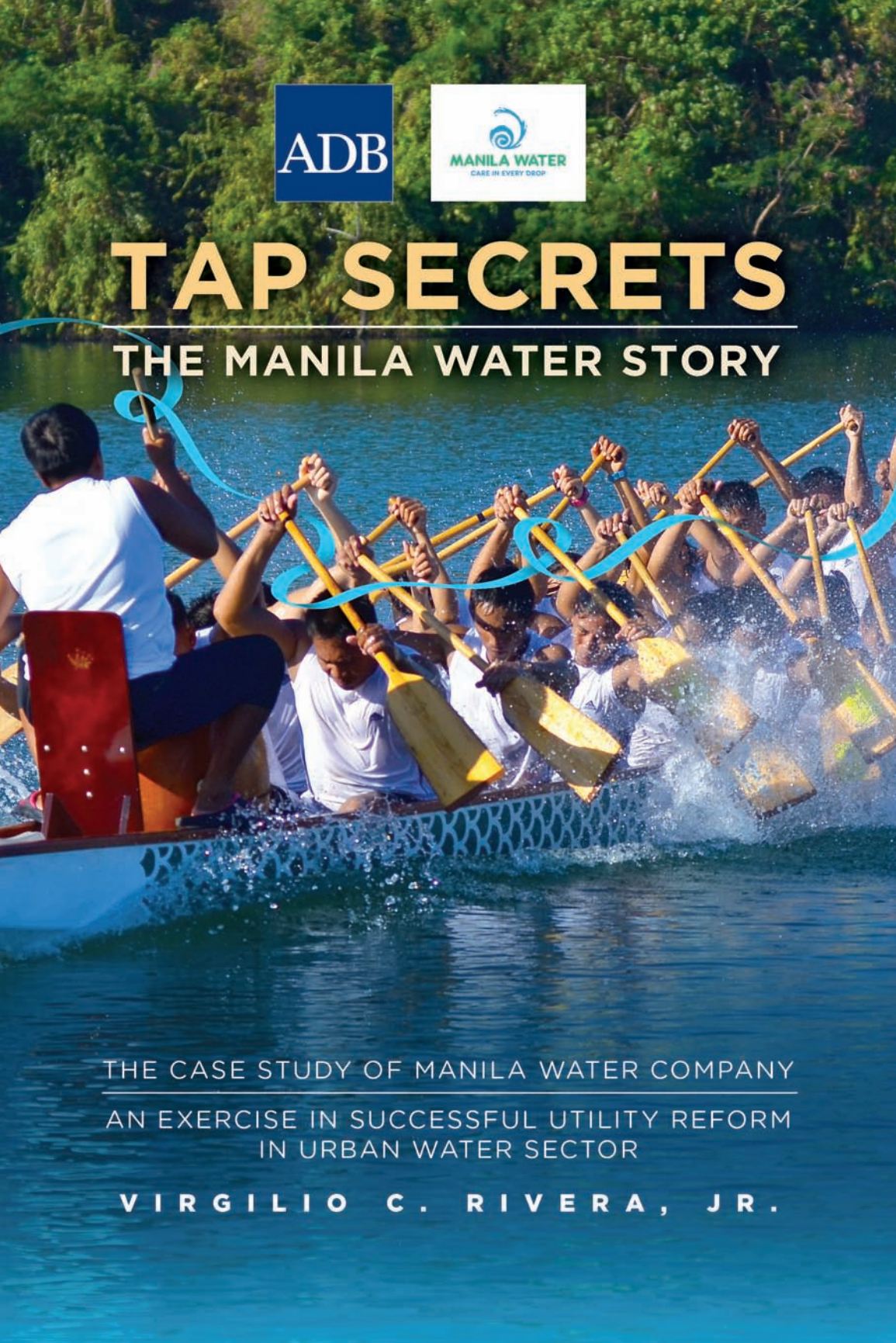

TAP SECRETS

THE MANILA WATER STORY

THE CASE STUDY OF MANILA WATER COMPANY

AN EXERCISE IN SUCCESSFUL UTILITY REFORM IN URBAN WATER SECTOR

VIRGILIO C. RIVERA, JR.

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FOREWORD

THE ASIAN DEVELOPMENT BANK (ADB) is pleased to have witnessed Manila Water's corporate transformation.

Manila Water had a rough start before becoming the successful water utility it is known today. In 1997, Manila Water inherited the operational challenges and foreign debt of the then state-owned Metropolitan Waterworks and Sewerage System when it took over the water and sewerage system operations in the eastern part of Metro Manila. The company had to deal with an aging water distribution system, addressing human resources concerns, managing public perceptions, and servicing almost 2 million customers.

How Manila Water rose against these daunting challenges has baffled many, and the company has done well in keeping the secrets of its success until now.

With a $1 billion investment, Manila Water replaced kilometers of pipes, expanded service connections, increased service availability, and reduced nonrevenue water from 63% in 1997 to 11% in 2012. The company now serves more than 6 million happy customers enjoying 24/7 water supply.

ADB and Manila Water worked on reaching out to low-income communities through the company's "Tubig para sa Barangay" (Water for the Community) project which offered low connection fees and affordable water tariffs. More recently, ADB and Manila Water embarked on an education campaign on wastewater management to restore the health of the Pasig River, Metro Manila's polluted main waterway.

In this book, Manila Water reveals its most classified corporate secrets, which finally sheds light on the company's success in instituting water sector reforms. It explains Manila Water's meteoric rise, as a diligent carrying out of a carefully-designed plan that breaks through stumbling blocks, some with more difficulty than others, in its way to become one of Asia's model water utilities. Essentially, it is a story of a water utility's amazing transformation that resulted from tapping the unlimited potential of important yet often underappreciated corporate resources. This is the secret of Manila Water's success.

ADB congratulates Manila Water in the publication of this book and looks forward to more successful partnerships with the company in the future. We hope that managers of water utilities and operators in Asia can draw lessons and inspiration from this book and consider Manila Water's Tap Secrets as also their own.

Bindu N. Lohani
Vice President
Knowledge Management and Sustainable Development
Asian Development Bank

PREFACE

THE MANILA WATER story is about the transformation from what has been perceived to be an ailing public sector company to a commercially viable enterprise which has been a recipient of such awards as the International Water Association's (IWA) Global Project Innovation Awards and the prestigious Asian Human Capital Award by the Government of Singapore. This transformation, this change was not even possible if not for the men and women of Manila Water who shared a dream – a dream that this once ailing organization can be great and become an agent to improve people's lives by making sure that clean and safe water flows with a turn of a tap.

'Tap Secrets' is a flagship publication of Manila Water, in collaboration with the Asian Development Bank, that weaves a collection of ideas and concepts on how "change management" was used to transform the organization into a world-class water utility service.

This flagship publication is inspired by several dynamic forces, foremost of which is the strategic vision and political will of the framers of the concession agreement through the efforts of former President of the Republic of the Philippines, H.E. Fidel V. Ramos, and his privatization team, who had the political will to introduce reform in the Metropolitan Waterworks and Sewerage System (MWSS). The Concession Model that the Government developed, while not perfect, was dynamic, progressive and appropriate for a megacity such as Metro Manila.

This publication is also a tribute to all the customers and clients of our company, who deserve reliable and consistent good service; to the MWSS and its Regulatory Office for the unwavering support throughout the years; and most importantly, the hard work and dedication of the past and current leaders, employees, and shareholders of Manila Water Company, Inc. We also recognize the strategic role of creditors who help us finance our ambitious capital investment plans.

The challenges remain. The obstacles are ever present. But we also see the opportunities to make a big difference in the lives of people we endeavor to serve. We have committed from the very start to sustain a level of excellence in all that we do. And we will continue to uphold our promise – a promise to change the very lives of our own people and our customers, the Filipino people.

The success of Manila Water is within each and every employee in the organization. Each one of their stories, collectively, is Manila Water's success story. These men and women are our 'Tap Secrets.'

Virgilio C. Rivera, Jr.

ACKNOWLEDGMENTS

MANY PEOPLE provided invaluable support and contribution to make this flagship publication possible. I am grateful for the contributions of my colleagues and co-workers.

At Asian Development Bank (ADB), I am grateful to WooChong Um, Deputy Director General of the Regional and Sustainable Development Department (RSDD); Amy Leung, Director, Southeast Asia Urban Development and Water Division, and Chair, ADB Water Community of Practice (Water CoP); and Gil-Hong Kim, Director, Sustainable Infrastructure Division, and Co-Chair, Water CoP for their encouragement and support. Ellen Pascua (Water CoP) for her insights and overall direction and guidance, without which this flagship publication would not have been initiated. Cezar Tigno (Water CoP) for providing an ingenious title, *Tap Secrets!* Peer review provided by Anand Chiplunkar, Principal Water Supply and Sanitation Specialist, and K.E. Seetharam, Principal Operations Coordination Specialist.

At Manila Water Company, Inc., I would like to thank Fernando Zobel de Ayala, Chairman, Manila Water Company, Inc., Gerardo C. Ablaza, Jr., President and CEO, Manila Water Company, Inc. To the following people for their cooperation and assistance with editorial and production matters: Anna Marie Joy Fernandez, Rosielle Gonzales, Christopher Ilagan, Lia Guerrero, Carla Beriña-Kim, and Ruby Mangaliman.

To the many reviewers who provided their time to read and comment on the publication.

To Anna Lissa Navelgas-Capili, ADB Consultant for Water CoP, who supported the preparation of this flagship publication.

To Susan Grace Rivera, who provided the very first review of the completed manuscript.

Virgilio C. Rivera, Jr.

Abbreviations

ADB	Asian Development Bank
ADR	Appropriate discount rate
AMDP	Advance Management Development Program
AR	Accounts receivable
BMP	Business Management Program
BOP	Base of the pyramid
BV	Billed volume
BOT	Build-operate-transfer
C2	Chairman's Circle
CDS	Central distribution system
CPI	Consumer price index
CSR	Corporate social responsibility
DMA	District metering area
DMC	Developing member country
DMZ	Demand monitoring zone
DTI	Department of Trade and Industry
EPA	Extraordinary price adjustment
ESOP	Employee Stock Option Plan
FCDA	Foreign currency differential adjustment
FX	Foreign exchange
GDP	Gross domestic product
ICC	International Chamber of Commerce
IFC	International Finance Corporation
IPO	Initial public offering
IWA	International Water Association
JICA	Japan International Cooperation Agency
KPI + BEM	Key performance indicators + business efficiency measures
KRA	Key result area
LIFE	Leadership Institute for Manila Water Employees
MWCI	Manila Water Company, Inc.
MWSS	Metropolitan Waterworks and Sewerage System
NERA	National Economic Research Associates
NRW	Non-revenue water
NWCA	National Water Crisis Act
OECD	Organisation for Economic Co-operation and Development
P3	President's Pride due to Performance
PAWS	Public Assessment of Water Services
PPP	Public-private partnership
PSE	Philippine Stock Exchange
RA	Republic act
RAL	Rate adjustment limit
RORB	Return on rate base
TOWER Award	The Outstanding Workers of the Republic Award
TPSB	Tubig Para Sa Barangay (Water for the Community)
TM	Territory Manager
TMS	Total management system
UP-NEC	University of the Philippines-National Engineering Center

Weights and Measures

lpcd	liter per capita per day
mm	millimeter
m^3	cubic meter
MLD	megaliter per day

NOTE

In this publication, "$" refers to US dollars.

PART I

OVERVIEW

CHAPTER ONE

TAP SECRETS: THE MANILA WATER STORY

TAP SECRETS: The Manila Water Story *(The Case Study of Manila Water Company – An Exercise in Successful Utility Reform in Urban Water Sector)* is like no other publication in water sector reform in the sense that it provides an insider's view of the transformation of the Metropolitan Waterworks and Sewerage System (MWSS) using the public-private partnership (PPP) concept. It also chronicles the achievements of Manila Water Company, Inc. (Manila Water) particularly in reforming a water utility that was known to be lagging behind its neighboring cities. While the reform is central to this publication, what sets it apart is the coming together of a truly unique experience culled from different points of view in the implementation of one of the largest water concessions in the world, the Manila Water Company concession.

The Manila Water story, more than anything, is about the importance of the employees themselves. In order to build a commercially viable operation, Manila Water needed to work with, cultivate and build on the former organization of the MWSS.

This is a story of change - how it can be planned and managed. It describes how individuals, teams, an entire organization transitioned from a "reactive and complacent" workforce to a much desired state – one that is "proactive and responsible." It is about a firm belief in people paying off in a big way. It is all about surviving and thriving against all odds because of the work and efforts of its employees. Change became evident not only among Manila Water's people, but also among the customers who began to take notice of the improved

"We knew very little about the water industry and about managing a water system. There weren't any set rules at that time. It was unchartered territory for us. But we wanted to fix the water system of Manila and we knew that would have an impact to a lot of people that had no water in the past. It was a mission to fulfill, and not a business to run."

– FERNANDO ZOBEL DE AYALA, CHAIRMAN, MANILA WATER COMPANY

Source: *Agos*, The Official Magazine of Manila Water Company, Vol. 16/No. 130, July-September 2012.

quality of service they received. The "change for the better" standard around which Manila Water built a reputation through the years has tremendously contributed to its success.

As in most transformation initiatives, the achievement of the concession's objectives did not happen overnight. While the broad vision and strategy were clear from the very start, most of the change was incremental. As Manila Water would describe it, "it was not evident when it was transpiring and only apparent in hindsight."[1] Through hard work and commitment, and by motivating, inspiring, and engaging all its human capital assets to be part of the organization's mission, Manila Water has transformed itself into a world-class water and wastewater service organization.

Through corporate transformation and instituting the building blocks of change, Manila Water was able to harvest the fruits of change. By sharing this story, Manila Water hopes to:

- Share its experience in implementing one of the largest water concessions in the world;
- Identify the key corporate challenges faced and milestones achieved;
- Define the key risk mitigation strategies adopted by the company and the public;
- Determine the impact of key unforeseen factors and "supply shocks," and how Manila Water responded to these factors; and
- Identify emerging issues and challenges to continue to deliver and provide better customer service.

[1] Virgilio C. Rivera, Jr. (in press). *The Manila Water Story.*

CHAPTER TWO

THE WATER CRISIS AND PRIVATIZATION

THE METROPOLITAN Waterworks and Sewerage System (MWSS) is the Philippine government's corporate arm mandated to provide water and sewerage services in Metro Manila.[2] It serves a total of 15 million people.[3]

MWSS' predecessor, the Carriedo Water System, initially supplied water only to the city of Manila. In 1971, a Republic Act (RA) created the Metropolitan Waterworks and Sewerage System. The MWSS became a water service provider in a much larger service area consisting of the National Capital Region, the province of Rizal, and some parts of the province of Cavite. Under its charter, it shall have jurisdiction and control over all waterworks and sewerage system in the "*cities of Manila, Pasay, Quezon, Cavite and Caloocan; the municipalities of Antipolo, Cainta, Las Piñas, Makati, Malabon, Mandaluyong, Marikina, Montalban, Navotas, Paranaque, Pasig, Pateros, San Juan, San Mateo, Taguig, Taytay, all of Rizal Province, the municipalities of Bacoor, Imus, Kawit, Noveleta, Rosario, all of Cavite province and Valenzuela, Bulacan.*"[4]

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[2] Republic Act (RA) 6234, An Act Creating the Metropolitan Waterworks and Sewerage System and Dissolving the National Waterworks and Sewerage Authority, states that the MWSS is a government agency mandated "to ensure an uninterrupted and adequate supply and distribution of potable water for domestic and other purposes at just and equitable rates."

[3] Finance Asia. Infrastructure Philippines 2012. New Water Sources Projects of the Metropolitan Waterworks and Sewerage System (MWSS). Investing & Financing in Public-Private Partnership Projects.

[4] Section 2.c of RA 6234.

Metro Manila sources its water supply from the Angat and Ipo dams. Raw water then flows to the La Mesa dam.

A Board of Trustees exercised the corporate powers and functions of the MWSS. The Board is composed of a Chairman, the General Manager as ex officio Vice-Chairman, and three members. One of the members shall come from the rank-and-file of the MWSS, who will be nominated by the Labor Union. The Chairman, along with the three members of the Board shall be appointed by the President of the Philippines as approved by the Commission on Appointments. They would hold office for three years.

Caught in a Vicious Cycle

The MWSS gets its raw surface water from two sources: the Angat and the Ipo dams. About 98% of Metro Manila's water supply (around 4 million cubic meters per day) from the central distribution system (CDS)[5] is derived from these dams. Additional sources came from watershed inflow to the Ipo dam and a small watershed run-off into the reservoir at the La Mesa treatment plant in Quezon City. Additionally, MWSS administered 258 deep wells, with only 113 being operational.

In the mid-1990s, the water sector in Metro Manila was trapped in a vicious cycle – one characterized by decades of underinvestment that led to poor water services and low coverage. Only 10% of the whole service area had an average of 16 hours per day water supply. (The 10% include both served and unserved households.) On the other hand, 65% of the whole service area (served and unserved)

[5] The MWSS water distribution system is divided into the central distribution system (CDS) and local networks. The CDS is supplied mainly by surface water while the latter is supplied by groundwater from MWSS deep wells. The local networks serve the fringe areas and other areas in the CDS that are not connected to the surface supply system.

TABLE 1. Metro Manila population with access to water, 1996

1996	POPULATION (MILLIONS)	COVERAGE (%)	WATER AVAILABILITY (HOURS PER DAY)
Metro Manila	11.0	67%	Ave. of 16

Source: Manila Water Company, Inc.

have water supply. This means that 35% was not covered by the MWSS.

MWSS delivered an average of 2,700 megaliters per day (MLD) to 7 million people (for the East and West zones).[6] Supply was intermittent, with more than 63% water loss due to leakages and water theft, among others. As of 1996, MWSS supplied potable water directly to 67% of the 10.6 million residents within its service area. There was a total network of around 770,000 water service connections, while an additional 7.5% of the residents got their water from public water standpipes.[7]

On the other hand, due to its poor service, government was unable to increase water tariffs basically because the customers were unwilling to pay, and this was further aggravated by poor collections. The situation translated to very low cash flows, which is then again linked to the issue of underinvestment.

With the Philippines experiencing increased industrialization and population growth, the MWSS was unable to cope with the demand for efficient and quality supply of water. Faced with rapid growth and urbanization, MWSS was confronted with a major challenge: how to provide clean drinking water to the growing population of Metro Manila.

"Overall, I'd say that our manner of thinking has changed. There's no more 'I can't be fired so I can work so-so.' People work harder now. And our attitude toward the customer has changed – they are now our business partners for without them we cannot exist and vice versa."

– WILLIAM MANANSALA, CUSTOMER RELATIONS OFFICER

[6] Metropolitan Waterworks and Sewerage System (MWSS). March 1996.

[7] MWSS. March 1996.

System Losses

Service delivery of the MWSS was beset by huge system losses due to pilferage and leaks, poor service (with only a handful experiencing 24/7 water supply), and low sanitation coverage. According to the Asian Development Bank (ADB), "system leakages were high, with non-revenue water (NRW) hovering at almost 60%."[8] NRW is usage that is not billed because of leakages from pipelines, measurement problems from faulty meters, and/or illegal connections. According to the MWSS estimates, 29% accounted for leakage, 15% for pilferage, 9% for meter-related errors, and 2% for other reasons.[9] Much of the supplied water was non-metered; and if it was, metering was usually 'gushing' with problems, which further presented difficulties with billing and collection.

To suggest that water quality was poor is an understatement. Access to sufficient and safe water supply on a 24-hour basis was a "privilege" for a limited number of households. The reality was most households received water for only a few hours each day. To make matters worse, the quality was generally suspect as water often came from doubtful sources, such as wells, springs and communal faucets that led to high incidence of waterborne diseases.[10] Throughout the eastern portion of the service area alone, MWSS was losing 1,000 MLD from physical leaks and pilferage. At 150 liters per capita per day (lpcd), the 1,000 MLD could have served around 6.7 million people. To illustrate this point further, think of 1 billion plastic bottles of soda (1-liter size) being spilled everyday. Almost two-thirds of water supply was lost on a daily basis.

It does not take a rocket scientist to figure out why only less than 2 out of 10 households had 24/7 water supply, since only 26% of water-served population at that time had 24/7 water supply. That means 26% of that 67% connected are those with 24/7 water supply; and that 74% of that 67% connected have less than 24/7 water supply. On the other hand, if the system losses are 63%, this means that only 37% of water produced/treated is billed or accounted for.

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[8] Asian Development Bank (ADB). 1996.

[9] MWSS. March 1996.

[10] National Water Crisis Act. Water for the People. http://www.lwua.gov.ph/technical_matters_10/RA%208041-%20National%20Water%20Crisis%20Act.pdf (Accessed 15 October 2012).

Many households were not even connected to piped water from the MWSS. Many of these households then took it upon themselves to dig wells. For the rest, it meant waking up very early in the morning, or staying up very late at night to queue to get their daily ration from vendors and private water tankers – time that could have been otherwise spent for more productive endeavors.

Nonexistent Wastewater Management

Along with scarce water supply, sewer coverage was at a measly 3%. People, and more importantly the policy makers, did not have an appreciation of the fact that water supply is best viewed as a cycle: where water consumed becomes wastewater, which in turn, has to be treated before it is discharged to rivers and other water bodies.

Intentionally or unintentionally, people forgot about wastewater. Sadly, no one really paid much attention to it – no one wanted to talk about where used water goes after it was consumed.

Low Tariffs

Obviously, with very poor water delivery service, it was difficult to set in place a good system for tariffs. Households were unwilling to pay because of the poor quality of service. The vicious cycle, that in which MWSS found itself, made the utility incapable of maintaining financially viable operations. To augment the revenue gap, MWSS accumulated debt amounting to about $1 billion from international development organizations such as ADB,[11] the World Bank, and the Japan International Cooperation Agency (JICA). Large amounts of loans, which

[11] ADB Loans 645/947-PHI: Manila Water Supply Rehabilitation Projects 1 & 2.

MWSS covered

67%

of Metro Manila in 1996.

26% of that **67%** connected are those with **24/7 water supply**

74%

of that **67%** connected have less than **24/7 water supply**

were backed by government guarantees over the years, were approved and allocated for the main purpose of improving the MWSS' system of water service. Inspite of this, service was still inadequate. Needless to say, the problem with cash flow made it more difficult for MWSS to finance needed capital expenditures and also to service existing debts.[12] There was definitely very little incentive to improve performance in the water and wastewater sector in the region. This then resulted in complacency for the water utility.

Maintenance Issues

Faced with huge budget deficits, MWSS was unable to maintain its facilities at optimum operational levels. The MWSS headquarters was poorly maintained or was fast deteriorating. Broken down elevators, defective air-conditioning units, leaking roofs, and poorly maintained toilets were only some of the obvious maintenance issues both at headquarters and branch offices. Ironically, some MWSS branch offices did not have sufficient water supply. Treatment plants, which should have been secured and protected, were slowly being taken over and occupied by informal settlers.

Low Productivity

MWSS, at one point, employed nearly 15,000 employees. Despite this staggering number, with a total of 9.8 employees per 1,000 water supply connections,[13] productivity was at its lowest. According to a case study prepared by the Harvard Business School, this was partly due to overstaffing. It became difficult to let go of poor performers because employees were protected by the Civil Service Commission – the department mandated as the central personnel agency of the government. In addition, employee performance was not linked to the goals of the organization; thus, performance reviews often had very little impact on the individual's pay or bonus.[14]

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[12] Freedom from Debt Coalition. 2009. *Recalibrating the Meter*. (Accessed 19 October 2012.)

[13] International Finance Corporation. 1996. *Metropolitan Waterworks and Sewerage System (MWSS) Preliminary Information for Interested Bidders.*

[14] E. Weldon and M. Beer. 2000. Manila Water Company (B). Discussion paper for Harvard Business School on effective or ineffective handling of an administrative situation. Harvard Business School. 14 July.

Nepotism was another factor that contributed to the bloated employment figure.

The "Water Crisis"

Operating and sustaining its functions had become a concern for both the MWSS and the national government. Poor service performance and poor financial performance were the two most salient problems. The MWSS was severely challenged in delivering on its mandate: the highest standard of service to its growing number of customers.

A looming 'water crisis' was how then President Fidel Ramos[15] described the situation in Metro Manila. The impending water crisis was what pushed the national government to focus on the need for an improved water and sewerage service in the metropolitan area. With no less than the President providing the impetus for a complete transformation of the water utilities sector, MWSS' shift to PPP became one of the flagship projects of the Ramos administration.

Inspired by the economic gains in a maturing democracy in the 1990s, the PPP project became the reform agenda for water and wastewater services to keep pace with the growing economy and population. To stay competitive with its Association of Southeast Asian Nations peers, it was necessary to raise the basic infrastructure to a level that could cope with increased foreign investments. The transformation of Metro Manila's water sector through PPP became part of the Ramos administration's much larger national vision for the Philippines – to reach the status of "Newly-Industrialized Country."

[15] President of the Republic of the Philippines; 1992-1996.

PART II

CORPORATE TRANSFORMATION: FROM PUBLIC TO PRIVATE

CHAPTER THREE

THE PPP THROUGH A CONCESSION FRAMEWORK

THE INTRODUCTION of the PPP and the National Water Crisis Act (NWCA) in 1995 paved the way for a truly world class water service delivery.

Employing the PPP model in major government facilities was initiated during the time of President Corazon Aquino.[16] When President Fidel Ramos took over the country's leadership from President Aquino, he broadened the PPP program to include critical infrastructures. He continued two bold and revolutionary moves initiated by the Aquino administration to address the infrastructure bottlenecks in the country: 1) the Build-Operate-Transfer (BOT) Law (Republic Act No. 6957, which was enacted in 1990), and 2) the Telecom Deregulation Law (Republic Act No. 7925, the Public Telecommunications Policy Act of 1995).

The BOT Law provided the key framework by which the Philippine government initiated contractual arrangements under the PPP program. With BOT, the government was able to establish a partnership with the private sector in infrastructure provision and development.[17] With the partnership, the private sector is responsible for the design, financing, construction, operation and management

[16] President of the Republic of the Philippines; 1986-1992. Raul V. Fabella. 2006. The Privatization of the Metropolitan Waterworks and Sewerage System: How and Why It Was Won. The Asia Foundation. Chapter 4. (Accessed 19 September 2012.)

[17] G. Llanto. 2008. A Review of Build-Operate-Transfer for Infrastructure Development: Some Lessons for Policy Reform. Philippine Institute for Development Studies. Discussion Paper Series No. 2008-25. http://www.eaber.org/sites/default/files/documents/PIDS_Llanto_2008_02.pdf (Accessed 9 September 2013.)

of the infrastructure facility, and after a specified concession period, ownership of the facility will be transferred to the government.[18] The private sector assumes long-term risks of financing and managing the BOT project in exchange for a reasonable market-based return allowed for them to recover their investments.

The BOT Law addressed the power crisis, which at that time was hampering productivity with 10- to 12-hour "brownouts" or power outages. The Telecom Deregulation Law, on the other hand, paved the way for the installation of millions of phone lines to households all over the country. Most especially, it gave birth to the whole mobile phone revolution.

These milestones under the administration of President Ramos clearly reflected his vision and leadership. Without a doubt, these two bold moves made a significant difference at a time when the Philippines' economic growth became stagnant while other Asian countries around it were growing at a much faster rate.

President Ramos saw that if the looming water crisis in Metro Manila was not addressed, the whole economic sustainability of the country would be at risk. Without a dynamic and solid infrastructure to support water service, it would be impossible to sustain any economic gains.

It was in 1994 when the government became open to the concept of PPP through a concession for the water sector. It was actually a confluence of significant factors that led to the initiation of the reform agenda – the right people advocating the right ideas at the right time. The Ramos administration then embarked on one of the country's major reforms in order to reach a "Newly-Industrialized Country" status by 2000. Mustering the needed social and political support, President Ramos was able to engage the private sector in addressing the impending water crisis through the passage of the National Water Crisis Act (NWCA).

The NWCA sought the involvement of the private sector to provide financial resources and operational know-how to turn around the years of underinvestment and inefficiency in Metro Manila's water sector. The NWCA gave the government the platform to

[18] Republic Act No. 6957. An Act Authorizing the Financing, Construction, Operation and Maintenance of Infrastructure Projects by the Private Sector, and for Other Purposes. 9 July 1990. Section 2 (a).

MANILA WATER'S SERVICE AREA
The Metro Manila East Zone

Source:
Manila Water Company

improve and expand water availability and coverage by inviting the private sector to invest in the operations of the MWSS. Two 25-year concessions were bid out - the East Zone and the West Zone. Dividing the service area further helped facilitate negotiations for the concession contracts and provide objective criteria for performance evaluation of the two concessionaires. This approach was similar to that of Paris and Jakarta where both the French and Indonesian governments split their respective areas to serve each half of their cities.[19] Additionally, the concession would provide the government the capability to retain ownership of the MWSS and select a private partner through a competitive bidding process.[20]

1997 Regulatory Reform: The National Water Crisis Act

In 1995, through the efforts of the Ramos administration and with the support of the 9th Congress, the NWCA was introduced and

[19] Mark Dumol. 2000. *The Manila Water Concession. A Key Government Officials Diary of the World's Largest Water Privatization.* World Bank, Directions in Development. (Accessed 19 October 2012.)

[20] Mark Dumol. 2000.

passed. The NWCA of 1995 or Republic Act 8041, provided the legal framework for PPP reform that addressed the looming water crisis.

Under the NWCA, the government, through the MWSS, was empowered to adopt measures that will improve efficiency of water service delivery, as well as expand current coverage. The NWCA provided the mandate for the MWSS management and Board of Directors to introduce and look at several forms of PPP, and how these can help transform current services. The Act had three objectives: improve delivery of water and wastewater services to existing customers, increase operating efficiency, and expand service coverage.

A key provision in the NWCA was the authority given to the President of the Philippines to negotiate contracts for the water sector. This provision is important because it paved the way for MWSS to improve its service using PPP. Mark Dumol emphasized it in his book: "*the law gave the President the authority to privatize MWSS according to the process that the government deemed necessary and allowed for the re-organization of MWSS*."[21]

Another important feature of the NWCA is that it criminalized water theft.[22] Specifically, the Act declared unlawful for any person to *"Tap, make, or cause to be made any connection with water lines without prior authority or consent from the water utility concerned; Tamper, install or use tampered water meters, sticks, magnets, reversing water meters, shortening of vane wheels and other devices to steal water or interfere with accurate registry or metering of water usage, or otherwise result in its diversion in a manner whereby water is stolen or wasted; Use or receive the direct benefit of water service with knowledge that diversion, tampering, or illegal connection existed at the time of that use, or that the use or receipt was otherwise without the authorization of the water utility; Steal water for profit or sale."*[23] The passage of the Act was very timely as it was able to curb what was becoming a rampant problem where water theft became a sure means for easy money for many customers of MWSS (i.e., a very easy way for many to skip paying their dues and/or making some money through illegal vending).

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[21] Mark Dumol. 2000.

[22] Republic Act (RA) No. 8041, An Act To Address The National Water Crisis and For Other Purposes. Section 8.

[23] RA No. 8041. Sec. 8 (d), (e), (f), (h).

CHAPTER FOUR

THE CONCESSION AGREEMENT

TO IMPROVE and expand the availability and coverage of water in Metro Manila, the government initiated reforms of water services through the implementation of the public-private partnership (PPP). The government looked at several forms of PPP and saw that the concession model is ideal for the metropolitan area. The private sector was then invited to invest in the operations of the MWSS. Two 25-year concessions were auctioned with the PPP arrangements administered by concession agreements signed by the government and the winning bidders for the two zones – the East Zone and the West Zone.

Manila Water Company, Inc. for the East Zone

In 1997, two concession contracts for the eastern and western parts of Metro Manila were awarded to the private sector. Through a very stringent and transparent bidding process, the Ayala-led Manila Water Company, Inc. won the concession for the East Zone, while the Maynilad Water Services, Inc. (Maynilad) won the concession for the West Zone. Manila Water was a joint venture among three business groups: Ayala Corporation, Bechtel Enterprises Inc., and United Utilities. Mitsubishi joined the venture in the latter part of 1997.

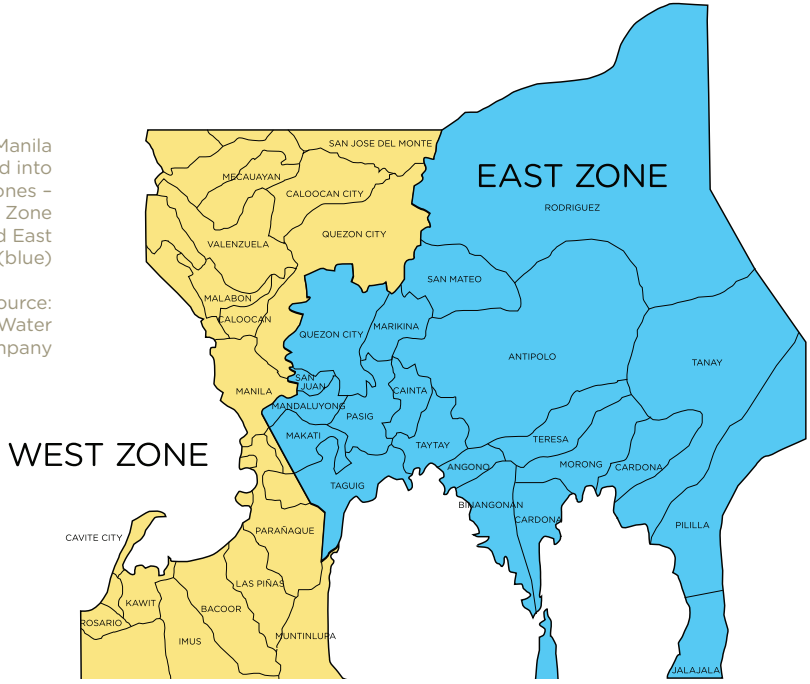
The concession agreement granted exclusive rights to Manila Water "...to manage, operate, repair, decommission and refurbish the facilities in the Service Area, including the right to bill and collect for water and sewerage services supplied..."[24]

[24] Section 6.5.1 (i) of the Concession Agreement, 1997.

Key Features of the Concession Agreement

As the concessionaire of the MWSS for Metro Manila's East Zone, Manila Water, upon assumption of the concession, provides water and wastewater services to over 6 million customers in 23 cities and municipalities of eastern Metro Manila and Rizal Province. The East Zone includes Pasig, San Juan, Mandaluyong, Makati, Marikina, Taguig, Pateros, parts of Manila and Quezon City, and the Province of Rizal.

The concession is governed by a contractual agreement. Under the contract, the concessionaire (a private entity) will operate the water service utility. Through this agreement, the government gives the authority to the concessionaires to use existing systems and to collect and own revenues from water tariffs. It is expected from the concessionaire, however, to have responsibility over operational costs and investments. On the other hand, the government (the MWSS) remains the owner of the water utility – its asset base and all additional assets invested by the concessionaires that will be turned over at the end of the concession period. The concessionaires shall be the agents and operators of the MWSS in their respective zones. They shall be responsible for the operation and maintenance of the water assets, as well as additional investments to improve



Metro Manila divided into two zones – West Zone (yellow) and East Zone (blue)

Source: Manila Water Company

and expand services. As the agents and operators of the MWSS, the concessionaires will absorb market risks, debt financing, and capital investment risks.

The setup within the concession agreement is a concrete example of corporatizing public sector utility. One of the lessons learned from water sector good practices is the idea that 'well functioning public utilities throughout the world indicate that a corporate approach to water supply – but not necessarily private ownership – is essential to reliable, efficient and equitable operations.'[25] Corporatization is a process that provides water utilities the mechanisms to become more efficient and financially independent with the adoption of corporate practices. Regulations will help strengthen and improve water utilities so that their reliance to government will be reduced. And since corporatization allows these utilities to enjoy autonomy and accountability in their operations, they become accountable to the public, which in turn, ensures financial sustainability of water systems and protection of water resources. Initiating PPP in the water utility of Metro Manila, therefore, ensures that the corporate approach is established.

"Regulation by Contract"

To maintain a sustainable structure for a world-class standard for water and wastewater services for Metro Manila, there is a need to ensure a balance between the interests of the consumers and the operators. Experience in the Philippines, however, indicated otherwise. The balance of interests was not easy to come by with regulatory regimes suffering from weak regulatory capacity. In order to avoid the same tendencies to repeat in the new contracts, the concession agreement adopted a "regulation by contract"[26] framework. This framework laid down in a clear and detailed manner within the contracts the activities that would be regulated by an independent agency.

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[25] ADB. 2010. *Every Drop Counts. Learning from Good Practices in Eight Asian Cities. Manila.*

[26] To ensure that performance of the concessionaires is effectively regulated, the Concession Agreement provides for the creation of the MWSS Regulatory Office tasked to monitor and assess based on a pre-defined set of Key Performance Indicators (KPI) and Business Efficiency Measures (BEM). This also ensures equitable tariff rates to the public.

For a concession to become dynamic, it needs to have a regulatory system that is separate from the concessionaire and the policy-making body. There are specific roles and responsibilities for each: (i) the asset owner, (ii) the regulating body, and (iii) the policy maker. In an ideal set-up, there is a clear division among the three. Unfortunately, this was not the case under the existing MWSS set-up. Mark Dumol explained in his book that this was mainly due to the tight schedule to bid out the concessions, as well as the limitations in the existing laws.[27] Without a doubt, it was the ingenuity adopted by the Ramos administration that provided the means to make things happen. Coupled by strong political will, the whole MWSS PPP was made possible.

The concession, therefore, provided the creation of a regulating body tasked to monitor and assess the concessionaires' performance based on pre-determined standards consisting of the service obligations of the concessionaires to the public. It also formed the basis by which the investments of the concessionaires will be assessed. In 1997, a report was produced by the National Economic Research Associates (NERA) in London, which provided guidelines to the Regulatory Office on how it would discharge its responsibilities under the concession agreement.[28]

Guided by the "regulation by contract" framework, the concession agreement features key provisions that included full cost recovery using mechanisms to adjust tariff rates, performance-based concession, and dispute resolution via arbitration, among others.

TARIFF SETTING UNDER THE CONCESSION AGREEMENT

As the concessionaire, Manila Water exercises the right to bill and collect for water and wastewater services within its service area. The contract provides for full cost recovery by way of tariff-setting mechanisms. Water service provision is a long-term, capital-intensive business. As in any business venture, there is a need for investors to be assured of a reasonable, market-based return over the length of time they are allowed to recover their investments.

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[27] Mark Dumol. 2000.

[28] National Economic Research Associates Economic Consultants (NERA). 1997. *A Guide to the Metropolitan Waterworks and Sewerage System Concession Agreements.* A Report to the Board of Trustees Prepared by NERA.

The concession agreement provides a clear and objective mechanism for tariff setting. It is formula-based. Hence, it limits the discretion of both the regulators and politicians. According to the contract, the concessionaires are entitled to recover costs incurred in operations, maintenance and additional investments in the network, the payment of Concession Fees, and a market-based real rate of return. A rate rebasing exercise is undertaken every five years for tariff setting.

Additionally, the contract has set a Rates Adjustment Limit (RAL) or cap to allow for adjustment from time to time. Under the contract, the concessionaire is entitled to adjust its rates to cover currency fluctuations and inflation – annually for the consumer price index (CPI) and quarterly for foreign exchange (FX).

PERFORMANCE-BASED CONCESSION

The concession agreement is also one that is performance-based. It outlines the concessionaires' service obligations and has set specific water and wastewater service coverage targets per city/municipality. Article 5 of the concession agreement sets out the concessionaires' service obligations. Sections in the article deal with general service obligations regarding the provision of water services and sewerage services, as well as the customer service standards which the concessionaires must follow. On the provision of piped water supply, for example, the concession agreement stipulates, *"The Concessionaire shall offer water supply services to all existing customers in the Service Area on the Commencement Date and, in addition, the Concessionaire shall make at least sufficient connections (net of any disconnections) to meet the coverage target percentages of the population in the designated municipality at the time of the target (excluding users who obtain water from a legal source other than the MWSS system) set out in Schedule 2 hereto by the dates specified in that Schedule."*[29] Clearly, the concessionaires are therefore required to offer water supply services to all their "existing customers"[30] – any of the customers of MWSS at the time of the signing of the concession

[29] Section 5.1.1 of the Concession Agreement.

[30] Article 1 of the Concession Agreement.

agreement, and thereafter, those customers served that are within the Service Area.

The concession is thus based on outcome, with the concessionaires required to achieve service and efficiency targets. Under the contract, incentives and penalties can be given or imposed based on the concessionaires' performance. The concession ensures that results are achieved according to what was agreed upon.[31]

The performance-based concession made sure that Manila Water was able to "make things happen." Manila Water attributed their success to three drivers: regulatory pressure, business viability, and leadership focus.

First, there is regulatory pressure from the concession, which became significant because it provided for an increased rate rebasing process but with a stringent measurement of performance. Manila Water was able to embrace the Key Performance Indicators (KPIs) and cascade these to the organization.

Second, Manila Water is, first and foremost, a business-oriented entity wherein the company invests and gets capital from outside sources. Manila Water would want to ensure that these investments would have good returns so that business viability will be assured. There is therefore a desire to improve performance. Although there was initial loss during the first two years, Manila Water was able to strengthen its capacity with higher billed volume, reduced NRW, and become a listed company.

Third, Manila Water was able to "make things happen" through leadership focus and organizational change. Manila Water established a total management system (TMS) with the key performance indicators and business efficiency measures (KPI+BEM) as a subset of the system. The KPIs ensured that the company and each of the employees became accountable for results. The employees performed based on key result areas, and each time a target is reached, there is a corresponding incentive.

All three drivers contribute to ensure that Manila Water perform well and become successful in transforming the once ailing utility to one of the major players in the Asian market.

[31] See Annex 1.

DISPUTE RESOLUTION VIA ARBITRATION

Disputes between the concessionaire and the MWSS Regulatory Office are to be resolved via arbitration. An 'Appeals Panel,' created under the concession agreement composed of three persons, has the authority to make binding decisions. According to the agreement, the Appeals Panel will be established with members appointed outside the MWSS or the concessionaire. Members will be nominated by the regulator, another by the concessionaire, and the third by two arbitrators from a list of accredited arbitrators for minor disputes or the President of the International Chamber of Commerce (ICC) for major disputes.

In 1998, Manila Water submitted a petition for application for an Extraordinary Price Adjustment (EPA).[32] The decision authorizing Manila Water to increase its water rate (handed down by the appeals panel) was granted by the MWSS Board after seemingly endless documentation work and testimonies. The appeals panel upheld four of the issues raised by Manila Water in their petition: the adoption of a market-based appropriate discount rate (ADR), the recovery of the bid and salary cost discrepancy, the reimbursement of El Niño operating costs, and an additional claim on foreign exchange losses. The decision was able to resolve fundamental issues that would make the implementation of the concession agreement move forward. The case was a regulatory risk that was successfully mitigated through the arbitration process.

EMPLOYEE-RELATED MATTERS

The decision to utilize PPP is primarily to raise the quality and reliability of the service to the customers. Essentially, in order to upgrade the level of service provided, there was a need to turn the situation around and produce excellent employees from the existing pool within MWSS. Pursuant to the provisions in the concession agreement, Manila Water absorbed approximately 40% of those former MWSS employees who did not opt for retirement. This equaled to about 2,200 employees servicing the East Zone. These employees would be under probationary status (for 6 months).

[32] Arbitration No. UNC24/HGN/OL Between Manila Water Company, Inc. and Metropolitan Waterworks and Sewerage System and the Regulatory Office. Final Award.

Managing a large number of former MWSS employees was a major challenge for Manila Water.

A very important dimension in the implementation of this PPP was a change management program spearheaded by Manila Water. In this program, former MWSS employees absorbed became a crucial element in the transformation that eventually led to the organization and company's ensuing success.

OTHER FEATURES

The concession agreement also includes debt servicing of MWSS loans, a major PPP benefit that significantly reduced government obligations. The contract stipulates that the long-term debt of the MWSS will be retained and to be serviced by the concessionaires through the concession fee.[33] The concession fee (i.e., debt service – 90%, and MWSS operating budget – 10%) was divided between Manila Water and Maynilad Water Services, Inc. Manila Water absorbed that amounting to nearly a billion pesos and was able to service this debt in 15 years.

[33] International Finance Corporation. 1996. *Metropolitan Waterworks and Sewerage System (MWSS): Preliminary Information for Pre-Qualified Bidders*. Recommendations Approved by MWSS Board. Manila.

CHAPTER FIVE

ADDRESSING THE SUPPLY SHOCKS AND MANAGING RISKS

OPERATING AND managing the concession was an enormous task. It was difficult to identify which of the many competing challenges should be given priority. Manila Water inherited an ailing water utility service saddled with an enormous debt. The first few years of the concession, admittedly, were full of challenges, both internal and external in nature.

Asian Financial Crisis in 1997

External forces such as the prevailing economic conditions at that time made the take-over even more challenging. The Asian Financial Crisis in 1997 made it doubly hard for Manila Water to obtain additional funds to jump-start implementation of programs necessary to improve the service.

The collapse of the Philippine currency saw the peso drop from P26.40 in 1995 to $1 to a low of P46.55 at the time of bid. The almost 100% slide of the Philippine peso affected purchasing power, which in turn, reflected on operational costs and capital expenses. For Manila Water, every P1 drop was equivalent to an additional P10 million worth of expenses. The P459.42 million operating costs and expenses incurred from August to December 1997, at P46.55 per dollar, should have been P260.55 million, had the Philippine currency stayed at P26.40 per dollar (1995). That's almost P200 million difference. And for every 1% increase in the interest rate meant P20 million that need to be added to investments. Debt servicing of legacy debts, which were denominated in foreign currency, doubled as a result of the devaluation.

El Niño in 1998

The situation hit its tipping point in 1998 when a severe drought – the El Niño phenomenon – seriously affected the country. The unusually prolonged dry season left majority of the residents without water supply for a long time – from mid 1997 until September 1998. Water supply and allocation were reduced to 35% and supply for irrigation was completely stopped. The average monthly supply requirements during that time were more than 1,500MLD; however, Manila Water was allocated with 1,296 MLD only. The drought drastically reduced the amount of water that Manila Water could sell. In response to this crisis, Manila Water rehabilitated deep wells, drilled 20 more, and rationed water to households via water tankers. These emergency measures radically increased operational costs way over budgeted levels.

Despite efforts of Manila Water to provide temporary relief to its customers, it still had to deal with very irate customers who, understandably, were expecting service improvement right after privatization. This came as no surprise given the gross service inefficiencies of past decades.

Employee-Related Matters: Managing the Former MWSS Employees

The concession agreement provides that Manila Water had to absorb some 2,200 former MWSS employees, with Maynilad absorbing the remaining MWSS employees. They accounted for 90% of Manila Water's workforce when the concession started. Transformation of the workforce that Manila Water inherited was crucial in that it was the driving force by which the success of the PPP initiative would be achieved. The same employees (former MWSS employees) were absorbed into the new organizational structure. Unless the employees themselves accept their role in the transformation, the development programs provided would not be able to bring about lasting improvements.[34] Old paradigms had to be revisited and transformed with the help of structured management based on the private sector system.

[34] Food and Agriculture Organization of the United Nations (FAO). *COMMUNICATION a key to human development.* www.fao.org/docrep/t1815e/t1815e01.htm (accessed 17 June 2013).

With proper training and motivation, Manila Water was able to produce skilled, dedicated and talented employees.

Improving "the way to do things" was top priority if Manila Water was to survive its first few years. Manila Water knew that the government-style of employee orientation that had spread in MWSS had to be replaced with a corporate/ private sector mind-set. A radical shift in focus was engendered - from simply following procedures to creating and being accountable for results. The highly political culture had to be replaced by meritocracy. Employees had to take responsibility for their actions. Many of Manila Water employees grappled with the new structure and the other changes that came with it. Change was not easy. Still, many welcomed the challenge and even felt that the new structure would provide valuable experience to improve their skills and boost their careers.

By providing the opportunities for personal growth and development, Manila Water was able to bring out and enhance the innate experience and skills that were developed among the MWSS employees throughout many years of dedicated service to the organization. To date, Manila Water continues to reap the fruits of these talent programs.

The MWSS and the national government also made it a lot easier for Manila Water to manage the number of employees they absorbed. A robust employee transition program was put in place to protect them during those uncertain times. MWSS employees were (a) offered an early retirement program; (b) given the opportunity to join the concessionaires – Manila Water in the East Zone or Maynilad in the West; or (c) be retained by the MWSS in its new regulatory capacity. Manila Water and Maynilad were both required to absorb

"I see a big change in the motivation and dedication of the employees...there is a real will to get things done, and that starts at the top."

– CHRIS IGNACIO,
TERRITORY MANAGER

Source: E. Weldon and M. Beer. 2000. Manila Water Company (B). Harvard Business School. 14 July.

all MWSS employees who wanted to work. Manila Water absorbed 2,200 MWSS employees over a six-month period, under probationary status. Also included in the concession agreement were provisions for the non-diminution of compensation and benefits, creation of an Employee Stock Option Plan (ESOP) that ensured regular employees' ownership equal to 6% of the total outstanding capital stock, and the recognition of the existing employee union. Although this arrangement provided a means to soothe stress and worry among the MWSS employees, the change process was managed carefully and with great sensitivity to help the employees adjust to a new organizational structure and work procedures. Management knew that they have to do it in such a way that would make people comfortable with the new setting. "We have to communicate effectively to avoid the shock of culture change," said Filemon Berba, first CEO and President of Manila Water.[35]

"My job has changed a lot. I am expected to make my own decisions about installing valves and diverting water to keep it flowing to the customer. And now I have clear targets for reducing non-revenue water and my salary increase depends on my performance. We are now concerned about the loss. Now we all worry about everything. If I don't protect this company, I won't have a job."

– OSCAR GLEAN, TERRITORY CONTROLLER

Source: E. Weldon and M. Beer. 2000. Manila Water Company (B). Harvard Business School. 14 July.

Defining the Vision

When Manila Water took over the concession in the East Zone, its first task was to define its goals over the next few years – "to become a leader in the provision of water, wastewater and other environmental services which will empower people, protect the environment, and enhance sustainable development."[36] These were communicated broadly and clearly to all in ways that involved their direct participation in the achievement of a shared goal.

Second, Manila Water had to define expected behaviors among its employees that were aligned

35 E. Weldon. 2000. Manila Water Company (B).

36 Manila Water Company, Inc. (MWCI) Vision.

with a dynamic organization focused on performance and the achievement of desired business results.

Third, the entire organization structure was simplified, making it easier for everyone to be customer-oriented. A new mind-set focused on the customer was inculcated among the employees. "The closer we are with our customers, the easier and faster it would be to address their concerns," was a recurring theme that was cascaded throughout the organization. One of the things Manila Water did to be more customer-centric, which also helped in lowering NRW, was the formation of the demand monitoring zones (DMZs), making the areas smaller and easier to manage.

Finally, Manila Water set up an organizational structure that not only enabled the people, but more importantly, empowered them to excel. Programs were initiated to train and help them identify opportunities to improve the service and build business cases which were presented to management for capital funding. Manila Water also introduced an incentive-based/performance-based management, which is one of the major initiatives aimed to corporatize the organization.

With Manila Water's performance, it became the first water and wastewater company to be listed in the Philippine Stock Exchange in 2005. As a listed company, Manila Water is required to comply with the ESO standards. When Manila Water was listed, everybody benefited from the share appreciation, which was a result of the company's good performance. The shares appreciated as a result of the company performing very well. This led to providing bonuses for its well-deserved employees.

All these people initiatives were anchored on the corporate principle of "transformation by empowerment."

PART III

ATTAINING SUSTAINABILITY: THE BUILDING BLOCKS OF CHANGE

CHAPTER SIX

TAP SECRETS: CORPORATE-STYLE GOVERNANCE

IN AUGUST 1997, when Manila Water was awarded the concession for the East Zone, along with the water and wastewater system, the company also inherited its major asset – 2,200 former government employees.

Although the MWSS employees had the experience in handling the water utility, they were poorly equipped and lacked the initiative to achieve the end goal of providing efficient and sufficient water and wastewater services.

While the task was daunting, Manila Water believed that it could transform the water utility and do a 180-degree turn if only it could help its people become more driven and productive. As Manila Water's Chairman, Fernando Zobel de Ayala, once said, the company is in "a mission to fulfill, not a business to run." Thus, people development became the cornerstone for all the programs of Manila Water.

It was very clear that Manila Water needed to invest not only in laying out the pipelines or putting up more infrastructure to improve the once problematic water utility. It also had to invest in "soft" infrastructure that would awaken the "soul" of Manila Water. In no uncertain terms, Manila Water knew it needed to invest in its people.

Manila Water's strategy was simple and replicable. It applied people management principles that have been in the business for centuries. The Ayala corporate strategy and management style[37]

[37] For Ayala Corporation Mission Statement, Corporate Credo and Corporate Values, see Annex 2.

was introduced to the organization, improved, and enhanced across time. Along with a change in corporate values, it was clear that the company needed to build a strong organization in order to build a strong water utility.

Since the majority of Manila Water's workforce was comprised of MWSS employees, management focused on introducing the concept of "corporate-style governance," wherein there was a shift from government to a private mind-set combined with skills development. The corporate style of governance was characterized by these elements – focused goals and drivers of efficiency, service-orientation, transparency, accountability and measurement of results, organization and teamwork, and building talent and shared responsibility for sustainable development.

Having decided that the human resource was its most valuable asset, Manila Water adopted this model of change and targeted three integral components: leadership, people and resources, and structure and processes.

Change by empowerment was a vital element of transformation. It was a change where leadership at all levels was encouraged, expected and supported. While top management provided direction, strategies and plans, the mid-level staff and managers who were most knowledgeable of their respective roles were given free rein to plan and implement changes. Responsibility for bigger projects was handed out. Decision-making was devolved to the lowest levels. The skills-based workforce was transformed into a knowledge-based one. Cross-functional teams called "clusters" were organized with the prime role of assisting management in formulating key decisions and policies that provide solutions to corporate issues.

Manila Water ensured that everyone in the organization was involved and engaged in the achievement of goals. Employees who were procedure-oriented were refocused to become results-oriented. The erstwhile highly political culture was overhauled. The whole organization – strategy, structure, people, process and rewards – revolved around a three-pronged "mantra" – customer focus, service orientation, and business results.[38]

This meant that everyone had to take responsibility and accountability for the results of their work. A former MWSS

[38] E. Weldon. 2000. Manila Water Company (B).

employee shared how taking responsibility of the results of his work became not only his pride but also his son's. From a former rank-and-file position where the major decision he made was when to change the lightbulb in his office, he now handles a zone wherein he had to deal with issues and make decisions to further improve water service delivery in his area. His son would now boast of his father's position of manager/supervisor in the company to his friends and colleagues.

Manila Water went out and did what it set out to do – to transform a once ailing water utility into a thriving and highly successful service organization. The building blocks that would become the roadmap for the success of the company were straightforward – Enable. Empower. Excel.

CHAPTER SEVEN

TAP SECRET 1: ENABLE

> Productivity is, above all, an attitude of mind. It seeks to continually improve what already exists. It is based on the belief that one can do things better today than yesterday, and better tomorrow than today.
>
> – Asian Productivity Organization

ENABLING MANILA Water's people to accomplish what they have targeted to do and providing them the tools to do so were the first order of the day. When Manila Water took over, the company inherited over 2,200 former government employees, aged 45 to 55. The profile was characterized by (a) low productivity, (b) highly educated managerial pool but poorly compensated, (c) with limited capacity to manage operations 'like a business,' and (d) employees who were concerned about job security under a privatized setup. Clearly, there was a need to introduce a new mind-set – the corporate style of governance – where there is shared responsibility for sustainable development across all levels of the organization.

As the employees were the key driving force, it was evident that Manila Water needed to start its transformation internally – within the people. Manila Water was able to identify specific programs that "enabled" its people to achieve the goals that the company had set out to accomplish.

The Ayala Brand of Leadership

As the Ayala-led concession, Manila Water brought its own brand of doing business – the Ayala brand of leadership that was well known within the Philippine corporate world. The brand includes a value system that the Ayala group of companies is well known for –

high quality products, long-term vision, solid contribution to national development, and very good people management skills.[39]

Team Orientation

Manila Water adopted a style that was managed by consensus at the top management, at the middle management level, and down to the rank-and-file employees who had direct contact with the customers. The company espoused teamwork in all functional areas and levels of the organization.

Management knew that in order to have a formidable team at the helm of Manila Water, it had to harness the experience and skills of the existing employees, while infusing the organization with new talents that would be taught and trained in "the Manila Water way" – core values that include commitment to customer service, commitment to quality, people development, continuous improvement, teamwork, loyalty, judicious use of scarce resources, and leadership. The organization acquired a new breed of change agents who inculcated a system based on high-quality production, long-term vision, contribution to national development, and very good and strong people management skills.

With the old, Manila Water developed and upgraded what it already had – years of experience in handling the water utility, as well as familiarity with the customers it acquired. With the new, Manila Water introduced the new mind-set for a strong customer-focused mission, as well as train the new blood through a cadetship program.

Combining these elements created a positive force for dynamic and sustainable change. Empowerment became palpable and real to all.

Setting Clear Goals

Out of leadership came directions, strategies, and plans. Goal clarity was imperative. Manila Water was able to set goals that were simple, clear, and easy to adopt. This process hastened the creation of a new mind-set and a new set of behaviors – a value system based on honor and mutual trust between management and employees.

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[39] For Ayala Corporation's Mission, Credo and Corporate Values, see Annex 2.

During the initial years, the company was able to weather several storms with its leaders ably backed by competent staff members who, despite their differences, have worked as a team struggling against tremendous odds. By knowing what works and what didn't work, they enabled the company to increase billed volume by more than 50% and reduce NRW from a high of 60% to 43%. Everybody knew what his or her roles were. The first pitch that was initiated was to recover all the water from the leaks. Very soon everybody was clear on what needed to be done – find the leaks in the various demand monitoring zones (DMZ) by walking the line and have very close, first-name-basis relationships with stakeholders such as the local government units and barangay officials. These people were the ones who can tell where the leaks were, and when and where these leaks recurred. This way, Manila Water was able to drastically cut down leak repair times in the business areas.

Resilience During Tough Times

As Manila Water set clear and simple goals for the organization, it provided the company with the capacity to become resilient during tough times as evidenced by Manila Water's performance during the Asian financial crisis and El Niño in 1997-1998. The set goals became beacons to work toward during challenging times. The goals kept the whole organization focused and inspired; to persevere despite the odds.

Enhancing Focus and Capability

When Manila Water took over the water utility, it saw the need to reinvent its human

"When Manila Water took over the operations of the MWSS, we were immediately upskilled in order for us to cope with the shift in culture from public to private. We were also empowered and encouraged to challenge the systems and processes that we got accustomed to in order to find better ways of doing things. The new setup developed the self-confidence and the innate talents of the employees, which led to significant improvement in the delivery of service to our customers."

– BONNIE TY, MANAGER, SANITATION SERVICES AND SEWER NETWORK MAINTENANCE TECHNICAL SUPPORT SERVICES WASTEWATER DEPARTMENT - EZBO, AND FORMER TERRITORY MANAGER.

resources. An important element in people transformation was the "up-skilling" of the workforce. Manila Water realized that there was a great need to revamp the existing organization especially in terms of the employees accepting greater responsibility. Not only did the company chase after the leaks and decrease NRW, Manila Water also had to re-evaluate and undergo a role evolution. Roughly 300 people, for example, worked for various leak repair crews. With their experience, these crews definitely possessed the most knowledge of the distribution system in the whole organization. Sadly, before PPP, this knowledge was not being tapped except to do the simplest of tasks. With the re-alignment of people in the leak repair crews, Manila Water recorded the highest operating efficiency gains in NRW from 2002 onwards.

Manila Water set out to provide training to members of these crews so they could take on far greater responsibility for all elements of the distribution network. Their skills sets were retooled to enable delivery of higher value-adding services. Roles had to be reinvented.

Meter Readers, whose job was limited to reading and recording monthly water meters only, were up-skilled and transformed into results-oriented staff. To pay tribute to the company's frontliner groups, regular get-togethers were arranged for business areas. "At long last, after so many years, our efforts have been recognized. Thank you very much," was the common sentiment among meter readers who felt neglected and unnoticed before.

New positions and important monikers were created. The territory representatives and territory controllers were born. Over the years, the names of various positions in Manila Water have evolved. Curriculum-based training programs and cross-functional planning sessions that focused on enabling leaders were implemented.

Developing Future Leaders: Cadetship Training Program

The Cadetship Training Program of Manila Water started in 1999 and became its medium to attract fresh talents and inject new life to the workforce. This management development program is an intensive six-month training where fresh graduates and young professionals with potential are immersed in the business. The cadets are trained

to develop the highest level of technical, business and management skills with the goal of cultivating Manila Water's future leaders and managers.

The program consists of two phases – the first phase, which provides a six-month specialized training and work experience; and the second phase, wherein the management trainees undergo a career management program. The latter is a continuing education program for participants who perform well during the training.

One catch phrase that has become a favorite in the organization is ***"walk the line."*** This literally means walking the pipeline on foot and physically seeing the water system conditions in real time. For the cadets, this is the immersion part of the program that gave them the opportunity to check the network distribution system, including each water connection in a district metering area (DMA).[40] This part of the program allows them to hone their skills in identifying problems and connecting directly with Manila Water's customers.

Over the years, Manila Water has seen 21 batches, with over 300 of graduates becoming competent managers performing critical management roles in the organization. Manila Water takes pride in the fact that the graduates have been guided by values of excellence, accountability, integrity, teamwork, and social responsibility during their training program. And these values have manifested in the cadets' performance in the company.

"I have personally witnessed Manila Water's commitment to developing employees. I have undergone several leadership training programs throughout my career in Manila Water. But the Cadetship Training Program was the one that provided me the leadership foundation that equipped me the most when I took on different and bigger roles in the organization. The Cadetship Training Program exposed me to the different operating units and deepened my understanding of the Company's operations.

Now that I'm managing people, I encourage my staff to maximize the development programs that the Company is implementing. These programs will enable them to effectively perform their duties by improving both their technical and leadership competencies."

– KAROLINE C. SANGALANG,
HEAD, FINANCIAL CONTROLLERSHIP DEPARTMENT; AND MEMBER OF THE FIRST BATCH OF THE CADETSHIP TRAINING PROGRAM

[40] The establishment of District Metering Areas (DMAs) is one of the significant approaches adopted by Manila Water for its decentralization policy. The business areas were subdivided into smaller and more manageable territories to allow greater focus on addressing the needs for water supply and demand, non-revenue water (NRW) monitoring and control, and customer concerns. The DMAs are the smallest sub-system in Manila Water's area of distribution, with almost 1,700 in number.

First Order of the Day – Create a Safe, Clean and Healthy Work Environment

Part of Manila Water's thrust to enable its people to become better skilled and competent managers and leaders is that the company also has to provide a safe, clean and healthy environment where its people will thrive. Over the years, Manila Water committed to operate its business in such a way as to provide a healthy environment where its people would be safeguarded from unnecessary occupational risks.

The first formal change that was initiated in the company was the "5S Good Housekeeping" Program.[41] The *5S,* which came from five Japanese words – *seiri, seiton, seiso, seiketsu,* and *shitsuke* – was translated to mean Sorting, Sweeping, Standardizing, Systematizing, and Self-Discipline in the workplace. It was the change management program that has become a popular mantra among the Manila Water employees as a corporate principle that ensures safe, clean and quality office environment for all.

[41] The 5S goes back to the 16th century during the time of the Venice shipbuilders, when workers applied quality process production to streamline the assembly process. They were able to build ships in a matter of hours instead of days or weeks. After World War II, Toyota used the process and formed the 5S methodology or the Total Production System (TPS). The Japanese 5S provided employees with importance and every job essential to the process and end product. As a result, waste was minimized and workspace became organized that led to timely outcomes.

Corporate Social Responsibility (CSR): Partnering Toward Sustainability

Under the concession agreement, the need for partnership and shared accountability was among the major components that the concessionaires and MWSS have agreed upon. Within the framework of the concession agreement, Manila Water, as concessionaire, is continually assessed based on indicators that directly affect the quality of service to the customers and to the public in general.

The ultimate goal was to create and implement a business model or framework that links all aspects of its operations to sustainability. Ultimately, the very core that drives the success of Manila Water is a "shared commitment among all stakeholders to provide better services for customers not only today, but also for generations to come."[42] A media practitioner would confirm that Manila Water has been selfless in their CSR role and support in various outreach and socio-civic activities. The company walks an extra mile in reaching out and providing solutions to concerns relating to availability and affordability of water as well as to customer service.

As answer to the need for sustainable water access for marginalized communities, Manila Water created an additional CSR arm to reach out to the poorest of the poor outside the concession area that still has no water connection. The Manila Water Foundation aims to enable change for base of the pyramid (BOP) communities by focusing on water supply and sanitation, water and environmental education, and community assistance and livelihood.

"Being in the broadcast media, I can personally attest how Manila Water manifested their thrust and effort for public service. They really do walk an extra mile in reaching out and giving solutions to concerns such as water availability, affordability and customer service. The constant repair and rehabilitation and pipe-laying for the future, even to a common 'masa' is Manila Water understandably working for the next generation."

- SALVADOR "BUDDY" OBERAS, NEWS MANAGER, DZXL RMN MANILA RADIO

[42] MWCI. 2013. *Partnering Towards Sustainability. Rate Rebasing Investment Plan: Charging Year 2013.* Volume 1, Main Report.


For Sale

CHAPTER EIGHT

TAP SECRET 2: EMPOWER

> Employees prove to be the key driving force in our transformation toward excellence and empowered leadership.
>
> – Manila Water

EMPLOYEE EMPOWERMENT became real with the adoption of decentralized operations. Reinventing its core asset – the human resources – has become intrinsic to Manila Water's DNA.

Setting clear goals defined what Manila Water intended to accomplish and how the organization can get there. Goal-setting became strongly linked with clearly defined roles, deliverables, accountability for results, and rewards. Everyone became responsible for the mission – a strong customer-focused mission where there is high customer satisfaction.

Decentralization: Territory Managers

The empowerment strategy drove Manila Water to bring management on the ground through the creation of a decentralized territory management scheme. This strengthened community relations and customer management.

Operations in the old MWSS was very centralized. Targets were set at the corporate level rather than in smaller units; hence, those working in lower levels received few, if at all, information particularly on performance on the district and division levels. There were serious flaws in communicating and coordinating across the organization as evidenced by customer service personnel having no information whatsoever on meter reading and customer billing. As a result, branch offices and customer service personnel were not able to provide sufficient answers to customers on their bills. In addition, decisions required several levels of approvals. It was clearly a bureaucracy surrounded by red tape.

"I have been with the water supply industry for the last 32 years, including my years of service in MWSS. I started as backroom support personnel and later became chief accountant for Manila Water under the Finance Group. The big change came along when I was pulled out and appointed to head the Logistics Department in October 2004. The tasks were huge and challenging. Nevertheless, I strongly felt the trust and confidence bestowed upon me by the management. I was empowered. This empowerment, coupled by consistent good leadership from the top and clear vision motivated me to do my best. I was transformed – from working at the backroom to being at the forefront.

Using my financial management experience, backed by a strong quest for integrity, I worked towards synchronizing the projects materials requirement, inventory management, procurement and vendor management and development. The work was susceptible to corruption, but I never entertained any attempt of bribery.

The contribution of the Logistics Department to the increase in billed volume up to the 1100 MLD level and reduction of non-revenue water to 11% is a source of pride. The C2 awards I have received reinforced my self-worth and have been a source of further motivation. Manila Water has truly trained me, and with this solid foundation, I am willing to do my best at any given task to ensure positive quality results for the company."

– MARILOU BAGO, HEAD, LOGISTICS DEPARTMENT; AND CONSISTENT C2 AWARDEE

Part of Manila Water's management policy was to divide the East Zone into eight business areas – Balara, Cubao, San Juan and/or Mandaluyong, Taguig and/or Pateros, Makati, Rizal (Antipolo), Pasig, and Marikina. These business areas were further subdivided into smaller and more manageable territorial boundaries (business zones). As of date, Manila Water has 8 Business Areas, 36 Supply Zones, and 258 Demand Monitoring Zones (DMZs).[43] The DMZs were further subdivided into much smaller areas called the District Metering Areas (DMAs). There are almost 1,700 DMAs servicing more than 1,000 connections each. A territory team has the authority to oversee and address the needs of each zone with regards to water supply and demand, monitoring and control of NRW, as well as customer concerns. Each team is also involved with census and survey to determine current and project water demand, optimization of revenue, management of key accounts, and implementation of new development services.

Each territory team's mandate was based on a new system that focused on providing clear and specific targets for key result areas, or what was called the "5 Marbles." According to Manila Water, the number "5" signifies the fingers in each hand – which means that if territory team members can count it in their fingers, they can definitely achieve what they have set out to do.

[43] Manila Water Company, Inc. 2012. *Sustaining The NRW Reduction Strategy: The Manila Water Company Territory Management Concept and Monitoring Tools.* http://www.iwa-waterloss.org/2012/Final_Papers_3/98.pdf (accessed 16 April 2013).

The "5 Marbles" refers to Manila Water's five basic key result areas (KRAs) against which the company monitors its operating goals and results. These five marbles include billed volume (BV), revenue performance and assurance, non-revenue water (NRW), collection efficiency, and after sales and accounts receivable days (AR Days). During the initial years of privatization, the 5 Marbles formed an integral part of the company's management and performance review process. Corporate goals were measured in terms of the 5 Marbles and cascaded down to Territory Managers (TMs) who were responsible for managing the smallest geographical unit of Manila Water's service concession. The performance of the TMs was also benchmarked using the 5 Marbles.

Today, the 5 Marbles is as relevant as it was 16 years ago as it continues to reflect the efficiency gains that the company has achieved over the years. It is not just a TM responsibility but every Manila Water manager's accountability as the company moves toward sustainable and stronger business operations.

The decentralization system is a bottom-up approach that aims to bring Manila Water's service to customers by deploying people directly to where the customers are. This approach enabled Manila Water to make decisions more seamlessly, allowing the company to provide faster response time to customer concerns. Under this new approach, Manila Water was able to focus on the problem directly and provide solutions immediately where most of the losses were found. With the new territory management system, Manila Water increased its customer base from 310,682 in 1997 to 896,148 water service connections in 2012.

The territory management system allowed for minimization of bureaucracy that had been a

5 MARBLES

BILLED VOLUME

The volume of water that passes through all active water meters. Expressed in cubic meters, it is the primary driver of revenue for Manila Water. Billed volume is deeply rooted in the day-to-day activities of every Territory Management Team.

REVENUE PERFORMANCE AND ASSURANCE

Billed volume converted into a particular Peso (P) value. Every cubic meter of water that passes through the customers' meter has an equivalent peso value, depending on the rate classification. From the start of the concession, the East Zone Business Operation (EZBO) had been targeting billed volume growth. But from 2012, EZBO moved from a billed volume focus to a more revenue-targeted mind-set.

5 MARBLES

COLLECTION EFFICIENCY

Each Territory Manager is accountable for the collection in his/her area. Thus, he/she must be aware of the total and current collection as well as the reduction of Accounts Receivable (AR) in his/her territory.

AFTER SALES/CUSTOMER SERVICE

The Territory Manager is expected to personally communicate, coordinate and enhance business relationship with the customers and local government units (LGUs).

NON-REVENUE WATER

With the Technical upskilling program of Manila Water, each of the Territory Manager is provided the capacity to handle one of the most important marbles of the company – non-revenue water (NRW) reduction and management. Every NRW reduction program and project is proposed by the Territory Manager to ensure accountability.

prevalent feature in the previous organization where management was centralized. In the former MWSS organization, all service-related decisions emanated mostly from the main headquarters, which is located in Balara, Quezon City. Today, all decisions related to customer's water and wastewater needs are conceptualized, funded, and implemented directly in the field where Manila Water's frontliners interact daily with the customers.

Leverage Know-How of Ex-MWSS Employees

Programs were initiated that focused on leadership and up-skilling. Functional schools were institutionalized to further enable the technical staff: for strengthening leadership capabilities, there's the Business Zone Leadership School (2007), Leadership Institute for Manila Water Employees or LIFE (2010), Advance Management Development Program or AMDP (2012), and the Management Development Training Program (2011). For the purpose of building and fortifying technical capabilities, Manila Water has the Operations Management (OM) School (2010), and two new schools that were launched in 2013 – the Asset Management School and the Project Management School.

The biggest development by far was the Business Zone Leadership School, which was created to develop well-rounded managers to be at the helm in running Manila Water's operations. The school was established to ensure that incoming Business Zone Managers are equipped with the functional, leadership and core skills that will help them meet their

targets given the dynamic business conditions in the East Zone. The new curriculum, initiated in March 2012, focuses on developing entrepreneurial, people and relationship management, technical operations, and project and financial management among the managers. Graduates of the program are also expected to lead their team in managing relationships with stakeholders and ensuring that their needs are properly attended to.

Manila Water employees were provided with development programs consisting of training programs and seminars that would enhance their potential and make them more effective in functional skills such as quality meter reading and analysis. These programs also helped improve customer relationship management, upon which the new value system was based.

Corporate volunteerism became central to stakeholding initiatives. Manila Water launched several programs that facilitated employee participation in community development. Employees were trained in first aid and equipped for other community assistance efforts, including disaster relief. In addition, Manila Water had annual drives that involved its people in the community.

Finally, Manila Water management created several awards to recognize the achievements of its employees. One such award was the *Huwarang Manggagawa Award*, which was the very first employee recognition program for the exemplary and significant contributions made by Manila Water's rank-and-file employees to their areas.

The very first *Huwarang Manggagawa* Award was given to Wolfredo "Willy" Macasaet, then a water network operations staff. Willy has become one of the icons in Manila Water as well as in the Ayala Group as he became the first The Outstanding Workers of the Republic (TOWER) awardee. Now, Willy is a territory manager at Laguna Water. Recognizing his achievements truly marked the start of a tradition of

Willy Macasaet – first *Huwarang Manggagawa* and TOWER awardee

excellence, commitment and service in the entire organization. Seven more awardees to the *Huwarang Mangagawa* have gone on to win the prestigious TOWER Awards, including two who won at the same time in 2006. These awards put Manila Water in the TOWER awards' 37 year-history record as one of the very few companies to pull off the same feat.

Other awards were later on created for middle and senior management – the President's Pride due to Performance (P3) and the Chairman's Circle (C2), respectively.

Total Management System (TMS): Measuring and Rewarding Performance

Part of the concession agreement is a performance-based component, wherein as concessionaire, Manila Water will be evaluated based on the performance achieved for the water utility. In the same manner, Manila Water adopted the system of incentives-and-performance-based management wherein everyone – from top management to the rank-and-file – is responsible and accountable for results. The Total Management System (TMS) and "meritocracy" – where pay is linked to effective performance, have been adopted. As the people is its biggest asset and partner, Manila Water provided its employees with wages and benefits that respect their contributions that enabled the company to meet its benchmark goal of full customer satisfaction.

Part of Manila Water's corporate DNA is the principle of "pay for performance." If one looks at most of the leading companies, they are more often results-oriented. This is the reason Manila Water wants to link the employees' compensation to the key performance indicators. Each employee has his/her own key result areas.

What Manila Water did was to embrace the system of performance-based results, and then improved and expanded this toward adapting TMS. This system includes all aspects of business. It involves a means for the company to measure its performance for every period. TMS includes corporate goals as well as group goals. Within these groups are departments, and then sections. And then there are the individual employees. TMS, therefore, ensures that the goal setting is aligned from the corporate down to the individual. And when Manila Water meets its goals, or even exceeds them, everybody

benefits from it. That is the corporate goal. That is what Manila Water believes in.

In all performance conversations, Manila Water seeks to align individual goals to corporate goals. The company believed that to engage each employee to deliver discretionary effort to the achievement of stretched goals, employees need to see "what is in it for me." Performance results and competencies gained were aligned with rewards ranging from the extrinsic and palpable ones – merit increases, variable incentives – to the more intrinsic – career movement, recognition for excellent work.

Incentives are based on four components: differentiated merit increase, variable pay, promotions driven by performance and potential, and long-term stock ownership. These components take into account the employees' performance in achieving, as well as exceeding their individual goals. Management recognizes those who have the potential to take greater responsibilities.

The bottom line is to ensure that the overall corporate goals are aligned with the individual goals to achieve success. Manila Water being a listed company proves this. A salient feature of the concession agreement states that 6% of Manila Water's initial shared capital shall be given to MWSS employees who will be absorbed during the concession period. When Manila Water started, share price was equivalent to approximately P1 per share. In 2005, it was P5 per share. As of close of 2012, Manila Water shares are equivalent to P32, and majority of the employees are shareholders.

The "Suki" Program: Expanding Partnerships

One of the more significant steps undertaken by Manila Water to initiate change and empowerment not only among the people but also to extend it to the communities was the establishment of the "Suki" Program. *Suki* is the Filipino term for regular buyers. The *Suki* Program or Vendor Management Program broadened Manila Water's partnership with its suppliers and contractors and service providers. Manila Water has more than 1,000 vendors. Out of the total number, around 15 belong to the Suki Program.

The *Suki* Program started out in 2005 as an innovative and mutually beneficial program to develop businesses for "mom and pop" vendors. It was created to provide better management of the

"My company grew because of Manila Water. MES Construction started as its leak repair contractor and developed from there. We only had one mini-dump truck and an air compressor back then. With the help of Manila Water, however, we now have all the modern equipment needed to make us a competitive construction company. In fact, MES Construction improved from a Philippine Contractors Accreditation Board (PCAB) B-rated organization in 1997 to Triple A-rated at present.

Being a full-time service provider of Manila Water, our company has aped its core values, work culture and business practices. This is because Manila Water has been conscious in honing its relationship with its vendors. It has a lot of programs that effectively improve the service in both directions – Manila Water to its contractor and vice-versa."

– MIKE SICAT,
PRESIDENT, MES CONSTRUCTION

company's contractors and operators. Over the years, the program transformed into a well-entrenched scheme in Manila Water that provided job opportunities as well as ensured smooth and unhampered service delivery.

Following a rigid accreditation process, a number of "suki" vendors were chosen based on their consistent quality performance. Afterwards, Manila Water will then provide (1) financial assistance to build their resources, (2) training in new technologies to improve and update their capacity and quality of workmanship, and (3) guidance to enhance their marketability beyond Manila Water's supply chain. Since the implementation of the *Suki* Program, contractors and suppliers have grown along with the company, and have gone on to become triple-A contractors in the field of water service delivery.

Customer Focus

Another major aspect of extending further Manila Water's empowering programs to its customers is a set of service standards based on the customer-centric mantra – "We care." Manila Water has provided a proactive and responsive style of customer service, which ensures that its people, especially those with direct customer contact, are enabled to deliver quality service. This means consistently addressing customer requests in a timely manner, as well as resolving complaints within 10 days according to mandated regulatory standard. In December 2012, for example, more than 96% of the customer complaints and inquiries were addressed and resolved within 10 days, while more than 93% of the received customer billing complaints were resolved within 10 days.[44]

[44] MWCI. KPI+BEM December 2012 and 2012 Annual Report.

Several initiatives were put in place to further enhance customer responsiveness. One of these was the establishment of a Customer Service Institute that provided Manila Water employees with trainings and modules on delivering quality service.

Another key strategy was the establishment of the Customer Care Center where concerns and complaints are handled through a call center hotline 24/7. Manila Water ensures that its customers receive timely and helpful responses through the Customer Relationship Management system, which logs all requests and keeps track of developments based on the target response time.

To date, Manila Water continues to support its "customer first" orientation with the implementation of a call center hotline that is integrated with the customer relationship management technology platform. Based on the "Very Good" rating that Manila Water got from the PAWS survey,[45] the call center hotline was the choice of the majority of the customers when they want to relay their concerns and expedite solutions.

[45] Public Assessment of Water Services (PAWS) Project was commissioned by the MWSS and done by the University of the Philippines-National Engineering Center (UP-NEC). Year V activities of PAWS began on 21 April 2010 with the objective of reaching out to all the 1,509 barangays – 338 from Manila Water – and conducting consumer survey as a validation of the efforts done by the concessionaire to "retain, if not elevate, the quality of their service."

PART IV

ATTAINING SUSTAINABILITY: THE FRUITS OF CHANGE

CHAPTER NINE

TAP SECRET 3: EXCEL

Pride in Excellence – We strive for excellence because turning out the highest quality products and services is the most fitting tribute to our customers and to society at large, to our company, to our colleagues and to ourselves. This means stretching our performance to levels that match and even exceed our corporate goals.

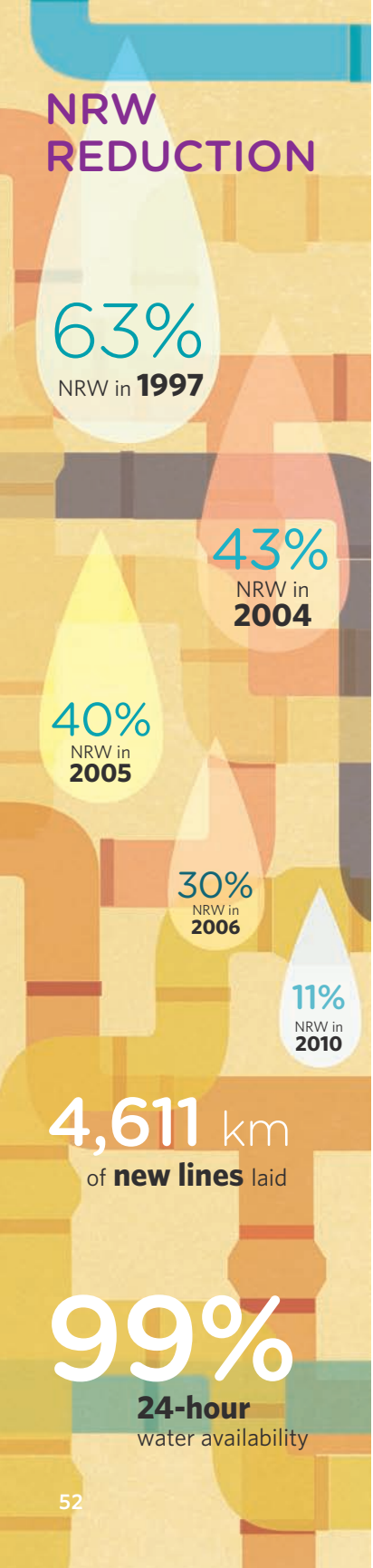
– Ayala Corporation, Corporate Values.

THE MANILA WATER journey toward excellence is a unique story. The fruits the company continues to reap are the results of its beliefs and investment in "pipes and people;" in infrastructure and individuals. It is business with a soul.

Laying pipes and investing in infrastructure – anybody can do that. Manila Water has become known not just as an "Engineering Solution;" but more importantly, as a public service that resulted in the company being recognized as among the world's best in water efficiency. Manila Water was able to reduce NRW and serve more customers. From a high of 63% NRW in 1997, they now have reduced the losses to 11%. That's over 700 MLD of water saved!

Although things were tough in the initial stages, Manila Water feels it has come a long way since. Customer relations have improved. Offices and office settings are now more presentable. The water distribution network has improved immensely. Leaking pipes are being repaired at a rate that is three times faster than before the concession. Service coverage had improved significantly. The rate of NRW decreased tremendously. A big number of illegal connections were eliminated and regularized. Finally, revenues increased.

From a "vicious cycle" characterized by poor service and low coverage, government was unable to increase water tariffs because of customers' unwillingness to pay. Hence, there was poor collection and very low cash flows, with decades of under investment. Manila Water was able to transform that water utility into one that is identified with a "virtuous cycle" – a major feat that was accomplished due to the PPP reform that was initiated by the Ramos administration. Manila Water



was able to expand and provide better quality service, which resulted in satisfied customers who are willing to connect and pay at full cost, and thereby promoting full cost recovery with high collection efficiency and increased investments.

Reduced NRW, Increased Access to 24/7 Water Supplied to Customers

Following the new concept of decentralization and Manila Water's implementation of the Territory Management scheme was the gradual reduction of NRW levels from 63% during the start of the concession, to 43% in 2004, 40% in 2005, 30% in 2006, and finally to an all-time low of 11% in 2010.[46]

NRW level has reached an unprecedented low of 11% since Manila Water started operations in 1997. Considered the biggest system loss reduction in the history of the country, the NRW level even exceeded the regulatory target of 25%. One of Manila Water's Key Performance Indicators + Business Efficiency Measures (KPI+BEMs) is C5: Response to Disruptive Mains Failure (within 24 hours). Through the years, Manila Water has been responding and resolving/repairing all disruptive mains failure (with pipe sizes of 300mm and below) within 24 hours.

With reduced NRW, there was a visible increase in water supplied to customers. This has undoubtedly enabled Manila Water to raise water service to world-class levels and expand the network to provide greater access to 24/7 water supply. This is equivalent to 99% 24-hour coverage, or around 3 times more customers served. This particular "fruit" represents Manila Water's biggest operational achievement to date.

[46] MWCI. 2012.

There was a record reduction of system losses, which was helped by replacing old pipes and laying 4,611 kilometers of new lines.[47] Over the past 15 years, Manila Water has invested a huge chunk to rehabilitation and expansion projects. Due to the company's performance and achievements, financial institutions opened credit lines that helped pave the way for Manila Water's major infrastructure programs, including the completion of the P4.6 billion Rodriguez Water System Project,[48] the biggest by far in the company's history.

Manila Water was able to provide affordable connection fees. In 1997, the cost of the connection fee for a regular water service connection is $160.[49] With the company's operation, the connection fee charge for open communities and low-income communities was $35, wherein only a third of the total connection fee was borne by the customer. In addition, Manila Water provided a 36-month installment program for low-income communities.

On the other hand, soft infrastructure that made NRW reduction possible was established in the communities that Manila Water served. One such example is the creation of the "*Kasangga* System," a project that aimed to complement the 'Tubig Para Sa Barangay' (TPSB) or Water for Low-Income Communities.[50] Manila Water sustained its efforts to bring better and improved water and wastewater services by establishing partners/champions or *kasangga*[51] among the community and barangay leaders who are invited to quarterly gatherings organized by the company. During these gatherings, Manila Water provides updates on its operations in the area and solicits feedback from the community-level leaders. The creation of the *kasangga* system encourages the members of the community to own and, therefore, be directly responsible for the welfare of their area in key issues affecting water supply. At the same time, open communication fosters goodwill between Manila Water and its customers and it allows the company to be more responsive to the needs and concerns of the community.

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47 MWCI. 2012.

48 Also known as the North Rizal Water System Project, this is a joint project of Manila Water and the MWSS. Inaugurated in 2012, the P4.6 billion project will make available reliable potable water to about 1 million people in Rodriguez and San Mateo, Rizal as well as elevated areas in Marikina City.

49 Exchange rate was around P24 = $1.

50 See Annex 4 for more details on Tubig Para Sa Barangay (TPSB) project.

51 Tagalog Translate. http://www.tagalogtranslate.com

In 2009, during the Typhoon Ondoy disaster, Manila Water and its community partners were able to save lives by providing assistance, particularly potable water, to its victims.

Building Communities: Affordable Water

The greatest development that Manila Water was able to undertake was to reduce costs for its marginalized communities, which accounts for the largest portion of the company's customer base.

When Manila Water took over the East Zone, the population then in Metro Manila was rapidly expanding. People were moving from the rural areas to Metro Manila for better and greener pastures. Sadly, development in housing had not kept pace with growth in the urban areas; thus, many lived in slum areas or became informal settlers. These areas were often characterized with inadequate, if not non-existent water and sanitation services. People living in marginalized communities used to get their water supply from vended water sold by containers and jugs from handcarts, deep wells or from other methods that made the quality of water suspect. Illegal connections to the water system became widespread that some households were able to create a monopoly and dictate prices for water. Most of the time, the poor paid up to seven times more per liter of water than those who were connected with the MWSS.

Manila Water then initiated a flagship program called, 'Tubig Para sa Barangay' (TPSB) or Water for Low-Income Communities, which provided quality water to low-income communities at very affordable rates. In the past, one needed to stand in line everyday for water, and then again late at night. This had taken a toll on the residents as more often than not, they needed to devote time as well as resources to water fetching – time that could have been used to pursue other productive activities such as livelihood training.

With the TPSB, the average monthly bill of the customers from the low-income communities was decreased dramatically to $1.67[52] (those consuming 10 m^3). This is equivalent to more than 95% savings with the price of water per cubic meter decreasing from $4 to only $0.20.[53] Thus, Manila Water was able to provide water to over 1.6 million BOP

[52] MWCI. 2012.

[53] MWCI. 2012.

(base-of-the-pyramid) beneficiaries.[54] This number actually accounts for more than half of the increase in the company's customer base. Their day-to-day lives are forever changed.

By providing the marginalized communities access to clean water for their daily needs, water-borne diseases were reduced, thereby contributing to improved and healthy families that no longer devote their time and energy to getting water each day.

High Customer Satisfaction Ratings

As Manila Water embarked on a customer-centered service, all the programs and activities stem from the belief that "the customer is king." A proactive and responsive style of customer service was initiated and a Customer Service Institute was established in 2001. The Institute ensures the development of customer service personnel by providing modules on delivering quality service. The customer base more than doubled from the time Manila Water took over.

Public assessment of the water service has indicated a very good rating for the company. The MWSS has commissioned a Public Assessment of Water Services (PAWS) survey that showed 100% of more than 300 barangays giving an overall Very Good rating – the highest possible rating – to Manila Water for Years 3 to 5 (2008-2010). This is a major accomplishment as it was a first for Manila Water since the PAWS was started in Year 1 (2003), wherein Manila Water got an overall 28% Very Good rating. The company succeeded in getting the highest rating in all three of the major criteria in the survey.

[54] MWCI. 2012.

"Manila Water has never faltered in giving excellent customer service. Whenever we call to report any leak, Manila Water immediately responds and takes action. Its employees have consistently delivered outstanding service to its clients. We are grateful to Manila Water for providing us with reliable water supply. We are now confident and assured of clean potable water."

– ERLINDA BAYLAN,
SAN JUAN RESIDENT

"If we are going to rate Manila Water from 1 to 10, 10 being the highest, we will be rating them a perfect 10. Manila Water has the complete package, from its good water supply delivery to its excellent customer service. The Welfareville community is very pleased with Manila Water."

– VERGILIO DE LA CRUZ,
WELFAREVILLE COMMUNITY PEOPLE'S ORGANIZATION LEADER, MANDALUYONG CITY

RESIDENTIAL AND/OR SEMI-BUSINESS CONSUMER QUESTIONNAIRE

PUBLIC ASSESSMENT OF WATER SERVICES (PAWS) PROJECT PHASE II – YEAR 5

SAMPLE QUESTIONS:

CONCESSIONAIRE'S SERVICE QUALITY ISSUES:

- *Call Center or Business Area*
  Nasubukan mo na ba o ng isa sa inyong kasama sa bahay na tumawag sa call center (hotline) o bumisita sa business center ng Manila Water?
- *Reason for contacting the call center and/or visiting the business center –*
  Ano ang dahilan ng pagtawag ninyo sa call center o pagbisita sa business center?
- *Number of attempts to contact call center –*
  Ilang beses po kayo tumawag sa call center (hotline) bago niyo nakausap ang ahente ng call center?
- *Assessment of call center reception –*
  Naging kasiya-siya at maayos ba ang inyong karanasan sa pagtawag sa call center?
- *Reasons behind dissatisfaction with call center reception –*
  Sa inyong palagay, ano ang dahilan kung bakit hindi nagging kasiya-siya at maayos ang inyong karanasan sa pagtawag sa call center?
- *Waiting time in business center –*
  Gaano kabilis o katagal po kayo naghintay bago ninyo nakausap ang kinatawan ng Manila Water?
- *Assessment of business center reception –*
  Naging kasiya-siya at maayos ba ang inyong karanasan sa pagbibisita sa business center ng Manila Water?
- *Speed of resolution –*
  Mula sa araw na kayo'y nagreklamo, ilang oras, araw o lingo bago nasolusyonan ng Manila Water ang reklamong ito?
- *Effectiveness of response –*
  Gaano ka-epektibo ang nagging solusyon ng Manila Water?

OVERALL SERVICE QUALITY

- *Rating the concessionaire's overall service quality*
  Sa inyong opinyon, paano ang naipakitang paglilingkod ng Manila Water sa paghahatid ng serbisyo sa tubig?

The PAWS Project revisited 338 barangays in the area of Manila Water in Year 5. The results of the survey validated the efforts done by Manila Water to maintain and even further enhance the quality of service provided to its customers. All the *barangays* that were surveyed showed a "Very Good" rating for Consumer-Level Performance and Water Quality categories.[55] The Consumer-Level Performance system is based on the evaluation of consumers on the services provided by Manila Water as concessionaire on three criteria: network quality, water quality, and service quality. Manila Water has been receiving this rating consistently for the past three years particularly for Consumer-Level Performance.

Efficiency in Operations

The state of water service, as well as that of the customer service levels has improved significantly when Manila Water took over the operations of the Manila East Zone. From almost 2 million in 1997, the current population covered by Manila Water has more than tripled, with more than 6 million having been provided clean drinking water.

In addition, access to 24/7 water has increased from 26% of the network in 1997 to an all-time high of 99.6%.[56] As of 2012, 89% of the whole East Zone is covered with water service, as compared to 67% before PPP. (99% of the 89% has 24/7 water supply compared to 26% of 67% in 1996.) NRW was also decreased to 11% from 63%, and Manila Water is now able to provide a ratio of 1.4 staff for every 1,000 connections (Table 2).

TABLE 2: Metro Manila East Zone comparative figures

CITY	POPULATION (MILLION)	24/7 WATER AVAILABILITY (% OF NETWORK)	WATER COVERAGE (% OF POPULATION)	NON-REVENUE WATER (% OF PROD)	STAFF/1000 CONNECTIONS
Metro Manila East (1996)	≈2	26	67	63	9.8
Metro Manila East (2012)	> 6	99	89	11	1.4

Source: Asian Development Bank, 1996. / Manila Water Company, Inc., 2012.

[55] University of the Philippines-National Engineering Center (UP-NEC). 2011. Manila Water Performance Assessment Report. Public Assessment of Water Services (PAWS) Year V Implementation. University of the Philippines, Diliman. 10 August.

[56] MWCI. 2012.

Global Recognition of Performance

Because of its performance, Manila Water received a lot of awards and was recognized not only here in the Philippines, but also internationally.

OPERATING EFFICIENCY

The success Manila Water got from being able to decrease dramatically the Manila East Zone's NRW level reaped for several awards in 2010. Manila Water was recognized as the Water Efficiency Project of the Year through the UK-based publication, Global Water Intelligence. The company was recognized for its multi-pronged approach to NRW management, making Manila Water the world's best in water efficiency as unanimously voted by the global water industry experts.

In the same year, the International Water Association's (IWA) Global Project Innovation Awards also recognized Manila Water for its NRW achievement by declaring the company the winner under the Operations and Management Category.

INTERNATIONAL RECOGNITION ON CORPORATE GOVERNANCE

When Manila Water instituted its Corporate Governance Policy as a means for the organization to achieve the highest standards of corporate governance, the International Finance Corporation (IFC) presented Manila Water with the Client Leadership Award. The award recognized the company's success in upholding sound and effective leadership, as well as promoting sustainable development while achieving commercial success in the water and wastewater industry.

CORPORATE SOCIAL RESPONSIBILITY AND SUSTAINABILITY

In June 2011, Manila Water was cited in "Segmenting The Base of The Pyramid" in the Harvard Business Review, highlighting the company's initiatives to "*...significantly help the base of the pyramid by improving its access to clean, less expensive water, in the process gaining the consumers' thrust through a much-applauded partnership with*

government authorities and local communities where the poorest of the poor reside. This has not only enabled these communities to improve their lives but has also benefited the company's business."[57] The publication praised Manila Water for its socially-based business operations.

Another major award that Manila Water received was being chosen as the Winner of the G20 Challenge on Inclusive Business Innovation for demonstrating Manila Water's viability alongside the provision of economic opportunities and water/wastewater services for the marginalized sector. The award was given by the International Finance Corporation (IFC) at the G20 Leaders Summit in Los Cabos, Mexico in June 2012.

HUMAN CAPITAL MANAGEMENT

In 2011, Manila Water was conferred the Distinction as Best Philippine employer and grand recipient of the Asian Human Capital Award. Bestowed by the Singapore Ministry of Manpower, Manila Water was praised for having outstanding practices in human resource development and management. This is a crowning achievement for Manila Water, as this was the first time a Philippine company received this prestigious recognition. The award confirms Manila Water's status as one of a select group of companies to have successfully implemented innovative people practices that have had a major impact on the organization's success.

Manila Water captured the grand award for harnessing its people to transform the once-struggling utility into a world-class water and wastewater service provider. The company was cited not only for its achievements but also for the way the business has improved by utilizing its human resource.

Manila Water was inducted in the 2012 ProActive Achievement "Hall of Fame" Awards of the Department of Trade and Industry (DTI). Other notable people management awards include 2006 Employer of the Year by the People Management Association of the Philippines; 2007 Best Workplace Practices by the Asian CSR Awards; 2005 and 2007 Best Managed Company by Small Cap Category Asia Money Awards; and 2007 Client Leadership Award by the IFC.

[57] V. Katsuri Rangan, Michael Chu and Djordjija Petkoski. 2011. Harvard Business Review.

ENVIRONMENTAL SUSTAINABILITY

In accordance with the ISO standards and guidelines, Manila Water's major facilities have been ISO certified – quality management (ISO 9001), environmental management (ISO 14001), and occupational health and safety (OHSAS 18001).

Manila Water bagged the award of New Sustainability Champion for the category of Most Environmentally Aware during the World Economic Forum in September 2011. The company was also the only Philippine company and one of just eight in Asia to have been cited in the World Economic Forum's study as one of the top 16 "Most Environmentally Aware" companies in the developing world.

Another prestigious award – the Ecoswitch Award – was given to Manila Water by the Green Philippine Islands of Sustainability (GPIoS), a part of the European Union in the Philippines SWITCH-Asia Programme, recognizing the company's efforts in successfully implementing environmental measures built on the triple bottom line approach. Manila Water also received the Green Coin Award for achieving the most savings from its Ecoprofit and Cleaner Production Implementation. Among the benefits of the program are successfully reducing waste, increasing energy efficiency, and improving health and safety of workers of the company.

Initial Public Offering

The year 2005 was a historical event for Manila Water as the company undertook its initial public offering (IPO), making Manila Water the very first water company to list its shares in the Philippine Stock Exchange (PSE) Composite Index. It turned over 37% of its equity shares to the public with a P799 million share offering at P6.50 per share. The IPO registered record-breaking sales in the international market with 15 times over than the normal subscription, earning Manila Water a place in the global market. Despite the threats of financial crisis and other issues, Manila Water's stock price continued to perform, and the proceeds of which were raised as new equity for the company's capital expansion programs.

Not Just the East Zone – Expanding Beyond

It was the success of Manila Water in the East Zone that paved the way for other business initiatives that have helped the company expand and introduce the best practices that it has acquired from its experience over the years.

In other areas of the Philippines, Manila Water made major acquisitions that introduced the same business model the company has been using since it acquired the water utility in 1997.

Acquisition of Laguna Water paved the way for both local and regional opportunities. Manila Water partnered with the provincial government of Laguna and acquired Laguna Water in 2009. This was the very first acquisition made outside of the East Zone. The 25-year deal created the Laguna AAAWater Corporation with the primary goal of providing water supply to key growth areas in the province of Laguna such as the city of Sta. Rosa and the municipalities of Biñan and Cabuyao. These areas are where several international businesses and industrial parks are located. Laguna Water drew up a supply improvement plan worth P1.2 billion which will develop the program considered to be the single biggest water infrastructure program in Laguna. The water infrastructure is expected to provide service connections to some 400,000 consumers by 2014.

Boracay Island Water ensures the sustainability of a top tourist spot. A joint venture in 2009, between Manila Water and then Philippine Tourism Authority (presently, Tourism Infrastructure and Enterprise Zone Authority), the Boracay Island Water Company was created to make sure that a comprehensive infrastructure master plan would be implemented. The program would ensure 100% coverage of water supply and sewerage in the entire island. A newly rehabilitated wastewater treatment plant by Boracay Island Water Company now provides a much improved wastewater effluent quality in Boracay. The treatment plant supports Boracay's goal of protecting its rich environment as well as helping improve on the island's status as one of the Philippines' premier tourist destinations in the coming years.

Clark Water supports the Freeport Zone's bid as the next investment hub north of Metro Manila. In 2011, Manila Water acquired 100% of Clark Water Corporation, the leading water utility in the Clark Freeport Economic Zone in Pampanga that supplies water to 1,800 residents and locators.

Bulk Water Supply Project in the Queen City of the South – Cebu. Manila Water's expansion outside of the East Zone continues to grow when it was able to secure the bulk water supply project in Cebu in 2012. The 30-year joint investment agreement with the government of Cebu provides Manila Water the opportunity to help develop and operate the bulk water supply system, allowing access to 35 MLD in target areas in the province. The joint agreement – renewable for another 25 years – will ensure access to more sustainable water as its provision includes converting Cebu's deteriorating groundwater source to more environmentally-sound surface water.

International Investments

These local acquisitions later made it possible for Manila Water to embark on major projects that introduced the company's business model beyond the Philippines. Manila Water was able to look at opportunities in the region – in other Asian countries with similar characteristics, i.e. demographic profile.

In Viet Nam... Manila Water is the largest foreign and direct investor in their water sector, having acquired a controlling stake in two major bulk water companies in Ho Chi Minh. These acquisitions provided the opportunity for Manila Water to supply 35% of the total water supply requirements of the region.

Having been awarded by the Ho Chi Minh City Infrastructure Investment Joint Stock Company, Manila Water now owns 49% of Thu Doc Water BOO Corporation, the largest private bulk water supplier in the southern part of Viet Nam. The deal was considered the largest private acquisition in Viet Nam's water sector history. It signaled Manila Water's emergence as a major player in the international water utility market. Later on, Manila Water was also able to secure more than 47% ownership of the water supply company in Kenh Dong – the Kenh Dong Water Supply Joint Stock

Company. This recently completed acquisition made Manila Water part owner of the only existing pair of privately-owned water treatment plants in Ho Chi Minh City.

Future Vision...

With financial capabilities efficiently and strategically positioned, along with a managerial approach that focuses on bringing out the best in its people, Manila Water was able to accomplish challenges that seem insurmountable when the company took over in 1997. As Gerardo Ablaza, Manila Water's President and CEO would often say, the company is "*committed to deliver results as a key player in the region's water industry. As we capitalize on our success in the East Zone, we shall continue looking for opportunities to replicate our business model to other areas outside the concession.*"[58]

[58] *Agos*. The Official Magazine of Manila Water Company. Manila Vol. 16, No. 130, July-September 2012.

PART V

MAINTAINING SUSTAINABILITY

CHAPTER TEN

EMERGING CHALLENGES AND ISSUES

FOR MANILA WATER, the company's objective and strategy succeeded in providing its customers with water services that are affordable and of high quality, while providing incentives to innovate and gain efficiencies. And most importantly, it was able to adequately finance the company's operations.

Fifteen (15) years ago, the vision was to develop a water utility under a PPP model that can efficiently supply water from the pipes to the individual taps of the households in the East Zone. Through the years, this vision not only shaped the direction of Manila Water, but more importantly, the future vision of being a major player in the Asian market.

Looking back, Manila Water's 15 years can be summed up in four phases: survival, expansion of coverage, alignment of business sustainability goals, and venture outside of the East Zone. The first years of Manila Water focused on surviving the seemingly insurmountable challenges that an ailing water utility is faced with. The company laid out the foundation that ensured efficient supply of water to it clients despite the hardships during the Asian Financial Crisis and the long episode of El Niño.

The second phase targeted expansion of service coverage. Manila Water took on the rehabilitation and expansion of projects. This resulted in additional 300,000 households with service connections, increase in revenue, and reduction of NRW.

The third phase provided for leadership that encouraged alignment of business with sustainability goals. Corporate social responsibility (CSR) became part of Manila Water's business model that has

matured to a level that aligns business viability with creating a positive impact in the communities it serves as well as the environment.

Finally, the profound changes and sustained growth of the company made it possible for Manila Water to venture outside of the East Zone. Because of the organization's focus and flexibility, Manila Water became a shining example of how Filipinos can truly excel despite the odds. Manila Water has managed to rise above these challenges and eventually emerged as among the world's best water operators.

After 15 years, Manila Water continues to strive harder to provide better service to its clients. Despite having established a strategy that resulted to becoming a beacon of success in the water management sector, strategies do evolve with changing business landscapes. There will always be a need to constantly re-think, improve, and if necessary, revise the strategy in order to keep up with the challenges and issues that Manila Water continues to face moving forward.

Manila Water now recognizes a new set of emerging issues as it continues to deliver on its promise to provide better customer service. As the company ventures into new opportunities to fulfill the goal of sustainable growth, new challenges await Manila Water. As its ultimate mission, Manila Water intends to fulfill its mandate to protect the environment – the one source that sustains the natural resources essential to its operations. Guided by the principle of "Partnering toward Sustainability," key issues that need to be addressed in order to achieve a sustainable concession in the East Zone has been identified.

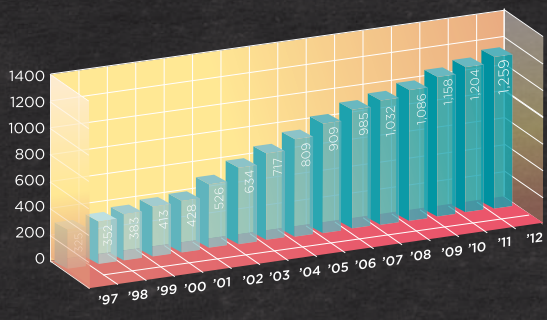
CHALLENGE #1: Urbanization and Increase in Population

For the past years of operation, Manila Water has had significant success in fulfilling the terms of its service level commitment in the concession agreement. The concession agreement defines service obligations of Manila Water as concessionaire based on water service, sewerage and sanitation, and customer service.

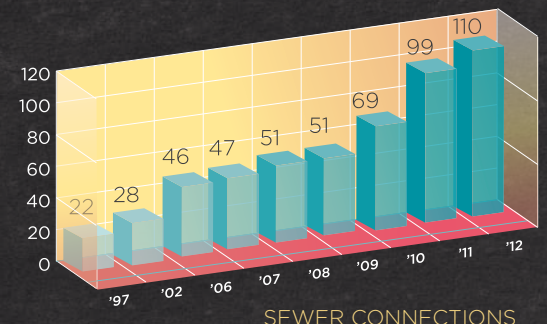
In terms of water service obligations, Manila Water was able to meet, and at times, exceeded its targets for water service coverage. For the period of to 2011, Manila Water connected more households into the system. It was able to ensure 24-hour water supply availability at adequate pressure to over 800,000 water service connections. This represents over a million households in the East Zone enjoying reliable

access to potable water supply. Notably, a significant number of the customers come from low-income communities.

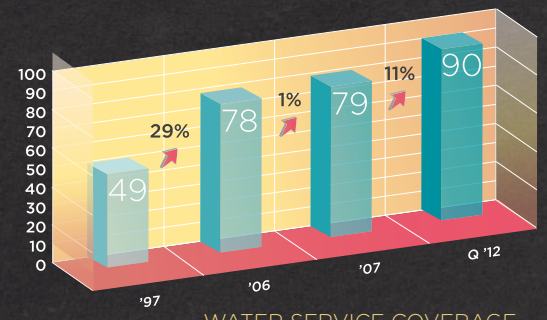
Despite these improvements, there remains a challenge in continuing to comply with the water service obligations due in part to urbanization and constant increase in population. The pace of urbanization, and as a result, migration to Metro Manila, is faster than the planned water service projects. Thus, Manila Water needs to develop new water sources for Metro Manila to keep up with the rapid growth in urbanization and population.



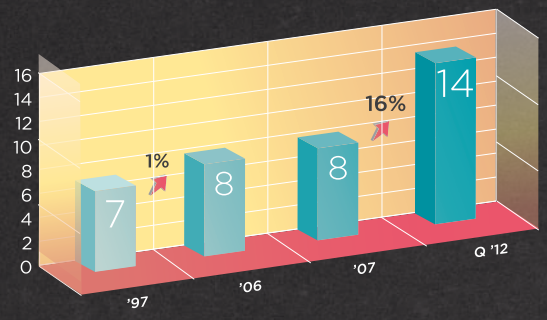
WATER SERVICE CONNECTION HOUSEHOLDS (in thousands)



SEWER CONNECTIONS (in thousands)



WATER SERVICE COVERAGE (as a % of East Zone population)



SEWER SERVICE COVERAGE (as a % of East Zone population)

Urbanization and Increase in Population = New Water Source

In the last 15 years, no new water source has been developed that can sufficiently address the long-term impacts of urbanization and the burgeoning population. Currently, Manila Water gets its water source from the Angat Dam, and the company continues to rely on it to provide 97% of the water requirement. The continued reliance on a single water source increases significantly the likelihood that the customers will experience service interruptions, and worse, water supply shortages during times of calamities and disasters.

Developing and implementing a long-term water source is capital intensive. There is a need, therefore, to establish clear and objective guidelines to secure continuous and uninterrupted water supply for the East Zone.

Using Manila Water's experience from a concession model, this can be a source of insightful lessons for other parts of the Philippines. A concession agreement model for other megacities such as Cebu and other top metros is ideal. In fact, a model that is as good, if not better, than the MWSS and its capacity to invite the best private sector to help improve the area would be the best strategy for other locations in the country. Nevertheless, the concession model needs major surgery to make a difference. It has to have stronger institutional reforms that can utilize know-how and capital to help secure better and more efficient water supply service to the rest of the country.

Urbanization and Increase in Population = Need for Wastewater Service

Manila Water has connected a large number of our customers and it needs to consider that the water consumed will eventually turn into wastewater. In the process of the water cycle, Manila Water harvests water from nature, then treats and distributes it, and then when people consume the water, the by-product would be wastewater.

For sewerage and sanitation,[59] Manila Water was able to provide more customers with access to wastewater service via a direct connection to a sewer network. It implemented over 109,000 sewer service connections and desludged more than 280,000 septic tanks from 2008 to 2012 across the East Zone. Subsequently, discharges that were collected were treated through combined sewer-drainage systems or through desludging and septage management services.

Despite the company exceeding its sewerage coverage targets, in a megacity such as Metro Manila, a major wastewater and sewerage treatment facility is much needed for the amount of water consumed. Unfortunately, Metro Manila lags behind other major cities in Asia in the establishment of a holistic wastewater and sewerage system and treatment infrastructure. For one thing, availability of land is a major issue that dampened implementation progress for key wastewater treatment plants. And if there are accessible tracts of land that fit the requirements, these are just too expensive.

[59] Sewage refers to the waste material (such as human urine and feces) that is carried away from homes and other buildings in a system of pipes. Sewerage, on the other hand, is the system or process used for carrying away water and sewage. Sanitation is the process of keeping places free from dirt, infection, disease, etc., by removing waste, trash and garbage, by cleaning streets, etc. (http://www.merriam-webster.com)

In addition, Manila Water needs to consider the willingness of the customers to pay for the services, or as in the case of wastewater projects, the seeming lack of it. Although majority of Manila Water's customers are generally open to the advantages of wastewater services, some are unwilling to pay more for these benefits. This lack of willingness comes from insufficient understanding of the long-term benefits from wastewater services – benefits that not only serve the present customers but the future customers as well.

Affordability of Tariffs

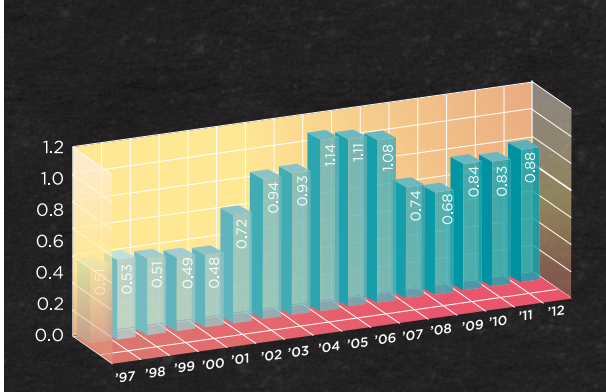
The impacts resulting from urbanization and increase in population demand the development of new water supply sources as well as the establishment of a long-term wastewater and sewerage treatment facility. However, these entail significant capital investment cost, which brings up the question of whether Manila Water could still provide affordable water service.

There is still an evident lack of willingness by customers to pay for the improvements. This is despite efforts to continuously promote customer awareness on the benefits of Manila Water's service reliability by enhancing and expanding operations with new projects, as well as on the positive customer sentiments drawn from the PAWS survey conducted in 2011 by the University of the Philippines-National Engineering Center (UP-NEC). This validates customers' concern on the affordability of tariffs.

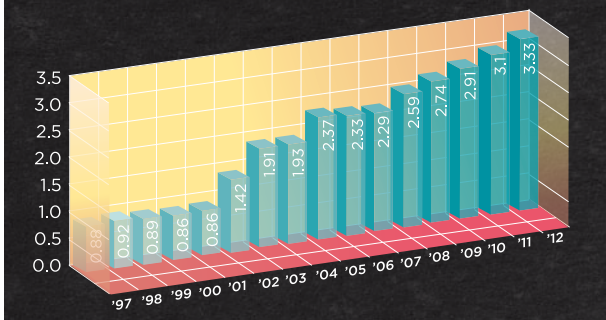
For water service, tightening economic conditions and budget constraints are the main factors that make majority of the customers more prudent when paying more for such service. This is in spite of service levels staying the same, and even when long-term reliability of the service is guaranteed. This is where the rate rebasing mechanism comes in. Manila Water is successful because both the contract and the private sector are good. The rate rebasing

mechanism indicated in the concession agreement is a key success determinant that allows Manila Water to pursue its capex programs. It is an excellent model that provides the company the opportunity to review its capital investments if there are gaps that need to be changed, every 5 years. However, it is very important to note that the cash flows that were invested in Manila Water should in turn become capital investments that will result in improved service. When the service is good, the customers would therefore be willing to pay for such service. The capex indicated in the concession agreement therefore should translate to service improvement to ensure willingness-to-pay among the customers and thereby enable sustainability of the business environment.

This raises the issue of whether government should subsidize water and wastewater services. This, however, will have implications on other projects such as infrastructure and social programs that government needs to invest in to ensure development. Hence, this is one major challenge that the National Government should address with regard to water sector reform in the country.



TARIFF AFFORDABILITY RATE - LOW-INCOME HH
(water bill as a % of HH Income)



TARIFF AFFORDABILITY RATE - AVERAGE INCOME HH
(water bill as a % of HH Income)

CHALLENGE #2: Regulatory Risk

> Failure to manage regulatory and socio-political uncertainties may create business challenges, delay project completion, and hinder fulfillment of service obligation.
>
> **– Concession Risks, Manila Water Company**

Under the privatization structure, a Regulatory Office was established that will be within the organization of the MWSS, but shall have separate activities from that of the MWSS as possible. Once the concession agreement was in place, the Regulatory Office was tasked to monitor and enforce the terms of the agreement. The Regulatory Office is responsible for a range of activities that include verification of the concessionaires' compliance based on the standard requirements, and has the right to assess penalties for the benefit of the customers if a concessionaire fails to meet any of its service obligations.

The concession agreement has been structured in such a way as to provide the Regulatory Office with as much autonomy as possible in discharging its functions. This way, the Regulatory Office shall act as the arbitration unit when conflict arises, especially when the interests of the MWSS Board does not align with those of the Regulatory Office. However, this particular provision also has its downside as it limits the Regulatory Office's autonomy according to how much the MWSS will impose based on the MWSS Charter. This would pose a challenge for the concessionaire as it creates a regulatory risk due to the prescribed institutional setup. The concession agreement is a regulation-by-contract. Independence of the Regulatory Office is not the panacea to the problems on water supply. In fact, it could even be the source of the problem.

Again, this raises the issue on whether a Regulatory Office that is totally independent of the MWSS should be created. This is despite the fact that the ultimate decisions and actions of the Regulatory Office, as well as those of the MWSS and concessionaires, are bound by the provisions within the concession agreement.

CHALLENGE #3: Climate Change

Climate change has become one of the issues of this century that demand full attention to mitigate its impacts. Unfortunately, the growing economies and rapid development are putting severe strains on the environment. And unless approaches to development and economic growth are changed to address pollution, destruction of natural resources and environmental degradation that includes climate change, sustainable progress is at risk.

Environmental damage and depletion of resources are slowly affecting growth and development that consequently lowers the quality of life. According to a study of the Organisation for Economic Co-operation and Development (OECD), poor populations, often those located in the cities, are among the most vulnerable to climate change.[60] The reason for this is that the poor populations tend to settle in sub-standard living facilities in more vulnerable areas as they lack the resources to effectively protect themselves from the impacts brought about by extreme changes in climate conditions.

In order to address this pressing issue, ADB's Strategy 2020 refocuses its operations into five core specializations that reflect the needs of its developing member countries (DMCs). One of the core specializations that were highlighted in Strategy 2020 is environment, including climate change.[61] In preparing Strategy 2020, ADB identified leading challenges that face Asia and the Pacific region relative to climate change based on the premise that only environmentally sustainable growth can eliminate poverty.

With this in mind, Manila Water acknowledges the effects of climate change especially on its customers. In the case of Manila Water, climate change brings about challenges such as an increase in variability of water supply. This is a pressing challenge that needs to be addressed particularly since Metro Manila would be severely affected by unforeseen events such as drought and flooding. Typhoon Ondoy (International Name: Ketsana) in 2009 is one example of how flooding can severely impact on the lives of the residents in the metro area.

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[60] Organisation for Economic Co-operation and Development (OECD). 2010. *Cities and Climate Change*, OECD Publishing. Executive Summary, p. 17.

[61] ADB. 2008. Strategy 2020: The Long –Term Strategic Framework of the Asian Development Bank 2008-2020.

Again, the pressing challenge to be considered during the onset of these calamities would be to develop and implement new water sources to sufficiently supply residents of Metro Manila with their water needs. The continued reliance on Angat Dam, the sole source of water supply, will significantly increase the prospect of customers experiencing service interruptions, or supply shortages. Manila Water has already initiated notable changes in future projects and programs given that there are unforeseen developments brought about by climate change. One of Manila Water's commitments to environmental sustainability is a more aggressive implementation of its Wastewater Master Plan that outlines the company's plan to attain 100% wastewater coverage by 2022. Manila Water has also put in place and will continue to implement its Sanitation Program for all the municipalities in the East Zone. Additionally, the company has incorporated several initiatives that contribute to the protection of major water bodies in Metro Manila.

STRATEGIC DIRECTION STATEMENT #3:

"We will establish a network that is reliable, and is resilient to natural calamities and emergencies."

STRATEGIC DIRECTION STATEMENT #7:

"We will be aware of, and adapt to, how climate change impacts our ability to serve our customers."

CHALLENGE #4: Replicating the PPP Model in Top Metro Cities Within the Philippines and in the Region

Replicating the PPP model in other top metros is another challenge that Manila Water is facing. Manila Water, as one of the concessionaires, is encountering barriers that make it difficult to successfully implement projects and programs that will ensure effective and reliable water service to its customers. As it continued to develop these projects and programs, it became apparent that Manila Water has to consider such barriers that would have significant impact on the implementation process: operational difficulties, land availability, stakeholder endorsement, social acceptability, and cooperation with government agencies.

OPERATIONAL DIFFICULTIES

For service accessibility, Manila Water is committed to expand services to more communities in the East Zone and the farther reaches of the concession area. In order to achieve this objective, Manila Water needs to consider the different conditions involved in setting up operations, especially with the issue on institutional setup. It is necessary for Manila Water to take into account the dynamics that will affect the local government units and water districts on the one hand, and the prospective customers on the other. It needs to be able to distinguish the process to be able to fulfill its mandate as MWSS concessionaire.

One major concern is the security of water supply for the East Zone as Manila Water continues to rely on a single water source – the Angat Dam. The company has committed to work with the concerned government agencies; however, due to changing directives, Manila Water found it quite difficult to implement several new water source development projects. Their inability to carry out Manila Water's programs has significant impact on the service especially during times of severe water supply strain and natural calamities.

LAND AVAILABILITY

Under the concession agreement, Manila Water was appointed as agent and representative of the MWSS relative to the application

for and exercise of acquiring properties needed to implement infrastructure projects in the East Zone. However, as Manila Water began identifying potential sites for its projects, the company encountered several concerns on the scarcity of huge tracts of land. Many of the identified potential sites are located in central and high-density areas ensuing high costs. Given the large land areas needed to establish facilities and infrastructure, the estimated costs to acquire these lands will be too high to maintain relatively affordable tariffs – which lead to the next issue: social acceptability.

STAKEHOLDER ENDORSEMENT AND SOCIAL ACCEPTABILITY

Another challenge that besets the water utility particularly with tariff setting and adjustment is the strong social pressures for tariffs to be kept low. Water is perceived to be a human right, thus, it should be accessible to everyone and anyone. However, the "unwillingness to set appropriate tariff levels for cost recovery" limits Manila Water's ability as concessionaire to achieve economic viability. One main cause of this sentiment among the customers is the lack of understanding despite continued efforts to promote customer awareness on the benefits of Manila Water's service reliability, enhancement and expansion of projects. Another factor is the lack of understanding on "inter-generational equity," or the idea that the projects that will be implemented will benefit not only this generation but the future customers as well. Manila Water, therefore, seeks to identify and provide solutions that would enable a more equitable distribution of costs.

COOPERATION WITH GOVERNMENT AGENCIES

Another important challenge is the need for consistent standards and guidelines for concessionaires and across government agencies. Consistency would encourage good performance, not to mention that it will provide incentives for the concessionaires to continue to strive for improved service that will ensure efficient operations. Ultimately, consistency in the standards for development and implementation of water projects will provide significant impact in terms of relatively affordable costs and tariffs. Manila Water proposes the

establishment of clear guidelines that will outline the respective roles and responsibilities of each agency, and facilitate smoother coordination to implement future projects.

Based on Manila Water's experience, replicating the concession agreement is a function of political will. Unless there is political will to introduce reform in the water supply sector in the Philippines, replicating the PPP model in other areas of the Philippines and in the region will always pose a major challenge.

CHALLENGE #5: Internal Challenge – Developing New Talents and Leaders in the Water Sector

Manila Water is looking at developing new talents and leaders that will be at the helm of the water sector in the future. Many of Manila Water's employees are ex-MWSS, aged 45 to 55. Hence, they will be retiring soon. This is precisely the objective of Manila Water when it established the Cadetship Training Program – so that the company can train new employees to the system and process that Manila Water has been known for through the years.

The Cadetship Training Program can better be replicated through a business-university exchange. Manila Water is in the process of establishing a university wherein there will be an exchange of corporate and university knowledge incorporated in the curriculum.

A good pool of fresh, new talents will certainly be key to execute effective and efficient initiatives in delivering better services to customers. Creating a steady supply of skills and talents is as important as creating new water sources for operations. Manila Water constantly puts a premium on keeping its people updated with international best practices in the water industry. In fact, the company has always included in its budget local and international training programs and forums that allow key talents the opportunity to network and benchmark with other industry practitioners. Lastly, Manila Water has invested in leadership advancement programs that will develop the capacity of its managers to lead and achieve business results through others.

Manila Water has invested in its people from the very first instance. Manila Water will continue to do so as the company builds stronger capacity to deliver on its promise and prepare for the challenges ahead.

Next Steps

No strategy lasts forever. Manila Water understands that as it outlines its future plans, it is crucial that the organization develops new strategies to mitigate the impacts of the challenges and issues that it will have to face. Thus, Manila Water believes in continuing to ensure reliable service not only to the present customers, but also to the next generation.

PART VI

CONCLUSION

COMMITMENTS FOR THE FUTURE

MANILA WATER'S vision is to become the leader in the provision of water and wastewater services, which will empower people, protect the environment, and ensure that its activities and operations contribute to and enhance sustainable development. This vision will remain the guiding principle for Manila Water as it continues to sustain its business, serve the communities, and protect the environment within which the company operates.

The challenges and sustained growth experienced by Manila Water in the last 15 years would not have been possible without the dedication and commitment of its employees. Manila Water believes that with the excellence imbibed within the organization, the company can look forward to the future, as one of the leading water operators in Asia and in non-Asian emerging markets as well.

As Manila Water moves toward a future where it will replicate its success in the East Zone in areas outside the concession, the company looks forward to constantly being inspired by its mission to provide clean and safe water to more communities. It is the only way Manila Water knows to help secure the future of the next generation today.

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ANNEX 1

KEY PERFORMANCE INDICATORS (KPI) / BUSINESS EFFICIENCY MEASURES (BEM) REPORT SUMMARY CY 2003-2012

PARTICULARS		RATE REBASING 2003					
		2003		2004		2005	
		TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL
WATER SERVICE (W)							
W1	DOMESTIC CONNECTIONS (RR08) / HOUSEHOLD WATER SERVICE CONNECTIONS (RR03)						
New Domestic Connections			24,372		26,122		30,121
YTD New Domestic Connections			386,429		424,498		463,008
YTD Water Service Connections			426,107		462,668		503,363
YTD Household Water Service Connections		466,563	634,138	485,211	717,341	503,217	809,333
W2	CONTINUITY OF SUPPLY						
% of Total Hours @ 24 hours supply			83%		83%		83%
W3	PRESSURE OF WATER SUPPLY						
% of Total Hours @ minimum 7 psi					91%		89%
W4	WATER QUALITY AT PLANT OUTLET						
% Compliance with PNSDW		100%	100%	100%	100%	100%	100%
W5	WATER QUALITY IN DISTRIBUTION						
% Compliance with PNSDW		95%	100%	95%	99.68%	95%	100%
W6	SAMPLING						
% Compliance with PNSDW		95%	100%	95%	100%	95%	100%
No. of tests conducted							
SEWERAGE + SANITATION (S)							
S1	SEWERAGE CONNECTIONS						
New Connections (Including connections from combined sewage-drainage system)		17,027					
YTD New Connections		25,918	26,743	26,138	29,406	26,358	29,486
S2	SANITATION						
No. of Septic Tanks to be emptied (non-cum)		7,200	11,130	14,600	17,674	17,680	18,408
% Requirement							
YTD Septic tanks to be emptied (cumulative)							
S3	WASTEWATER EFFLUENT STANDARDS						
Compliance with DENR Standards		100%	100%	100%	100%	100%	100%
CUSTOMER SERVICE (C)							
C1	RESPONSE TO CS COMPLAINTS (WITHIN 10 DAYS)						
2008 Compliance		95%	90%	95%	98%	95%	99.70%
C2	RESPONSE TO BILLING COMPLAINTS (WITHIN 10 DAYS)						
2008 Compliance		90%	93%	90%	98%	90%	99.80%

PARTICULARS		RATE REBASING 2003					
		2003		2004		2005	
		TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL
C3	RESPONSE TO REQUEST FOR NEW CONNECTIONS (WITHIN 5 DAYS)						
2008 Compliance		100%	100%	100%	100%	100%	100%
C4	INSTALLATION OF NEW WATER SERVICE CONNECTIONS (WITHIN 7 DAYS)						
2008 Compliance		This KPI was only set starting RR08.					
C5	Response to disruptive mains failure (within 24 hours)						
2008 Compliance		100%	100%	100%	100%	100%	100%
INCOME (IN)							
IN1	BILLED VOLUME (MCM)						
% Cumulative Monthly Forecast							
Billed Volume (mcm)			273		290		310
Billed Volume (mld)		782	767	814	825	881	864
IN2	REVENUE COLLECTION RATE						
2008 RR		95%	100%	95%	97%	95%	99.50%
OPEX (OP)							
OP1	LABOR						
% Cumulative Monthly Forecast							
Labor Cost (in million Pesos)		648	622	673	678	826	796
OP2	POWER (MILLION KWH) (WATER AND WASTEWATER)						
% Cumulative Monthly Forecast							
Power (million kWh)		82	60	84	87	87	59
Power Cost (million pesos)		468	341	484	349	532	444
OP3	TOTAL OPEX (RR03) / OTHER CONTROLLABLE OPEX (RR08)						
% Cumulative Monthly Forecast							
Total OPEX (in million Pesos)		1,848	1,604	1,942	1,815	2,274	2,156
CAPEX (CA)							
CA1	MWC CAPEX						
Total CAPEX (in million Pesos)			1,844		3,608		4,283
NON-REVENUE WATER (NR)							
NR1	NRW LITRES/CONNECTION/DAY						
2008 l/conn/d (year-end) (based on the supply-demand model in the Financial Submission)		1,792	1,595	1,532	1,136	1,526	790
In %		53%	51%	51%	43%	47%	36%

* Figures for August to December 2012 are aggregated due to adjustments brought about by the implementation of the read-and-bill system.
** Based on unaudited financial statements.

PARTICULARS		RATE REBASING 2003				RATE REBASING 2008	
		2006		2007		2008	
		TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL
WATER SERVICE (W)							
W1	DOMESTIC CONNECTIONS (RR08) / HOUSEHOLD WATER SERVICE CONNECTIONS (RR03)						
New Domestic Connections			57,060		76,172	41,710	44,301
YTD New Domestic Connections			520,068		596,240	589,000	640,541
YTD Water Service Connections			562,499		639,066		683,894
YTD Household Water Service Connections		542,016	908,798	581,365	985,130		1,031,895
W2	CONTINUITY OF SUPPLY						
% of Total Hours @ 24 hours supply			98%		98%	98%	98%
W3	PRESSURE OF WATER SUPPLY						
% of Total Hours @ minimum 7 psi			86%		99%	76%	99%
W4	WATER QUALITY AT PLANT OUTLET						
% Compliance with PNSDW		100%	100%	100%	100%	100%	100%
W5	WATER QUALITY IN DISTRIBUTION						
% Compliance with PNSDW		95%	100%	95%	100%	95%	100%
W6	SAMPLING						
% Compliance with PNSDW		95%	100%		110.4%	100%	114.30%
No. of tests conducted					49,418	72,177	82,421
SEWERAGE + SANITATION (S)							
S1	SEWERAGE CONNECTIONS						
New Connections (Including connections from combined sewage-drainage system)		17,027				12,000	4,100
YTD New Connections		26,579	29,594	26799	46,523	49,000	50,623
S2	SANITATION						
No. of Septic Tanks to be emptied (non-cum)			15,529		31,409	50,235	58,383
% Requirement						95%	116%
YTD Septic tanks to be emptied (cumulative)						50,235	58,383
							116%
S3	WASTEWATER EFFLUENT STANDARDS						
Compliance with DENR Standards		100%	100%	100%	100%	100%	98%
CUSTOMER SERVICE (C)							
C1	RESPONSE TO CS COMPLAINTS (WITHIN 10 DAYS)						
2008 Compliance		95%	100%	95%	100%	95%	99.71%
C2	RESPONSE TO BILLING COMPLAINTS (WITHIN 10 DAYS)						
2008 Compliance		90%	99.99%	90%	100%	90%	99.73%
C3	RESPONSE TO REQUEST FOR NEW CONNECTIONS (WITHIN 5 DAYS)						
2008 Compliance		100%	100%	100%	100%	100%	100%
C4	INSTALLATION OF NEW WATER SERVICE CONNECTIONS (WITHIN 7 DAYS)						
2008 Compliance		This KPI was only set starting RR08.				95%	99%

PARTICULARS		RATE REBASING 2003				RATE REBASING 2008	
		2006		2007		2008	
		TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL
C5	Response to disruptive mains failure (within 24 hours)						
2008 Compliance		100%	100%	100%	100%	95%	100%
INCOME (IN)							
IN1	BILLED VOLUME (MCM)						
% Cumulative Monthly Forecast						100%	100%
Billed Volume (mcm)			332		374.29	387	387.61
Billed Volume (mld)		913	948	945	1,040		1,055
IN2	REVENUE COLLECTION RATE						
2008 RR		95%	99%	95%	100.92%	95%	98.96%
OPEX (OP)							
OP1	LABOR						
% Cumulative Monthly Forecast						100%	80%
Labor Cost (in million Pesos)		888	1,055	955	970	1,043	830
OP2	POWER (MILLION KWH) (WATER AND WASTEWATER)						
% Cumulative Monthly Forecast						100%	94%
Power (million kWh)		87	59	95	65.59	75.50	71.23
Power Cost (million pesos)		528	396	660	446.52		471.61
OP3	TOTAL OPEX (RR03) / OTHER CONTROLLABLE OPEX (RR08)						
% Cumulative Monthly Forecast						100%	80%
Total OPEX (in million Pesos)		2,434	2,426	2,769	2,373	1,014	812
CAPEX (CA)							
CA1	MWC CAPEX						
Total CAPEX (in million Pesos)			4,799		4,379		4,324
NON-REVENUE WATER (NR)							
NR1	NRW LITRES/CONNECTION/DAY						
2008 l/conn/d (year-end) (based on the supply-demand model in the Financial Submission)		1,358	437	1581	512	539	377
In %		45%	30%	43%	24%	25%	20%

PARTICULARS		RATE REBASING 2008					
		2009		2010		2011	
		TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL
WATER SERVICE (W)							
W1	DOMESTIC CONNECTIONS (RR08) / HOUSEHOLD WATER SERVICE CONNECTIONS (RR03)						
New Domestic Connections		35,000	51,806	24,000	92,151	31,000	42,977
YTD New Domestic Connections		624,000	692,347	648,000	764,793	679,000	807,770
YTD Water Service Connections			736,304		813,942		857,981
YTD Household Water Service Connections			1,086,295		1,157,807		1,204,291
W2	CONTINUITY OF SUPPLY						
% of Total Hours @ 24 hours supply		98%	99%	98%	99.32%	98%	99.08%
W3	PRESSURE OF WATER SUPPLY						
% of Total Hours @ minimum 7 psi		78%	99%	80%	97%	82%	98.83%
W4	WATER QUALITY AT PLANT OUTLET						
% Compliance with PNSDW		100%	100%	100%	99.93%	100%	99.99%
W5	WATER QUALITY IN DISTRIBUTION						
% Compliance with PNSDW		95%	100%	95%	100%	95%	100%
W6	SAMPLING						
% Compliance with PNSDW		100%	118.13%	100%	113.13%	100%	114.70%
No. of tests conducted		77,724	94,512	69,959	82,180	60,240	69,097
SEWERAGE + SANITATION (S)							
S1	SEWERAGE CONNECTIONS						
New Connections (Including connections from combined sewage-drainage system)		9,000	177	10,000	18,110	30,700	30,350
YTD New Connections		58,000	50,800	68,000	68,910	98,700	99,260
S2	SANITATION						
No. of Septic Tanks to be emptied (non-cum)		52,353	65,355	54,412	56,466	56,765	52,147
% Requirement		95%	125%	95%	104%	95%	92%
YTD Septic tanks to be emptied (cumulative)		102,588	123,738	157,000	180,204	213,765	232,351
			121%		115%		109%
S3	WASTEWATER EFFLUENT STANDARDS						
Compliance with DENR Standards		95%	99.72%	95%	99.97%	95%	100%
CUSTOMER SERVICE (C)							
C1	RESPONSE TO CS COMPLAINTS (WITHIN 10 DAYS)						
2008 Compliance		95%	99.82%	95%	99.95%	95%	99.33%
C2	RESPONSE TO BILLING COMPLAINTS (WITHIN 10 DAYS)						
2008 Compliance		90%	99.81%	90%	99.88%	90%	99.27%
C3	RESPONSE TO REQUEST FOR NEW CONNECTIONS (WITHIN 5 DAYS)						
2008 Compliance		100%	100%	100%	100%	100%	100%
C4	INSTALLATION OF NEW WATER SERVICE CONNECTIONS (WITHIN 7 DAYS)						
2008 Compliance		95%	100%	95%	98.83%	95%	99.24%

PARTICULARS		RATE REBASING 2008					
		2009		2010		2011	
		TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL
C5	Response to disruptive mains failure (within 24 hours)						
2008 Compliance		95%	100%	96%	100%	96%	100%
INCOME (IN)							
IN1	BILLED VOLUME (MCM)						
% Cumulative Monthly Forecast		100%	99%	100%	100.19%	100%	98.01%
Billed Volume (mcm)		398	395.99	409	409.77	420	411.63
Billed Volume (mld)			1,101		1,134		1,133
IN2	REVENUE COLLECTION RATE						
2008 RR		95%	99.67%	95%	100.47%	95%	100.02%
OPEX (OP)							
OP1	LABOR						
% Cumulative Monthly Forecast		100%	72%	100%	81%	100%	77%
Labor Cost (in million Pesos)		1,106	795	1,157	939	1,226	940
OP2	POWER (MILLION KWH) (WATER AND WASTEWATER)						
% Cumulative Monthly Forecast		100%	93%	100%	93%	100%	96%
Power (million kWh)		83.80	77.66	90.30	83.97	93.50	89.40
Power Cost (million pesos)			500.50		647.25		714.61
OP3	TOTAL OPEX (RR03) / OTHER CONTROLLABLE OPEX (RR08)						
% Cumulative Monthly Forecast		100%	76%	100%	79%	100%	76%
Total OPEX (in million Pesos)		1,147	877	1,267	997	1,399	1,062
CAPEX (CA)							
CA1	MWC CAPEX						
Total CAPEX (in million Pesos)			5,140		8,516		9,573
NON-REVENUE WATER (NR)							
NR1	NRW LITRES/CONNECTION/DAY						
2008 l/conn/d (year-end) (based on the supply-demand model in the Financial Submission)		504	281	498	172	493	167
In %		25%	16%	25%	11%	25%	11.2%

* Figures for August to December 2012 are aggregated due to adjustments brought about by the implementation of the read-and-bill system.
** Based on unaudited financial statements.

PARTICULARS		2012*		NOTES
		TARGET	ACTUAL	
WATER SERVICE (W)				
W1	DOMESTIC CONNECTIONS (RR08) / HOUSEHOLD WATER SERVICE CONNECTIONS (RR03)			
New Domestic Connections		12,000	37,120	In RR03, W1 is measured in terms of No. of Household Water Service Connections. On the other hand, during RR08, it is measured in terms of no. of domestic connections.
YTD New Domestic Connections		691,000	844,890	
YTD Water Service Connections			896,148	
YTD Household Water Service Connections			1,258,962	
W2	CONTINUITY OF SUPPLY			
% of Total Hours @ 24 hours supply		98%	99.56%	• base is number of connected customers (increasing in time) • excluding areas which cannot be served with 24 hours water supply • There are no targets from 2003 to 2007 since during RR03, only the Central Distribution System (CDS) was targeted and measured in RR03; in RR08, the whole East Zone.
W3	PRESSURE OF WATER SUPPLY			
% of Total Hours @ minimum 7 psi		85%	99.62%	• base is number of connected customers (increasing in time) • excluding areas which cannot be served with minimum 7psi pressure • There are no targets from 2003 to 2007 since during RR03, only the Central Distribution System (CDS) was targeted and measured in RR03; in RR08, the whole East Zone.
W4	WATER QUALITY AT PLANT OUTLET			
% Compliance with PNSDW		100%	100%	Including deep wells
W5	WATER QUALITY IN DISTRIBUTION			
% Compliance with PNSDW		95%	100%	Include Turbidity and Color in monthly analysis for deep well sources
W6	SAMPLING			
% Compliance with PNSDW		100%	107.50%	Sampling in RR03 was measured in no. of samples, while in RR08, this KPI is measured in no. of tests conducted.
No. of tests conducted		55,774	59,962	
SEWERAGE + SANITATION (S)				
S1	SEWERAGE CONNECTIONS			
New Connections (Including connections from combined sewage-drainage system)		7,300	2,604	
YTD New Connections		106,000	109,687	
S2	SANITATION			
No. of Septic Tanks to be emptied (non-cum)		56,794	52,514	
% Requirement		95%	92%	
YTD Septic tanks to be emptied (cumulative)		270,559	284,865	
			105%	
S3	WASTEWATER EFFLUENT STANDARDS			
Compliance with DENR Standards		95%	99.92%	Excludes emergencies (i.e. flooding , etc.) and other unexpected downtime of plants outside of Manila Water's control, with due and proper notification to the MWSS-RO.
CUSTOMER SERVICE (C)				
C1	RESPONSE TO CS COMPLAINTS (WITHIN 10 DAYS)			
2008 Compliance		95%	98.44%	

PARTICULARS		2012*		NOTES
		TARGET	ACTUAL	
C2	RESPONSE TO BILLING COMPLAINTS (WITHIN 10 DAYS)			
2008 Compliance		90%	98.84%	
C3	RESPONSE TO REQUEST FOR NEW CONNECTIONS (WITHIN 5 DAYS)			
2008 Compliance		100%	100%	
C4	INSTALLATION OF NEW WATER SERVICE CONNECTIONS (WITHIN 7 DAYS)			
2008 Compliance		95%	99.42%	• For regular connections ONLY and does NOT apply to projects • This KPI was only set starting RR08
C5	Response to disruptive mains failure (within 24 hours)			
2008 Compliance		96%	100%	300 mm diameter and below
INCOME (IN)				REWARD/PENALTY / NEUTRAL ZONE
IN1	BILLED VOLUME (MCM)			
% Cumulative Monthly Forecast		100%	98.44%	+ / - 1% (conditional on 25% NRW) During RR03, this is measured in terms of mld. On the other hand, during RR08, this is measured in terms of mcm
Billed Volume (mcm)		434	427.25	
Billed Volume (mld)			1181 *	
IN2	REVENUE COLLECTION RATE			
2008 RR		95%	97.29%	
OPEX (OP)				
OP1	LABOR			
% Cumulative Monthly Forecast		100%	102%	+2% / - 4%
Labor Cost (in million Pesos)		1,310	1334 **	
OP2	POWER (MILLION KWH) (WATER AND WASTEWATER)			
% Cumulative Monthly Forecast		100%	97%	+3% / - 5.5% Power in RR03 was measured in terms of cost, while in RR08, this is measured in terms of consumption (kWh)
Power (million kWh)		96.00	92.80 **	
Power Cost (million pesos)			803.86 **	
OP3	TOTAL OPEX (RR03) / OTHER CONTROLLABLE OPEX (RR08)			
% Cumulative Monthly Forecast		100%	91%	+2% / - 4% During RR03, Total OPEX was measured, while in RR08, only the Other Controllable OPEX was measured (i.e., excluding taxes, licenses, regulatory costs, performance bond premium, MWSS rental, labor and power)
Total OPEX (in million Pesos)		1,572	1432 **	
CAPEX (CA)				
CA1	MWC CAPEX			
Total CAPEX (in million Pesos)			7,299	+ / - 15% at the end of 2012 (Transfer of funds between headline items and projects not permitted)
NON-REVENUE WATER (NR)				
NR1	NRW LITRES/CONNECTION/DAY			
2008 l/conn/d (year-end) (based on the supply-demand model in the Financial Submission)		490	164 *	
In %		25%	11.08% *	

* Figures for August to December 2012 are aggregated due to adjustments brought about by the implementation of the read-and-bill system.
** Based on unaudited financial statements.

ANNEX 2

AYALA CORPORATION

Mission Statement

AYALA CORPORATION, as a holding company, has the primary goal of establishing, developing, financing and leading business undertakings in strategic industries in the Philippines, in the Association of Southeast Asian Nations region, and in other key growth areas.

Our intent is to be a strong, Philippine-based business house with an international character, combining Filipino talent and ingenuity with international-acquired technology.

Driven by the core values of *integrity and primacy of the person, dignity of work, pride in excellence, commitment to national development and concern for others,* we are committed to ensure long-term profitability, increase shareholder value, provide stable employment and career opportunities ad build mutually beneficial linkages with partners who share our business philosophy and values.

We strive to be a leader in all our business endeavors and to make a meaningful contribution to national development.

Corporate Credo

First and foremost, *we believe in Divine Providence,* whose goodness we are grateful for, whose guidance we constantly seek, and whose Presence gives meaning to our corporate endeavors and personal undertakings.

We align our business to the national goals, aiming not only for adequate profit and growth, but also to contribute to national development and economic prosperity.

We manage our business enterprises with the spirit of responsible stewardship and professionalism.

We manage our people with respect, giving them equal opportunity, recognizing their achievements, and giving them just rewards.

We are committed to protect and increase the value of our shareholders' investments.

We strive to be good corporate citizens, supporting the government by promptly paying all taxes due it; committing ourselves to community development programs through the Ayala Foundation; and in our personal capacity, responding to the needs of society's underprivileged.

We are conscious of the need to conserve the natural resources we are privileged to use and *to do our share* in protecting the environment.

We endeavor to earn and deserve each day the integrity which we treasure as our heritage.

We commit ourselves and pledge our resources to the continued quest for excellence so that future generations may also benefit from the legacy of Ayala.

Corporate Values

Integrity and Primacy of the Person: We are a company of professionals whose unique roles and individual contributions toward corporate goals provide us with concrete opportunities to develop character and purpose in our professional and personal lives.

Dignity of Work: Work in Ayala allows us to fulfill a fundamental human need: our drive to be productive and useful. Our company engenders in us a sense of pride and satisfaction in the fruit of our talents and efforts, which we place at Ayala's service, as part of a dynamic and well-knit team.

Pride in Excellence: We strive for excellence because turning out the highest quality products and services is the most fitting tribute to our customers and to society at large, to our company, to our colleagues

and to ourselves. This means stretching our performance to levels that match and even exceed our corporate goals.

Concern for Others: We support "people" and "nongovernment" organizations which link needs with resources in the unending work of social development. Ayala accepts its responsibility to society – beyond reciprocity, a commitment to mutual respect, compassion, and giving.

Commitment to National Development: We place a premium on loyalty, not only in our relationships and responsibilities, but also to our roots which are the social and civic ground that has nourished and strengthened our enterprise. We purposefully translate our commitment to national development and into corporate vision and business venture.


Manil

ANNEX 3

THE DANNY LUIS STORY

HI, I'M Mr. Danilo "Danny" Luis, 51 years old, married with two kids. I'm a simple, approachable and humble person, with simple dreams like that of other parents – to have their children finish their studies, as well as to have their own house and land. We're not extravagant; what we have is what we share in our family. We don't forget to always be grateful to God for all the blessings He has given us.

Boss Romel, Arnold and Abe knew me as "*maglulupa*" (someone who works with dirt) because I was always in the streets and highways – in other words, an action man.

I started at the Metropolitan Waterworks and Sewerage System (MWSS) in July 1990 as a service man in the Metropolitan Water Rehabilitation Project II (MWRP-II) REHAB-II. My job was very hard back then. We used to lay new water service connections in the streets – we lay them across the main thoroughfares. Although my salary then was small, I was able to patiently face the challenges in life. With my track record, and with the help of God, I was promoted to Meter Reader; and then not long after, I became Engineering Assistant in the Angat Water Supply Optimization Project (AWSOP).

Then MWSS was privatized and Manila Water Company took over in 1997. I was then assigned as District Metering Area (DMA) Leakage Controller. We were provided various trainings and seminars on the leakage reduction program of the company. We acquired information on new equipment and technology to reduce non-revenue water (NRW). That's when I saw the eagerness and willingness of Manila Water to train its new employees. It was

*Translated from Original (Tagalog)

** **EDITOR'S NOTE:** Danny Luis' name became an icon, a household name synonymous to Manila Water employees' transformation. From a service man of the Metropolitan Waterworks and Sewerage System in 1990, he rose to a distinguished post in Manila Water, to become an NRW Leakage Specialist. Now, Danny is part of the team overseeing the operations in Manila Water's first international performance-based leakage reduction project in Viet Nam. He was the epitome of the "transformation of a Government employee to private sector."

"transformation from Government employee to private sector." It hurts to realize that before, we were like butter that was melting under the sun and slowly fading away without anybody knowing that we existed.

Year 1999 to 2002, I was tasked as NRW Specialist Central Area, which covers Quezon City, Mandaluyong City, San Juan, and Pasig City. From 2002 to 2008, I became Associate Manager for NRW & Network Planner of the Cubao Business Area (BA), where most of my hair turned white for helping the Business Zone Manager (BZM), Territory Business Manager (TBM) and Technical Support Services (TSS) repair and organize the network and reduce non-revenue water (NRW) of the business area. I cannot forget the words of Sir Rene Almendras (MWC President back then). Using a two-way radio, he called me and said, "Cubao-3, Cubao-3, Danny, why don't you sleep!" (Cubao 3 was my call sign then.) Well, you know what that means! That's how firm our NRW team at Cubao BA was when it comes to guarding our area. We sleep with our two-way radio; when we do our laundry, it's behind us where we can easily reach it; even when we go to the mall. I was even mistaken one time for a military man by the security guards. That's life...that's how I monitor my area.

Year 2008 to 2009 came and I was assigned as NRW/Network Coordinator of the Makati Business Area. Although I was there for only a year, my stay with the leakage team and staff was remarkable. We were the ones who cut and hauled a dumptruck-full of illegal service connections ranging from 25 to 32mm polybutylene pipes (PB), pre-assorted tubing in the "*pabahay sa riles*" (houses along the railroad tracks). And the cutting of the 750mm Perlita lines connected to Maynilad Water Sewerage, Inc. (MWSI). Alas, my work in Makati then was cut short.

However, even with my achievements in the Business Areas, I was not fortunate enough to be promoted or even be part of the prestigious P3 award during those times. But I did not get upset. Then somebody (he's now a Senior Manager) talked to me and here's what he has to say: "*Danny, di lang pang local ang iyong nalalaman, bagkus pang international ka boy.*" (Danny, your skills are not only for the local scene; you're for the international.) I got a passport right away and flew to Viet Nam.

Since 2009 up to the present, I have been assigned here in Viet Nam as a Leakage Specialist in Manila Water's first international

performance-based leakage reduction project. It was very hard to adjust here in Viet Nam. In addition to the language barrier, there's depression, boredom, pain and discomfort that one will experience. Our colleagues cannot imagine the hardships we have experienced here. They can't believe what we've been through. You go to work in the morning; then you return to work at night. Then it's the same routine the following day. Add to that the follow-up work that we need to do for the activities we did the other day. One might call it 24/7.

It's also no laughing matter to point out leak detection to 27 local staff in our office here. We communicate through sign language; and sometimes we use broken English to talk to them. Just try communicating in straight English and they would just gape while scratching their heads. But as the Filipino saying goes, *kung walang tiyaga, walang nilaga.* (If we're not patient, we won't succeed.) Maybe that's why somehow, we were able to achieve our contract target on leakage reduction.

How did Manila Water help you become successful?

Actually, Manila Water helped my family in a big way. Before, I was one of those who were always lining up in loan facilities. Even before my pay arrived, I've already made credit advances. I can say that there was a slight change in our way of life ever since I was sent here in Viet Nam. My salary before was just enough for our daily expenses and to take care of our daughters' school tuition. With my new assignment, little by little, we were able to start a small business where we get a small income.

What lessons and insights would you like to impart to those who are only starting in Manila Water?

What I would like to share to those who will read this, and before "endangered species" like me become extinct, maybe what I can advise to those who would want to be successful, don't be a hypocrite. Be true. Be sincere. Let's face the challenges in life. When we fall, rise up immediately and think of a new strategy. Because if we let our emotions control us, we'll easily be defeated by the system. We won't succeed and we'll completely lose hope in life. There's no shame in accepting mistakes; we're not perfect. We slip up. (Xin Loi-

We're only human.)

And to those who want to get where I am now, it's very easy. All you have to do is to be true, sincere, humble, hard-working, persevering, always keep your feet on the ground, and most of all, fear God. That's it and thank you very much. God bless to all (Xin Cam On).

To my NRW Team in Cubao and Makati Business Area, I hope you don't forget them because they have a very big role in my transformation as NRW Leakage Specialist. I won't be where I am now if not for them. (They were just not given a break.)

Thanks to my mentors – Abe Basilio, Romel Carino, Arnold Mortera, Ronnie Lim, Noel Abesamis, and Orly Villareal. Kayo na ang magkaroon ng ganitong tagapayo!

ANNEX 4

WATER FOR THE COMMUNITY ("TUBIG PARA SA BARANGAY")
Making Potable Water Accessible and Affordable for Poor Families in the Philippines

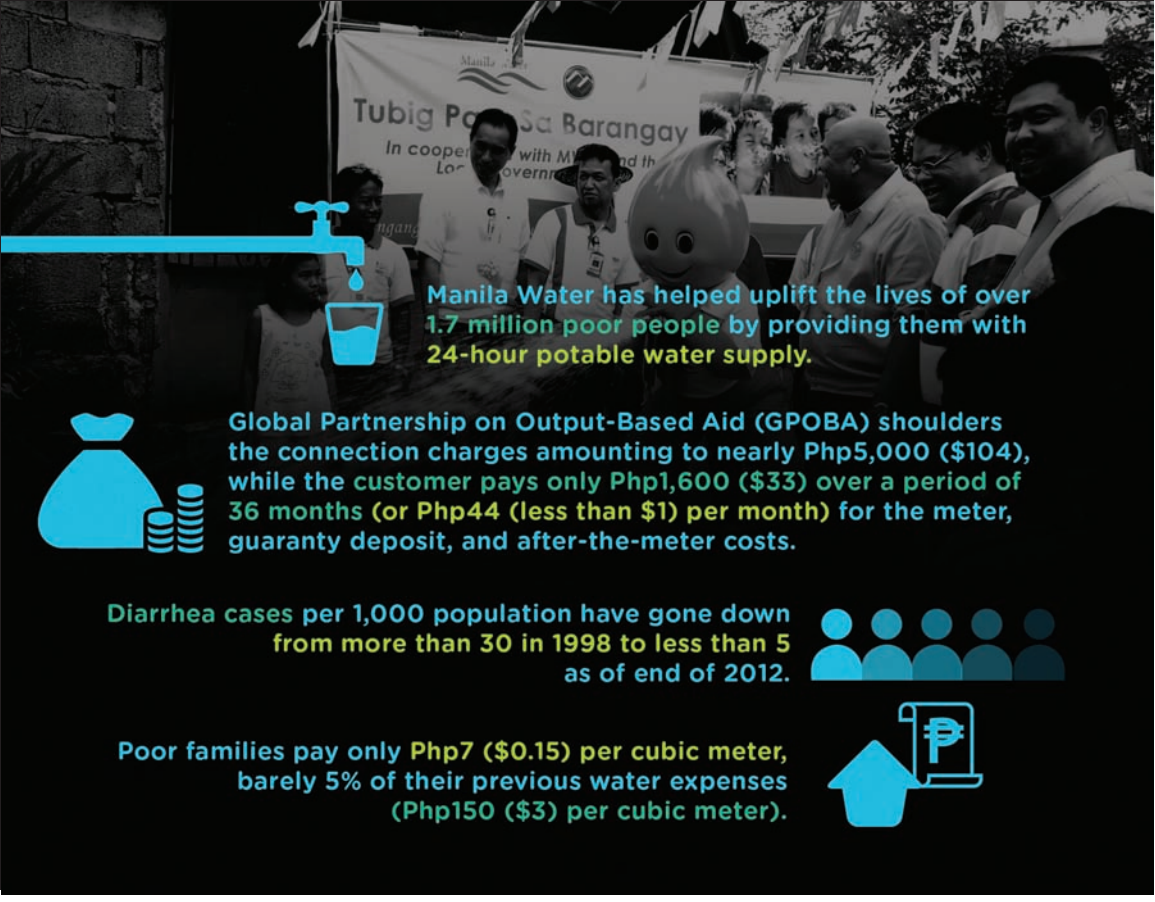
Background

MANILA WATER COMPANY, INC.

MANILA WATER has been acclaimed by the Philippine and international community as a shining example of a successful public-private partnership. Established as a concessionaire of the Metropolitan Waterworks and Sewerage Systems in 1997, Manila Water provides water and wastewater services to over 6 million people in the East Zone of Metro Manila, Philippines.

The Scenario Previous to Privatization

Before privatization, Metro Manila's water supply was inadequate. Only a few areas experienced 24-hour water access, and many marginalized families were unable to apply for water service connections because they lacked a critical requirement for application -- proof of land ownership. Because of this, underprivileged families had to pay steep prices to water vendors just to have enough water for their daily needs. Mothers and their young children walked long miles and queued for hours just to get water from public faucets or shallow wells. Worse, a number of residents resorted to tapping illegal connections to mainlines, a practice which resulted to water contamination on several occasions.



The Solution – Water for the Community Program

Having seen the difficult condition that many disadvantaged families in Manila experienced, Manila Water conceptualized the "Water for the Community Program" ("*Tubig Para Sa Barangay" or TPSB*) program in 1998. The program enabled poor households to easily connect to a piped-in water supply by easing land title requirements. It also introduced flexible financing options and affordable water rates through staggered connection fees, cost sharing among residents, average water rates for bulk connections, among other alternatives. More importantly, the program closely involves the communities themselves in the provision, where members play crucial roles in the management, billing, collection, maintenance and monitoring of each water connection.

Since then, TPSB has been at the forefront of Manila Water's Corporate Social Responsibility (CSR) initiatives. The TPSB is

testament to the Company's commitment to help alleviate poverty by providing a basic need – potable water, safeguarding the population's health and well-being.

Implementation

Realizing its mandate to provide clean and affordable water supply to all customers regardless of their social status, Manila Water advocated for changes in existing government policies to accommodate the underprivileged. Moreover, the Company developed several schemes that are tailor-fit to the physical, social and economic conditions of the community.

TERRITORY MANAGEMENT

Key to the successful implementation of TPSB projects was the strong partnership established by Manila Water with the community, as well as other stakeholders such as the local government and non-government organizations. This was made possible by the decentralized Territory Management approach adopted by Manila Water where the service area was divided into smaller areas, called territories, each handled by a Territory Manager.

Innovation

In 2008, several improvements and modifications were made with regard to the TPSB Program to ensure a more pro-poor approach.

AFFORDABLE PRICING OPTIONS

Under the original TPSB concept, applicants must pay the connection charges (i.e. tapping from the mainline to the water meter) and shoulder the cost of after-the-meter installation. However, Manila Water recognized that this is a big obstacle for many hard-up communities. Thus, the company applied for a grant from the World Bank under the Global Partnership on Output-Based Aid (GPOBA) program in 2007. This secured $2.8 million to subsidize the connection charges for poor customers. Through this program, GPOBA shoulders the connection charges amounting to nearly P5,000 ($104), while the customer pays only P1,600 ($33)

for the meter, guaranty deposit, and after-the-meter costs. Moreover, customers are allowed to pay the meter and guaranty deposit over a period of 36 months, which translates to only P44 (less than $1) per month.

Results

RELIABLE ACCESS FOR A BASIC NEED ALLOWS THE COMMUNITY TO DO MORE

To date, Manila Water has helped uplift the lives of over 1.7 million poor people by providing them with 24-hour potable water supply. Women, especially, no longer have to wake up very early in the morning or stay up late at night to line up and fetch water to have enough supply for the day. And since residents have more time on their hands, they now engage in more productive activities such as small businesses to add to their limited income.

SAVINGS IMPACT

Poor families who have benefited from the TPSB program have also realized substantial savings. A typical family used to buy non-potable water from informal water vendors and re-sellers at P150 ($3) per cubic meter (equivalent to five drums). Spending continues for their drinking needs as they purchased bottled water. With the entry of the TPSB program, poor families now pay only P7 ($0.15) per cubic meter, barely 5% of their previous water expenses.

HEALTH AND SANITATION

Moreover, waterborne diseases have been less frequent in depressed communities, now that clean water is running from the taps. Based on the Philippine Department of Health (DOH) statistics, diarrhea cases per 1,000 population have gone down from more than 30 in 1998 to less than 5 as of end of 2012.

Manila Water also noted significant improvements in the overall health and sanitation conditions in communities. The Water for the Community project, thus, not only improved the quality of water for the underprivileged, but the quality of life as well.

ABOUT THE AUTHOR

MR. RIVERA has been with the Ayala group for more than 25 years and has held appointments with Ayala Corporation under various capacities, including Managing Director, Manager of the Strategic Planning Group, and Head of Strategic Planning of Integrated Microelectronics, Inc.

He is very knowledgeable about the history of Manila Water, being part of the core team that prepared the bid submission and carefully studied the concession contract. Because of the important role he played in the successful bid for the Metro Manila East Zone franchise, he was appointed the Group Director for Regulation and Corporate Development Group (now known as the Corporate Strategy and Development Group) when Manila Water took over from the MWSS in 1997.

Mr. Rivera is responsible for shaping public policy, formulating regulatory strategies, mitigation of regulatory risk, regulatory compliance, and stakeholder relations. He led two successful price reviews in 2003 and 2008, negotiated the amendment of the concession contract which resulted in the 15-year extension of the contract period, and secured a favorable ruling on cost of capital

through international arbitration. At the same time, Mr. Rivera leads Manila Water's expansion efforts to top metros in the Philippines, as well as to targeted markets in the Asian region such as Viet Nam and Indonesia.

His achievements have earned him distinction as a valuable resource person in international conferences on infrastructure privatization, regulatory economics, and public-private partnership (PPP) initiatives sponsored by the Asian Development Bank, the World Bank, Japan International Cooperation Agency, International Water Association, Public Utilities Board, and academic institutions such as Stanford University, TERI University, and National University of Singapore's Lee Kuan Yew School of Public Policy, as well as host national governments in emerging countries.

Mr. Rivera is also the President of Manila Water subsidiaries, namely, Boracay Island Water Company, Clark Water Corporation, and Laguna AAA Water Corporation. Concurrently, he is a Managing Director of Ayala Corporation, one of the Philippines' oldest and largest conglomerates. Mr. Rivera also acted as Chairman of the Management's negotiating panel for the 2006 and 2008 Collective Bargaining Agreement (CBA).

He holds two university degrees in economics and Behavioral Science from the University of Sto. Tomas. He also completed a graduate level course work on M.S. Economics from De La Salle University. In 2011, Mr. Rivera completed the advanced Management Program of the Harvard Business School.

TAP Secrets
The Manila Water Story

'Tap Secrets' is a flagship publication of Manila Water, in partnership with the Asian Development Bank, that reveals how "change management" was adopted by the company to transform the water utility into a world-class service provider. In this book, Manila Water tells its story—the story of a water utility's amazing transformation that is anchored on tapping the unlimited potential of important yet often underappreciated corporate resources. This is the secret of Manila Water's success. Within each and every employee's story, when told collectively, is Manila Water's secrets told.

About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to approximately two-thirds of the world's poor: 1.6 billion people who live on less than $2 a day, with 733 million struggling on less than $1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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