MANILA WATER
CARE IN EVERY DROP

2019 Integrated Report

Whatever challenges come our way, we continue to be true to our mission to provide genuine service.

Genuine Service

About this Integrated Report

Manila Water continuously adheres to the integrated reporting standards as a means of aligning the Company with the external environment. This Integrated Report presents the current year performance of the Company's operating business units and a thorough account of its strategy and governance. This has been reviewed by Senior Management before publication.

The contents of this report are also available for online browsing at reports.manilawater.com/2019

NOTE ON FORWARD-LOOKING STATEMENTS

Certain statements and illustrations contained in this report may constitute "forward-looking statements" within the meaning of applicable securities, laws and regulations. These statements (including plans, objectives, projections, and estimates) and illustrations include information that does not relate solely to historical or current facts, and can be identified by the use of words such as "may," "believe," "expect," "anticipate," "assume," "estimate," "plan" or "continue," and similar expressions or by future or conditional verbs such as "should," "would" and "could."

Such statements are based on current expectations of future events, estimates and certain assumptions of our management. These are therefore subject to certain risk factors and uncertainties, some of which are beyond our control, and which may cause the actual results, the financial situation, the development or the performance to differ materially from the estimates or performance implied in these forward-looking statements. We do not assume any obligation to update these forward-looking statements to reflect actual results, changes in assumptions, or changes in other factors affecting such statements.

REPORTING STANDARDS

This report covers all financial information, as well as economic, environmental, social and governance performance of all Manila Water operating subsidiaries, namely the

Manila Concession (East Zone) of the Metropolitan Waterworks and Sewerage System (MWSS), Manila Water Philippine Ventures (MWPV), Manila Water Asia Pacific (MWAP) and Manila Water Total Solutions (MWTS). This report is aligned with the Integrated Report <IR> Guidelines by the International Integrated Reporting Council (IIRC). It is also in reference to the Global Reporting Initiative (GRI) Standards. The GRI disclosures that have been referred to are in the GRI Content Index located in the 2019 Integrated Report Microsite. The information contained in this report covers the period from January to December 2019.

ON OUR FINANCIAL STATEMENTS

SGV & Co. is the external auditor of the Company's financial statements, with Djole S. Garcia as the new lead engagement partner given the required audit partner rotation every five years. More information about our audit process is found on page 115, while our financial statements can be found on pages 144 to 247.

ON OUR SUSTAINABILITY PERFORMANCE

Senior Management appointed DNV GL, an independent organization and a global provider of certification, assurance assessment, and training services. This is the fourth time we contracted the services of DNV GL with their scope limited to conducting assurance and validating the figures and information pertaining to our sustainability performance and <IR> Frameworks presented in this report.

The Independent Assurance Statement found on pages 126 to 129 validate that the report is in reference with the Global Reporting Initiative (GRI) Standards and adherence to the <IR> Framework. It guarantees the shareholders and readers of the reliability of the reviewed data, claims, and information contained in this report. The Statement also contains the assurer's findings and recommendations for our Company's succeeding reporting period.

FEEDBACK

We welcome inquiries and feedback on this report.
For investor concerns, you may e-mail invrel@manilawater.com. Meanwhile, for sustainability concerns, you may e-mail sustainability@manilawater.com

VISION

Our vision is to become a leader in the provision of water, used water and environmental services which will empower people, protect the environment, and enhance sustainable development.

MISSION

Our mission is to create an exceptional customer experience in the provision of sustainable solutions vital to health and life.

CORE 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 lives.

DIGNITY OF WORK

Our company rouses a sense of pride and satisfaction in the fruits of our talents and efforts, which we place at Manila Water'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 our society, company, colleagues and ourselves.

CONCERN FOR OTHERS

We believe that contributing to social development through the communities we serve and the natural environment that we help protect is the very essence of our corporate existence. Showing a genuine concern for the welfare of others is indispensable in the way we do our business.

COMMITMENT TO NATIONAL DEVELOPMENT

We strongly support all efforts towards the development of the economy and our nation in general, because we realize that the problems affecting our nation and society impact our company's own long-term viability.

Manila Water tankers on the way to relief operations in communities affected by Taal volcano's eruption in January 2020.

Contents

I hold on to the firm belief that Manila Water will always emerge stronger in the face of adversity.

Message from the Chairman

FELLOW SHAREHOLDERS,

AS YOU KNOW, MANILA WATER EXPERIENCED MAJOR CHALLENGES IN 2019. THE DIFFICULTIES WE EXPERIENCED HAVE DRASTICALLY ALTERED THE WAY WE VIEW AND OPERATE OUR BUSINESS.

Message from the Chairman

Marikina North Sewage Treatment Plant,
with capacity of 100,000 cubic meters per day

The first set of challenges in 2019 were operational, but on a scale and magnitude never seen before in Manila Water's history. In March last year, we experienced a severe water supply shortage in our East Zone Concession, with raw water volume in our main reservoirs reaching critically low levels. This caused prolonged service interruptions in several communities, significantly impairing the high standards of service which we have maintained for over 20 years. Furthermore, in August the Supreme Court rendered its decision to have Manila Water and MWSS pay more than ₱921 million in fines for alleged non-compliance with the Clean Water Act. Both Manila Water and the MWSS have appealed the decision, and we are hopeful that the Supreme Court will sustain our position that the Clean Water Act did not require MWSS and its concessionaires to provide a centralized sewerage system for the MWSS service area within five years from March 2004.

Towards the end of the year, we faced an unprecedented and even more fundamental set of challenges – the kind which put into question the foundation on which we have built our business and credibility. It began in November 2019, when we received the award rendered by the Arbitral Tribunal in the arbitration proceedings between Manila Water and the Philippine government constituted under the Permanent Court of Arbitration (PCA) in Singapore. The Tribunal ordered the government to indemnify Manila Water in the amount of ₱7.39 billion representing the actual losses Manila Water suffered from June 1, 2015 until November 22, 2019. The reaction of several key government officials to this arbitral award unfortunately resulted in the questioning of key terms in the Concession Agreement. In order to address the mounting regulatory and government pressure, we resolved to no longer collect the arbitral award issued by the PCA. Additionally, we indicated that we would defer the implementation of our Approved Rate Adjustment for 2020, while we continue to work with MWSS on an arrangement as to how and when this deferral will be addressed in the future.

Despite the very difficult political environment, Manila Water continued to provide reliable service to our customers. This dedication and commitment are characteristics which are distinctly Manila Water – the same values and principles which we have maintained since our concession agreement began.

Back in 1997, we established our commitment to national development by taking on the mandate of rehabilitating and expanding the MWSS water and wastewater system. At the time, systems losses in the East Zone were at a high of 63 percent and wastewater coverage was only 3 percent. In the face of great risk and difficulty, we accepted the challenge of improving water and wastewater service for the communities and households in the East Zone of Manila.

The results of that commitment speak for themselves. From 63 percent in 1997, we have successfully decreased system losses in the East Zone to a world class level of 10.37 percent at the end of 2019. The water we have recovered from the system enabled us to maintain water availability at near 100 percent in our Central Distribution System, with potable water flowing to our customers 24 hours a day and water pressure kept steady at regulatory levels. To ensure the adequacy of raw water supply for East Zone customers, we continuously tried to work with government on its development of medium and long-term new water sources. Unfortunately, there were disagreements on supply projections which prevented us from planning properly for the needs of our concession area. Last year's water supply shortage has allowed us to fast track several new projects in collaboration with MWSS. Notably, the first phase of the Wawa-Calawis Bulk Water Supply Project is projected to supply 80 million liters per day to the East Zone by 2022 which can be expanded further to 518 million liters per day.

For wastewater, we now have over 30 percent wastewater coverage in the East Zone – equivalent to service for 2 million people coming from only 45,000 when we took over the system from MWSS. We continue to remain compliant with environmental standards as we execute our Service Improvement Plan approved by the government. Lastly, we remain open to discussions with the government on the Concession Agreement. The indication that government has engaged the Asian Development Bank for this purpose sends a positive signal that the discussions will be comprehensive and balanced.

The board has also decided to prepare for options to strengthen Manila Water's balance sheet, which is why we are asking the shareholders to approve the increase of shares without pre-emptive rights to 900 million, so that the Company may issue shares as needed and open up opportunities for the entry of a strategic investor.

In Manila Water, we have always seen our responsibility to our customers as more than a business to run. When we committed ourselves to provide quality water and wastewater services to our customers more than 20 years ago, we knew then that it would not be an easy task. True enough, throughout Manila Water's history we have persevered through many challenges – be it natural, economic or regulatory. Our experiences in 2019 once again bring this reality front-and-center.

All these difficult challenges brought out the best in all of us. Each one made us stronger, more united and more committed to our service mission. As we weather these challenges, it inspires me to see that the strength and resilience which our company has built through the years, is very much alive in our people, our culture and in our work. What truly sets the Manila Water spirit apart is its heart for genuine service. In spite of the hardship and sacrifices, Manila Water has never hesitated to extend its hand to help and serve others – no matter when, or where it was needed. This commitment to genuine service is what will see us through the challenges we face today and the challenges that are still to come.

I hold on to the firm belief that Manila Water will always emerge stronger in the face of adversity. The company draws strength from its core – built upon resilience and strengthened by its commitment to genuinely serve its customers. I thank you for your continued trust and support, as we continue to champion our mission of providing access to water and sanitation services for the communities we serve.

I would like to thank our Board of Directors for their guidance and support, our management team and employees for their unwavering commitment, and finally our customers, partners and all our stakeholders who continue to inspire us as we fulfill our service mission.

FERNANDO ZOBEL DE AYALA
Chairman

"What truly sets the Manila Water spirit apart is its heart for genuine service. In spite of the hardship and sacrifices, Manila Water has never hesitated to extend its hand to help and serve others – no matter when, or where it was needed."

...the common thread which runs through every Manila Water employee is our commitment to our service mission.

Message from the President

DEAR SHAREHOLDERS,

THE 2019 INTEGRATED REPORT OF MANILA WATER IS UNLIKE ANY WE HAVE PRODUCED IN THE PAST. ON TOP OF OUR COMPLIANCE TO THE STANDARD REPORTORIAL REQUIREMENTS AS WITH PREVIOUS YEARS, WE FEATURE A SPECIAL REPORTS SECTION WHICH PROVIDES YOU, OUR SHAREHOLDERS, A DIRECT AND OBJECTIVE VIEW INTO THE SIGNIFICANT EVENTS WHICH TRANSPIRED IN 2019. WE HAVE TAKEN THIS NEW DIRECTION FOR THE 2019 INTEGRATED REPORT BECAUSE CLEARLY, 2019 WAS NOT A NORMAL YEAR, BY ANY MEASURE. ALLOW ME TO RECOUNT SEVERAL OF THESE SIGNIFICANT EVENTS, THE DETAILS OF WHICH WILL BE EXTENSIVELY DISCUSSED IN THE PERTINENT SECTIONS IN THIS INTEGRATED REPORT.

Message from the President

Manila Water continues to improve its water distribution system to ensure supply availability

For our East Zone Concession, 2019 will be remembered as the year of the water supply crisis. In March of last year, the decline in La Mesa dam water levels caused water service availability to drop drastically, with La Mesa reaching its lowest level at 68.43 meters in early May. The lack of available raw water supply caused widespread water interruptions in several communities in our service area.

We had to immediately respond by adapting our network operations to a markedly reduced water supply allocation regime. We achieved this by reducing overall pressure in the system while actively managing water supply flow. This unprecedented degree of network adjustment, wherein water flow in the system was redirected several times in a given day, was necessary to ensure that the limited water supply aligned squarely with customer requirements. Furthermore, to ease the inconvenience of affected customers, later that month we announced a one-time voluntary Bill Waiver Program for all customers, as well as for those communities which were severely affected by the water interruptions. This was implemented in April 2019 and was reflected as a sales discount in the customer's billings. Subsequently, a ₱534 million penalty was imposed on us by MWSS in relation to the water supply shortage. Even as we abided by the MWSS decision to impose the penalty by paying the determined amount, we firmly adhere to the fact that the root cause of the water supply shortage was the delay in the completion of the government's new water source projects.

Following the low raw water levels in La Mesa, a similar decline was experienced at Angat Dam towards the middle of 2019, necessitating further reduction of raw water releases for domestic use. In July, raw water allocation from Angat Dam was set at its lowest, with releases limited to only 35 cubic meters per second (CMS) for the MWSS Concessionaires. The aggravated deficiency of available raw water again tested our ability to provide reliable water service to our customers. In response, we pushed even harder towards network efficiency. Our efforts resulted in a more dynamic and efficient water distribution network, enabling us to restore water service to regulatory levels.

Coming from the water supply shortage, we continue to improve and stabilize operations to provide reliable service to our customers in the East Zone. The production at our Cardona Plant reached 98 million liters per day (MLD) as of December 2019. We likewise continue the recommissioning and development of new deep wells, with a total capacity of 55 MLD as of year-end. These initiatives, along with our continued proactive network management and optimization program, keep water availability within regulatory levels for our customers despite lower raw water supply allocation.

Regarding our commitment to provide and expand wastewater services in the East Zone, 2019 likewise saw us face considerable challenges. In August, the Supreme Court ordered each of the MWSS concessionaires, jointly and

severally with MWSS, to pay more than ₱921 million in fines for non-compliance with the Clean Water Act. Said decision stemmed from a case filed by the Department of Environment and Natural Resources (DENR) in 2009 which alleged that Manila Water failed to build sufficient treatment plants and connect its customers to the wastewater system. We affirmed that we would exercise all legal options in relation to this case, including the filing of a Motion for Reconsideration which we timely submitted to the Supreme Court on October 2, 2019. We firmly maintain our position that, as Concessionaires of MWSS, we have fully complied with our obligations under the Concession Agreement and the relevant provisions of the Clean Water Act.

Based on the original Concession Agreement, the wastewater coverage commitment for the East Zone is targeted at 55 percent by 2022. When the Philippine government approved the extension of the Concession Agreement in 2009, our obligation was increased to 100 percent East Zone wastewater coverage by 2037. The extension of the Concession Agreement for an additional 15 years allows us to expand wastewater coverage to more communities at more affordable rates. This new coverage target is in pursuant to a Supreme Court decision promulgated in 2008 for the clean-up and preservation of Manila Bay.

Consistent with our mandate as the MWSS concessionaire for the East Zone, we have invested close to ₱43.56 billion in wastewater capital expenditures since the concession began in 1997, and plan to invest over ₱38 billion more until 2022. These investments are part of the company's government-approved service improvement plan to further expand sewerage and sanitation services in the East Zone. Notably, our wastewater capital expenditures outpace our collections of sewer and environmental charges that total ₱40.65 billion from 1997 to 2019.

Our challenges were not confined to the East Zone. Our domestic and regional businesses experienced its own set of obstacles. Despite these, Manila Water remained resilient. Even in the face of operating and business development setbacks, our domestic subsidiaries under Manila Water Philippine Ventures significantly increased income contribution to the group, with the good performance of the core domestic operating subsidiaries providing a solid foundation. For our international operations under Manila Water Asia Pacific, the performance challenges in our Vietnam investments served to underscore the importance of managing our costs better, as well as of taking a more focused approach in business development.

Looking back at the year that was, the core which held us together and helped us weather the seemingly insurmountable challenges was our people. Manila Water's strength lies in its unique mix of seasoned pioneers who provide experience and wisdom, coupled with young, dynamic leaders who inject energy, innovation and spirit. Whether young or old, the common thread which runs through every Manila Water employee is our commitment to our service mission. This is what defines us – a heart for Genuine Service which takes precedence above all else.

The Manila Water brand of Genuine Service is not confined to within the company alone. This dedication to service extends outward – from our employees, flowing through to our customers, partners and to government as we support their thrust towards national development. Only in working together with our stakeholders can we rise above the obstacles and find better ways to and fulfill our service mission.

As Manila Water looks to the future, we draw strength from the challenges we have faced. We do so because we know this is where we will find the solutions that will make us even better. Equally, we draw inspiration from the trust and support given to us by our customers, partners and stakeholders. I thank our customers for their continued trust and support for the company. I thank our partners and stakeholders for their help in the projects and initiatives which enable us to provide consistent, reliable service to our customers. Finally, I thank my fellow Manila Water employees for their resilience and unwavering dedication to our mission – to render Genuine Service, in all that we do.

JOSE RENE GREGORY D. ALMENDRAS
President & CEO

"As Manila Water looks to the future, we draw strength from the challenges we have faced. We do so because we know this is where we will find the solutions that will make us even better."

La Mesa Dam at 70.07 meters on March 1, 2019

Special Reports: Manila Concession

Challenges to the Concession Agreement

In 1997, the first large scale public private partnership agreement on water utility operations in the Philippines was signed. Manila Water won the bid for Metro Manila's East Zone Concession.

In late 2019, the Philippine President made public pronouncements questioning the 1997 MWSS Concession Agreement, claiming the presence of onerous provisions which are disadvantageous to the government and the people, and declaring the intention to impose a new agreement with the concessionaires. This also resulted in the MWSS Board revoking its 2009 resolution to extend the Concession Agreement by fifteen years.

This article intends to put on record facts of how the public private partnership provisions were developed, what the Concession Agreement provides for, and give an update (as of writing this article) on the status of the much-publicized review, preparation and adoption of the revised agreement.

AWARDING OF THE MWSS CONCESSIONS IN 1997 AND THE CONCESSIONS' EXTENSION BY FIFTEEN YEARS

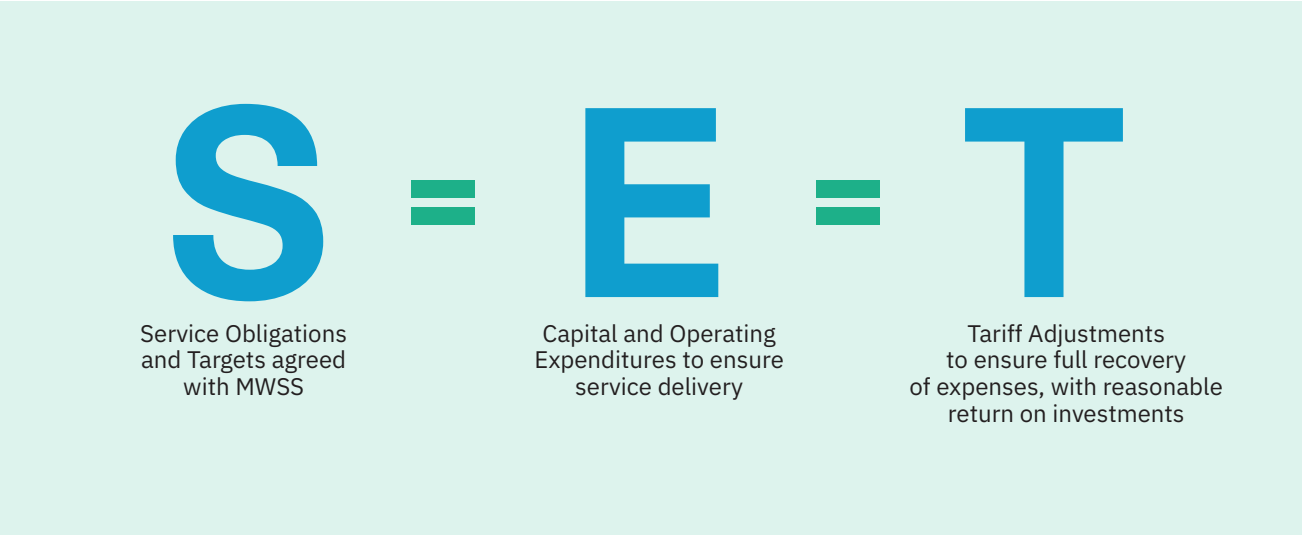
In the mid 1990's the Philippines suffered from a power crisis and a water crisis, both arising from the inability of government to invest timely in infrastructure to address growing demand for electricity and water. In response to the water crisis especially in Metro Manila, the Philippine Congress passed the Water Crisis Act, part of which had provisions giving the President the option to adopt privatization of utility operations as a mode of improving water services.

With support from the International Finance Corporation, and after having studied the various public private partnership models on water services around the world at the time, the Philippine government developed a contract which it believed contained the best provisions that would result in improvements in water services expansion and delivery, efficiency and affordability of services, and while ensuring the bankability of an operating and financial model to potential private bidders.

In early 1997, the proposals for the East and West concessions in Metro Manila were submitted by four private sector bidders, all of whom were joint ventures between an international water operator and a local firm. Manila Water won the public bid for the 25-year MWSS concession in the East Zone of Metro Manila, while Maynilad Water Services won the bid for the West Zone. Operations of the water utilities commenced in August 1997.

In 2009, in response to the Supreme Court's mandamus on the cleanup of Manila Bay which effectively redefined the wastewater service expansion targets, the MWSS extended the Concession Agreement by fifteen years, to ensure wastewater services affordability by having a longer full cost recovery period.

"...the Philippine government developed a contract which it believed contained the best provisions that would result in improvements in water services expansion and delivery, efficiency and affordability of services, and ensure the bankability of an operating and financial model to potential private bidders."



Fundamental Regulatory Principle of the Concession Agreement[1]

THE PROVISIONS IN THE CONCESSION AGREEMENT

The Concession Agreement between two equal parties, Metropolitan Waterworks and Sewerage System (MWSS) and Manila Water, provides the structure and framework on which a private sector partner of government was able to rehabilitate and expand water and wastewater services in the East Zone of Metro Manila.

The Concession Agreement is an output-based framework, wherein the concessionaire is tasked to fulfill service obligations and uphold performance standards under a Service Improvement Plan discussed and approved by the MWSS Regulatory Office, an office created by the Concession Agreement that is intended to represent the interests of the customer. The performance of the concessionaire against these standards is reviewed every five years throughout the concession period, under what is called a Rate Rebasing Exercise. Past accomplishments are reviewed by MWSS, and future plans for service improvement and expansion are presented for review and approval. Once the Service Improvement Plan is finalized, the computation of the rate adjustment is undertaken, wherein a "reimbursement model" is adopted, allowing for the full recovery of capital and operating expenditures over the remaining life of the concession, at a rate of return set against industry and market conventions and duly approved by MWSS. The expenditures which figure into the setting of rates are reviewed by MWSS against standards of prudence and efficiency, to ensure that all outlays are in line with the fulfillment of set service obligations.

Under this framework, the concessionaire is provided a clear and consistent set of guidelines on which to fulfill its responsibilities. The concessionaire can take on the massive amounts of capital expenditures and market risk necessary to execute its service improvement and network expansion projects over a long project horizon. Tariff setting under the framework is formula-based, thus lending predictability to the expectations on which the concessionaire can secure support and financing for its operations.

Ultimately, the government maintains clear oversight on the implementation and administration of the

"The Concession Agreement is an output-based framework, wherein the concessionaire is tasked to fulfill service obligations and uphold performance standards under a Service Improvement Plan..."

[1] Rivera, Virgilio Cervantes Jr. "Tap Secrets: The Manila Water Story" Asian Development Bank Publications. July 2014

Concession Agreement, through the MWSS Regulatory Office which is intended to represent the interests of the customer while performing the balancing act of overseeing the delivery of service obligations, ensuring service affordability and financial sustainability. Ownership over the water and wastewater asset base is retained by MWSS. Any additional assets invested in by the concessionaire during the life of the concession will be turned over to MWSS at the end of the concession period. In line with the Rate Rebasing process, all inputs to the rate setting process – from service obligations, expenditures, rates of return, all the way to the implementation of the new rates – is approved by MWSS.

Disputes between the concessionaire and MWSS are resolved via international arbitration wherein a panel is created under Concession Agreement rules and the decision of which becomes binding on both parties once issued. Obligations of both parties for unilateral early termination are also clearly provided in the Concession Agreement.

The Concession Agreement underwent rigorous review and challenging by numerous agencies in the Philippine Government, including the Government Corporate Counsel. The Philippine Government also warranted that MWSS was authorized to enter into the Concession Agreements when MWSS was privatized in 1997. Several questions on key terms of the Concession Agreement over the years have consistently reaffirmed the legality of the Concession Agreement and its provisions.

UPDATE ON THE STATUS OF THE CONCESSION AGREEMENT

In December 2019, the MWSS Board of Trustees revoked its previous resolution pertaining to the extension of the Concession Agreement of Manila Water from 2022 to 2037. The MWSS Corporate Office subsequently released a press statement clarifying that the resolution did not result in the rescission or outright cancellation of the agreement. The MWSS Regulatory Office also issued a statement clarifying that the Concession Agreement extension has not yet been cancelled.

While the Philippine President publicly stated that there is a revised agreement which will be offered to the concessionaires on a 'take it or leave it' basis with no room for negotiations, as of this writing the government has not officially transmitted to the concessionaires a copy of the said agreement.

The concessionaires are in constant communication – but not in negotiations – with the government, as there are no provisions yet to negotiate or comment on.

The Company believes that the current Concession Agreement has delivered on the objectives of the water PPP framework in the past twenty two years. True to its continuing realization of 'a mission to fulfil, not a business to run', despite any challenges that come, the company will always put above all the desire to provide genuine and exceptional service to its customers.

"Ultimately, the government maintains clear oversight on the implementation and administration of the Concession Agreement, through the MWSS Regulatory Office..."

Water Crisis in the Manila Concession

The year 2019 marks the most challenging year in Manila Water's history. For 22 years, the company has worked to improve water supply to the eastern half of Metro Manila, and has succeeded, year after year, despite the absence of an additional water source, in realizing operational efficiencies and excellent customer service in terms of 24/7 delivery of clean potable water, that is, until the summer of 2019.

This article intends to put on record the events that led to the crisis, what actions were done by Manlia Water and its key stakeholder partners, what lies ahead and most importantly, what the organization has learned to mitigate any future impact to the customers and utimately restore public trust.

MANILA WATER'S TWO DECADES OF IMPROVED WATER SERVICE

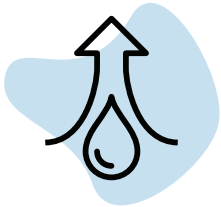
When Manila Water won the bid for the Metro Manila East Zone concession in 1997, only a quarter of the population in its service area had access to 24/7 water supply. Systems losses or non-revenue water from leaks and pilferages was at least 63 percent then, which meant almost two thirds of the water that was treated at the Balara Filters never reached the customer.

As part of the Concession Agreement with the Metropolitan Waterworks and Sewerage System (MWSS), Manila Water contractually should receive 40 percent of the MWSS raw water allocation of 4,000 million liters per day from the Angat-Ipo source which, for over two decades, remains the primary water source of Metro Manila.

Despite the challenges of the Asian financial crisis at the time, Manila Water invested in capacitating and motivating the workforce – the same people who used to run the government utility – and turned around the organizational culture into one that was merit-based and customer-centric. Novel technological solutions and territory management approaches were adopted, and there was heavy investment in replacing the antiquated pipes in the distribution network.

Five years after the start of the concession, the non-revenue water started to go down and settled at around 11 percent by the end of the first decade of operations up to the present. Recovered water from losses reduction, at least 750 million liters per day, became the water with which new customers were served, and in effect, the recovery of water losses could be seen as having averted the earlier onset of a water crisis as MWSS has not yet completed any major water source development projects, such as Laiban Dam or Kaliwa Dam. By the end of 2018, Manila Water had almost one million service connections in its concession area, the growth of which was fueled by giving water access to the base of the pyramid as well as expanding into unserved communities within the MWSS franchise area.

Despite the increase in customer base, Manila Water's raw water allocation of 1,600 MLD from Angat has not increased since 1997. Laiban, Kaliwa or any new water source projects have been delayed and are yet to be implemented by the MWSS.



750 MLD
water recovered from network efficiency initiatives

1,600 MLD
fixed raw water allocation from the Angat source since 1997

THE NEED FOR NEW WATER SOURCES

As the water security agency in Metro Manila and part of adjacent provinces, it is the mandate of MWSS to develop. The concessionaires' role is to abstract raw water from the available sources, treat it to become potable and distribute it to customers, and provide sanitation and sewerage services. As early as 2003, after seeing the demand patterns and population growth projections in their respective concession areas, the two concessionaires already communicated to MWSS the need to develop new water sources.

The improvement in water supply availability for each Manila Water's customers that led to billed volume growth in the last 22 years was driven mainly by efficiency in distribution network operations. But Manila Water knew that water recovered from reducing losses is finite. Non-revenue water at 11 percent is already considered world class, as evidenced by international accolades on Manila Water, and efforts in further reduction to single digit levels are deemed uneconomical and marginally beneficial to address the supply gap.

Demand and supply projections of MWSS and the concessionaires generally agreed that towards the end of the second decade of privatization, the gap between raw water supply and customer demand will be uncomfortably tight as summer peak demand equals the available raw water supply. The completion date of Laiban Dam, already in the MWSS drawing board since the 1980s, kept being pushed back due to environmental, social and governance issues. Further compounding the impending supply deficit was the decision of MWSS to provide raw water to the Bulacan Bulk System serving Bulacan municipalities using the same 46 CMS Angat water allocation for MWSS. By the year 2010, it was clear to everyone concerned that the large new water source will not be implemented in the next decade. According to MWSS, the completion of the delayed Kaliwa Dam project , intended to supply 600 MLD raw water to the concessionaires, is forecast to be operational in 2024, at the earliest.

Thus, in the 2013 and 2018 rate rebasing exercises when business plans were submitted, Manila Water proposed to develop medium-term water sources which would have served as a bridge between the limited water supply of Angat and the next big source which was to be completed by MWSS in 2024. Of the list of projects proposed by Manila Water, only the Rizal Province Water Supply Improvement Project (incorporating the Cardona Water Treatment Plant which takes raw water from Laguna Lake) was approved only two years after the 2013 rate rebasing, when the timelines were already tight. The rest were removed from the approved list of projects by MWSS, indicating that the projects will be implemented by the agency.

"Manila Water proposed to develop medium-term water sources which would have served as a bridge between the limited water supply of Angat and the next big source"

Angat reservoir's historical lows in recent times were in 2010 at 157.58 meters, and in 2019 at 157.98 meters, both El Niño years.

Despite the shortage of live water source development projects to serve Metro Manila's future, Manila Water continued operating and adopting innovative solutions in order to sustain the customers' experience of 24/7 reliable and clean water supply. The company started experiencing the demand versus supply pinch in the summer of 2016 but fortunately, it was able to harness stored water in the La Mesa reservoir as a buffer for peak demand. Thus, for succeeding years the customers did not experience major water interruptions or reduced pressure.

THE ONSET OF THE WATER CRISIS

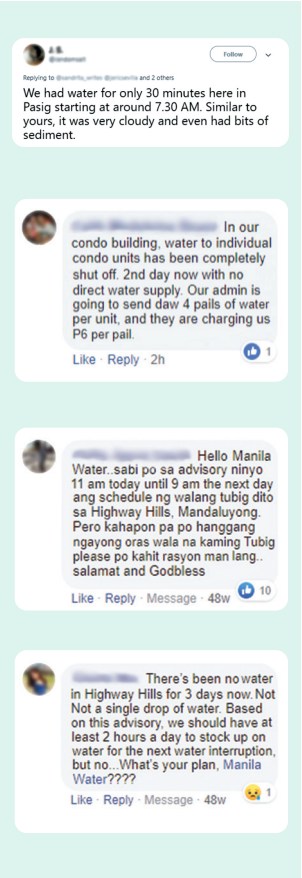
The years 2018 and 2019 were marked by a mild El Niño which caused very little rainfall to replenish Angat, Ipo and La Mesa reservoirs. In fact, 2019 began with the water level in La Mesa at 74.87 meters above sea level, lower by 4.44 meters compared to average end-of year levels in the past decade. The stored water in La Mesa reservoir was rapidly being depleted and in the first week of March 2019, the water level reached an all time low, below the bottom gate of the intakes.

Considering the above, Manila Water developed months ahead a water augmentation and distribution plan, in preparation for the depletion of water in La Mesa, which consisted of:

- Reducing water pressure in many areas to ensure effective distribution of supply.
- Augmenting the raw water supply with rehabilitated and newly constructed deep wells
- Energizing the Cardona treatment plant which will extract water from Laguna Lake

However, Manila Water's contingency plan met unfortunate and unprecedented outcomes. The National Water Resources Board did not approve the application to rehabilitate and install new wells (the approval was only given after the onset of the crisis). The water treatment plant in Cardona, already working on a tight timeline due to late approval by MWSS and with inherent difficulties at the start of construction, saw further delay in its completion due to a breakage in its effluent line despite an aggressive implementation plan.

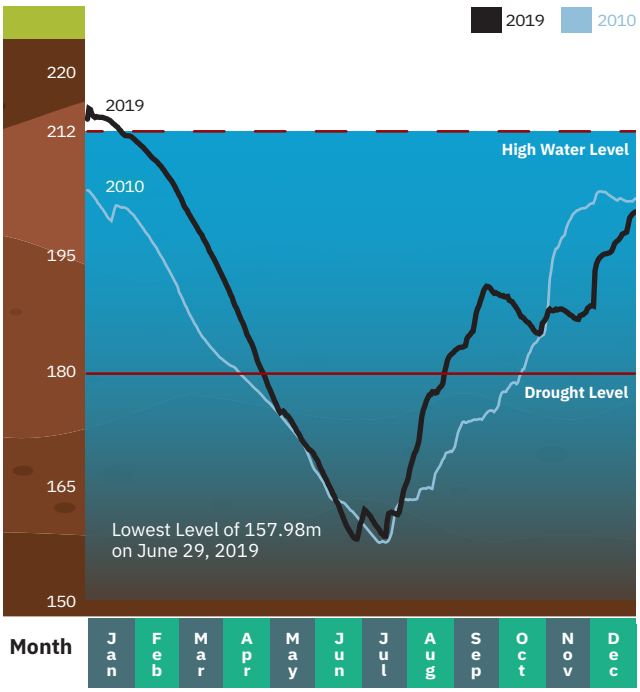
From a customer experience point of view, the crisis was precipitated in the second week of March by the depletion of two distribution reservoirs which caused some areas in the concession to experience 24 hours of no water, particularly in several hard-hit neighborhoods in Mandaluyong and Quezon City.



Customer complaints via social media

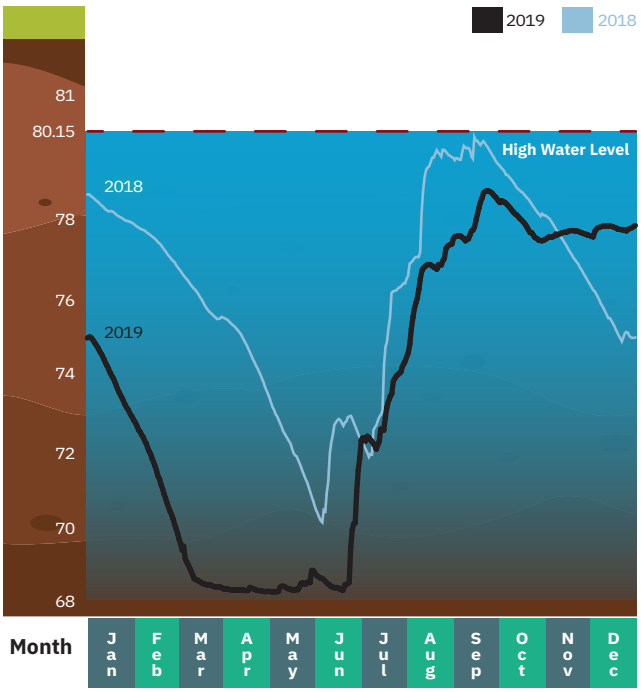
The pila-balde was a common-sight in hard hit areas.

ANGAT DAM LEVELS IN 2010 AND 2019



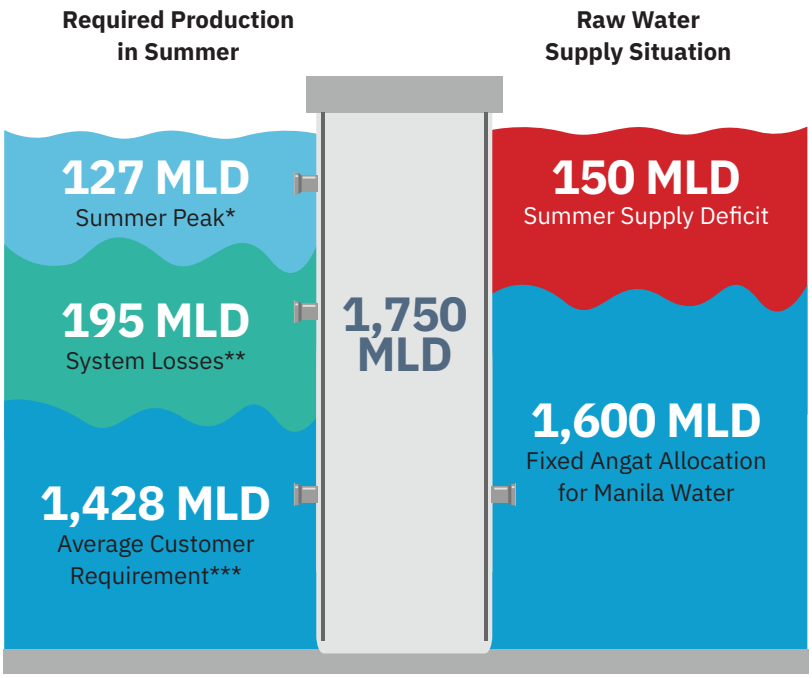
Both 2010 and 2019 saw historical lows of the reservoir water level in Angat. The water level drawdown in the summer months of 2019 was steeper than in 2010, another El Niño year. These indicate intense water withdrawals due to higher demand.

LA MESA WATER LEVELS IN 2018 AND 2019



In the first quarter of 2019, the stored water in La Mesa was depleted due to more intense extraction to address the growing water supply deficit. Compared to the previous year, the lowest level was reached much earlier, at the start of summer.

SUMMER 2019 DEMAND AND SUPPLY SITUATION



Water demand has continuously grown through the years while raw water allocations from the Angat source have remained constant. The summer supply deficit reached a level where stored water in La Mesa reservoir can no longer provide enough buffer.

* Historical 8 percent increase in production for summer peak

** Transmission and distribution losses equal to 11 percent~12 percent of total average production

*** projected billed volume based on approved RR18 business plan

The limited raw water supply from Angat was augmented by water from Laguna Lake upon commissioning of the Phase 1 of the Cardona Water Treatment Plant in March 2019. Phase 2 was completed in August 2019.

HOW MANILA WATER AND ITS PARTNERS RESPONDED TO THE WATER CRISIS

Manila Water's Crisis Management Team (CMT) methodically restored services in a well-coordinated recalibrated implementation plan. Pressure management through network distribution adjustments were done to manage demand and equitably distribute available supply across the entire service area. With improved coordination with government agencies and customers, implementation of supply augmentation projects utilizing the entire pool of contractors were completed on target, restoring the service to almost 24/7 by mid-June and within the regulatory standard of 7 psi.

As the El Niño condition continued with less than normal rainfall, Angat's water levels went down at a faster pace compared to previous years, attaining historical lowest levels. NWRB decided to reduce the allocation to MWSS by 20 percent, from 46 CMS to 40 CMS, further complicating the raw water supply problem not just in the East Zone but in the West Zone as well.

Manila Water's CMT, together with the resilient workforce of the enterprise, and with the support of regulators and other stakeholders, continue to diligently implement its contingency plans. With this, the company is able to achieve and maintain 24/7 water supply despite the reduction in NWRB allocation.

The following are the key actions taken by the company to restore water services to customers, with support from key stakeholders:

Pressure Management

Manila Water's immediate actions when the widespread imbalance in the distribution system occurred was to adjust the operating pressures across the more than 1,800 district metering areas (DMA). Pumping stations adjusted their outputs and network managers reverted to the manual yet complex system of manipulating more than 400 valves across the network to make daily real time adjustments in flow depending on reported experiences from customer kasanggas. More than 60 line boosters were installed so that water can reach the farthest and highest places in the network.

"Pressure management through network distribution adjustments were done to manage demand and equitably distribute available supply across the entire service area."

The dataloggers installation project, originally meant for managing non-revenue water by monitoring flowrates in the DMAs in real time, was re-scoped to monitor water pressure at benchmark customers in each DMA, especially in hard hit areas, thus helping provide better situational awareness and augment the information from the walk-the-line efforts of territory managers. A welcome and unexpected development in the pressure reduction initiative was the attainment of non-revenue water to an historical low of 7.5 percent which meant additional water recovered for customers to use.

Supply Augmentation with Deep Wells

Setting aside environmental arguments against using groundwater, and with the endorsement of MWSS and NWRB, the DENR secretary himself approved the construction of new deep wells on top of the rehabilitation of old MWSS wells in order to augment the water coming from Angat during the summer season. The Manila Water CMT deployed a team of project managers and vendors to rehabilitate old wells, and construct and energize new wells with 55 MLD capacity in strategic areas in the East Zone.

Energization of the Cardona Water Treatment Plant

Manila Water commissioned in mid-March the first phase of the Cardona water treatment plant with a production capacity of 50 million liters per day, attaining full production in early May. Originally meant for the expansion areas in the lakeshore towns of Rizal, the water produced was diverted via an 'atras' line, laid in 2018, to augment the supply to the central distribution system. Phase 2 of the Cardona Water Treatment Plant with a further 50 MLD in capacity was completed in August, realizing the 100 MLD full supply capacity for the customers.

Cross Border Flows from Maynilad

Maynilad expressed support in providing cross border flows to Manila Water in the early days of the crisis, promising as much as 50 MLD. However, the maximum flow attained was only 15 MLD. As Angat levels dropped further at the height of the dry season, Maynilad also had its own supply crisis which led to the suspension of cross border flows.

Preparation of Medium and Long Term Water Sources

Given the current outlook on the Kaliwa and Laiban Dam completion dates due to issues in procurement, environmental permitting and social safeguards, the MWSS reconsidered and approved the projects proposed by Manila Water in previous rate rebasing exercises, particularly the Tayabasan Dam (Calawis) project and the Laguna Lake East Bay water supply project. The Laguna Lake Development Authority endorsed these projects as well, acknowledging in its recently completed master plan that the freshwater lake is a potential water source for Metro Manila and adjacent provinces. By the end of 2019, MWSS also approved a supply augmentation initiative that will utilize Marikina river as an alternative water source.

To augment the limited water supply from Angat, Manila Water secured permission to rehabilitate old deepwells and construct new ones.

Line boosters were installed at certain points to ensure that water reached the farthest and highest areas in the distribution network.

The new Operations Monitoring Center provides 24/7 situational awareness through instruments installed across the network and facilities.

Responsible Use of Water Campaign

Manila Water, together with the leadership of NWRB, MMDA DPWH and local government units, developed an information, education and communication campaign to encourage the general populace to help conserve water by using water wisely and implement water efficiency measures in the household, leveraging on social media as a platform for engagement.

LEARNING FROM THE CRISIS

The water crisis that started in 2019 was an eye opener for Manila Water and its stakeholders. While water supply had been repeatedly identified as a top risk, the company's efforts towards improving operational resilience has been inadequate to prevent the onset of an incident which caught everybody off guard, propelling action at the national and local levels. There is an imperative to do better.

- Manila Water has to improve on comprehensive risk assessment on water supply as a company top risk, and better processes in identifying and addressing black swans, anchored on precautionary principle/approach.
- Manila Water needs to improve on better relationship management and more aggressive coordination with government agencies to ensure full support and co-ownership of execution plans especially on water security and water conservation.
- Manila Water needs to improve on project implementation, focusing on execution risks, particularly on technical solutions and stakeholder management.
- Manila Water needs to work at strengthening inter-stakeholder operational protocols, address institutional bottlenecks and ensure focused decision making.
- Manila Water needs to strengthen crisis management protocols with extra focus on comprehensive communication plans for all stakeholders before, during and after incidents
- Manila Water needs an improved organizational design that focuses on clarity of core responsibilities, enhanced interdependencies and shared accountabilities, and a retooling of the workforce to enhance competencies and clarify deliverables to internal and external customers.
- Manila Water needs to adopt leaner but comprehensive business processes that ensure fast decision making and better coordination
- Manila Water needs to develop and strengthen water conservation, not just water efficiency, as a discipline and advocacy.

Even if the company has managed to restore service to 24/7 but at lower pressures, the fact remains that Metro Manila's water security is still on edge until the next big water source is completed by the water security agency. In the meantime, Manila Water keeps looking for ways to reduce losses, improve operational efficiency, deliver the MWSS-approved medium term water sources, and engage the regulators and the public in a continuing discussion of the real water situation to encourage water conservation at the community and personal levels.

Manila Water understands that water crises are not solved by stakeholders working in silos. More than ever, it is the strengthening of partnerships – through constant communication, shared information, co-management of risks and alignment of resources – that will deliver improved water security and better service in the future. The company's partnerships and relationships with partners and customers have repeatedly weathered crises, and Manila Water is hopeful that ongoing efforts will regain stakeholder trust.

"strengthening of partnerships, through constant communication, shared information, co-management of risks and alignment of resources, which will deliver improved water security and better service in the future"

Wastewater Issues in the Manila Concession

In 2019, allegations of mismanagement of wastewater treatment in Metro Manila surfaced in public discourse, claiming that Manila Water has not invested in wastewater infrastructure despite collecting sewer fees from customers in advance, and that Manila Water did not comply with Republic Act No. 9275 (the Philippine Clean Water Act of 2004) thus contributing to pollution in the city.

This article intends to clarify the case pending before the Supreme Court and highlight Manila Water's accomplishments on matters related to its wastewater service obligation under the Concession Agreement.

ON THE SUPREME COURT CASES ON MANILA BAY CLEAN UP AND SEWER COVERAGE

There are two distinct court cases of interest: (1) Metropolitan Manila Development Authority, et. al vs. Concerned Residents of Manila Bay[1] (the "Manila Bay Mandamus Case") and (2) Manila Water Company, Inc. vs. the Secretary of Environment and Natural Resources, et al. (the "DENR PAB Case").

The Manila Bay Mandamus Case stemmed from a Petition for Mandamus filed in 1999 by the Concerned Residents of Manila Bay at the RTC of Imus, Cavite seeking to hold the relevant government agencies, which includes the MWSS, jointly and/or solidarily liable and to order them to clean up Manila Bay and to restore its water quality to class B waters fit for swimming, skin-diving, and other forms of contact recreation.

The case reached the Supreme Court and in December 2008, the Supreme Court rendered a landmark decision agreeing with the complainants, asserting the rights of future generations to a clean environment and strengthening the expectation on the government in ensuring environmental sustainability. The Court issued a continuing mandamus on the concerned agencies to rehabilitate Manila Bay and provide quarterly accomplishment reports. In the execution phase of the Manila Bay Mandamus Case, the Supreme Court created the Manila Bay Advisory Committee (MBAC), tasked to receive and evaluate quarterly progress reports on the activities undertaken by the various mandamus agencies in compliance with the Supreme Court's decision. Through the MBAC, a set of key performance indicators and compliance timelines were agreed on which formed as the basis of the quarterly reports.

Acting on the recommendation of the MBAC, the Supreme Court issued a Resolution on February 15, 2011 ordering, among others, the MWSS to submit a list of areas in its franchise area which do not have the necessary wastewater treatment facilities and specified that the concessionaires of the MWSS are to submit their plans and projects for the construction of wastewater facilities in the said area the completion of which shall not go beyond 2037.

Manila Water was not a respondent in the Manila Bay Mandamus Case. However, the ramifications of the Supreme Court decision on Manila Bay prompted MWSS to redefine the wastewater targets of the concessionaires, leading to the extension of the Concession Agreement by an additional fifteen years to mitigate the tariff implications of such a massive capital investment on wastewater infrastructure.

The DENR PAB Case, on the other hand, was filed in 2009 by regional directors of the DENR Environmental Management Bureau against MWSS and the

Wastewater treatment before discharging to the river system

[1] G.R. Nos. 171947-48 dated December 18, 2008 with subsequent Resolution issued on February 15, 2011.

two concessionaires at the DENR's Pollution Adjudication Board, claiming that the respondents did not comply with the provisions of Section 8 of the Clean Water Act of 2004, which states as follows:

> "**Sec. 8**. Within five (5) years following the effectivity of this Act, the agency vested to provide water supply and sewerage facilities and/or concessionaires in Metro Manila and other highly urbanized cities... shall be required to connect the existing sewage line found in all subdivisions, condominiums, commercial centers, hotels, sports and recreational facilities, hospitals, market places, public buildings, industrial complex and other similar establishments including households to available sewerage system."

In response, Manila Water provided details of its compliance with Section 8 of the Clean Water Act of 2004 and reiterated its position that the construction of sewerage facilities to cover 100 percent of customers in its service area should be within the context of the Manila Water's concession agreement with the MWSS.

The case reached the Court of Appeals, and eventually the Supreme Court. The Supreme Court rendered a decision in August 2019 upholding the decision of the trial court and the Court of Appeals and finding the MWSS and Manila Water jointly and solidarily liable for a total amount of ₱921,464,184 covering the period May 7, 2009 to date of promulgation (August 6, 2019). The Court likewise imposed a fine in the amount of ₱322,102 per day subject to further 10 percent increase every two years as provided for under Section 28 of the Clean Water Act, from finality of the Decision until full compliance with Section 8 of the said law.

Manila Water filed its Motion for Reconsideration in October 2019. To date, the Motion for Reconsideration remains pending.

ON THE MATTER OF MANILA WATER'S WASTEWATER SERVICE TARGETS

The sanitation and sewer coverage targets of Manila Water have evolved through the various rate rebasing exercises, influenced by changes in legislation and jurisprudence which were not anticipated in the bid terms set in 1997, particularly the issuance of the Clean Water Act in 2004 and the Supreme Court's 2008 continuing mandamus for the cleanup of Manila Bay. The high court's decision in the Manila Bay Mandamus Case prompted MWSS to extend by 15 years the concession to 2037, in order to mitigate the massive tariff impact to the customer. Manila Water has a master plan consisting of several wastewater projects across the rest of the concession period to deliver full coverage. All wastewater investments in the pipeline regularly undergo review and approval by the MWSS regulatory office.

"All wastewater investments in the pipeline regularly undergo review and approval by the MWSS regulatory office."

Evolution of MWSS-approved wastewater service targets during the rate rebasing exercises and when the concession was extended

Service Obligation adjustment exercises	End of Concession	Sanitation (Septic Tank Desludging) Target	Sewer Coverage End of Concession Target
RR 2003	2022	92%	8%
RR 2008	2022	100%	55%
CA extension (2009)	2037	100%	100%
RR 2013	2037	100%	100%
RR 2018	2037	100%	99%*

* MWSS approved non-coverage of certain areas in the East Zone (informal settler areas scheduled for relocation activities) in recognition that investments in those areas would be imprudent

ON THE MATTER OF MANILA WATER'S WASTEWATER ACCOMPLISHMENTS AND PLANS FOR THE FUTURE

Since the year 2000, Manila Water embarked on a series of wastewater infrastructure projects which were intended to expand service coverage on top of the already existing wastewater facilities inherited from MWSS in 1997, such as the various communal septic tanks of public housing estates and the Magallanes sewage treatment facility which was built by the developer of Makati in the 1960s (when it was not even required by law) and turned over to the MWSS long before privatization.

Under the World Bank-funded Manila Second Sewerage Project (completed 2005) and Manila Third Sewerage Project (completed 2013), new sewage and septage treatment plants were constructed, resulting in more than doubling the total treatment capacity. Communal septic tanks were converted to full treatment facilities, sewer lines were rehabilitated and laid, and desludging trucks of various sizes were acquired.

For the Manila Third Sewerage Project, the combined sewer drainage approach was adopted in order to accelerate the capture and diversion of untreated or partially treated wastewater towards treatment facilities, using existing drainage canals and new interceptor lines. Laying down a separate network of sewer lines deep underground would have required a much larger capital investment, taken more years to complete and disrupted road traffic significantly.

Notable wastewater facilities that were completed in recent years are the Liwasan ng Kalayaaan at Kalikasan STP (75,000 cubic meters/day capacity, inaugurated December 2015) and Marikina North STP (100,000 cubic meters/day capacity, inaugurated November 2016), the largest wastewater facilities in the country when they were inaugurated. A third large facility, the Ilugin STP in Pasig with 100,000 cubic meters/day capacity, is undergoing commissioning and due for inauguration in 2020. These large facilities have increased the 1997 wastewater capacity by more than tenfold.

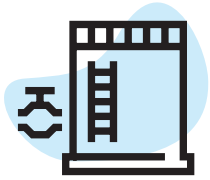
As of the end of 2019, Manila Water operates 38 sewage treatment plants and 2 septage treatment plants in Metro Manila's East Zone, capturing wastewater from 395 km of sewer network and septic tank sludge by a fleet of 64 desludging trucks of various sizes.

From a regulatory perspective, the treated effluents from all wastewater facilities have consistently complied with the discharge limits for Class C water bodies set by the Department of Environment and Natural Resources and the Laguna Lake Development Authority.

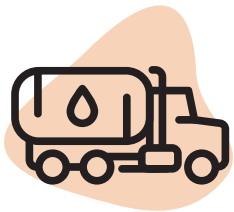
Expanding further on actual environmental impact, in 2019 Manila Water collected and treated 44.91 million cubic meters (MCM) of sewage and septic tank sludge, translating to 6.3 thousand tons of organic pollution diverted from Metro Manila's rivers (measured as biochemical oxygen demand), thus avoiding the emission of methane gas equivalent to 37,228 tons of carbon dioxide.

IN THE EAST ZONE CONCESSION, MANILA WATER OPERATES:

38
Sewage treatment plants



2
Septage treatment plants



64
Desludging trucks of various sizes

FOR 2019

44.91
million cubic meters of wastewater treated

6,302
Tons of organic pollution diverted from Metro Manila's rivers translated

37,228
Tons of CO_2 (eq) emissions avoided due to wastewater treatment

WASTEWATER TIMELINE

Environmental Cases	YEAR	Manila Water's Wastewater Story
	1997	MWSS turns over to Manila Water a working STP (Magallanes), one desludging truck and dozens of communal septic tanks. MWSS also turned over the Manila Second Sewerage Project (MSSP) for the concessionaire to continue implementation
Atty. Antonio Oposa files a case against government agencies for the degradation of Manila Bay	1999	
	2000	Manila Water starts constructing new sewerage infrastructure
Clean Water Act signed into law	2004	
	2005	Manila Second Sewerage Project (MSSP) completed (27 STPs)
	2007	Manila Water inaugurates South Septage Treatment Facility, the biggest in Asia
Supreme Court issues the landmark continuing mandamus for the rehabilitation of Manila Bay	2008	
DENR EMB files case at the PAB, against MWSS, Manila Water and Maynilad for violation of Section 8 of the Clean Water Act	2009	
	2010	MWSS extends the Concession Agreements to 2037 in response to the Supreme Court mandamus to complete sewer coverage
Supreme Court issues subsequent order confirming MWSS 2037 target for sewer infrastructure completion	2011	
Court of Appeals issues decision siding with DENR on the PAB Case	2012	
	2013	Manila Third Sewerage Project completed (6 STPs, 2 STPs)
	2015	LKK STP inaugurated, the biggest in the Philippines at the time
	2016	Marikina North STP inaugurated, the biggest in the Philippines, surpassing size of LKK
Supreme Court issues decision agreeing with the Court of Appeals ruling on the PAB case, enforces penalty on MWSS, MWCI and MWSI. Motions for reconsideration are submitted.	2019	

40 OPERATIONAL WASTEWATER FACILITIES IN THE MANILA CONCESSION


2005
Makati Pabahay
600 m³/day


2007
Diego Silang
3,575 m³/day


2005
Karangalan 1
931 m³/day


2005
A Luna
2,200 m³/day


2005
Karangalan 2
1,193 m³/day


2010
Olandes
10,360 m³/day


2011
Makati Poblacion
11,026 m³/day


2005
Pagasa
685 m³/day


2005
Karangalan 3
764 m³/day


2005
Belarmino
1,640 m³/day


2009
Kapitolyo/Pineda
4,000 m³/day


2011
Pinagsama
6,115 m³/day


1964/1997
Makati South (Magallanes)
40,000 m³/day


2005
Taguig North/ LKK
75,000 m³/day


2005
Fisheries
400 m³/day


2005
Karangalan 4
1,265 m³/day


2005
Kalayaan
4,414 m³/day


2010
East Avenue
16,710m³/day


2000
Valle Verde
160 m³/day

2007
South Septage (FTI)
2,814 m³/day


2013
Road 5
3,537 m³/day


2005
Centennial
1,277 m³/day


2005
Karangalan 5
577 m³/day


2005
Karangalan 6
504 m³/day


2005
Bagong Lipunan
1,359 m³/day


2005
Maharlika
470 m³/day


2007
North Septage (San Mateo)
586 m³/day


2005
Karangalan 7
764 m³/day


2005
Palosapis
1,500 m³/day


2005
Lakeview
513m³/day

2005
Mandaluyong MRH
287 m³/day


2005
Karangalan 8
968 m³/day


2005
Sikatuna
609 m³/day


2005
Heroes Hill
1,700 m³/day

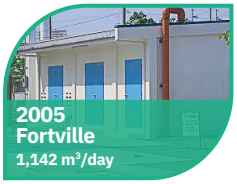

2005
PhilAm
2,069 m³/day


2015
Marikina North
100,000 m³/day


2004
UP
7,014 m³/day


2005
Karangalan 9
777 m³/day


2004
Guadalupe
851 m³/day


2005
Fortville
1,142 m³/day

Manila Water has proposed a dozen more projects in the pipeline to complete wastewater coverage in the East Zone concession, in addition to retrofitting operational facilities for the ability to remove nutrients in effluent. The latter is in response to a new set of effluent standards imposed by the Department of Environment and Natural Resources (DENR DAO 2016-008) to help reverse the degradation of water bodies such as Laguna Lake which suffers heavily from algal blooms and eutrophication, and help realize the rehabilitation, protection and enhancement of the Manila Bay ecosystem.

Fulfilling the wastewater commitments of Manila Water is heavily dependent on the support of national and local government agencies, as well as the customers themselves. Wastewater infrastructure projects are dependent on the timely acquisition of land and rights of way, and despite provisions in the Clean Water Act requiring local government units to provide land for sewer treatment plants, most of the time land has to be purchased or expropriated from government or private owners. Laying down or rehabilitating sewer lines inevitably causes traffic disruption and various inconveniences to the public. And with full cost recovery as a key financial mechanism in the concession, the customers have to eventually pay the bill in protecting the environment. Ultimately, the traditional indifference and ignorance on sewerage and sanitation, the 'not in my backyard' attitude and the lack of acceptance of the 'polluter pay principle' need to be overcome so that public and personal support to the environmental sustainability of communities is ensured.

In spite of the execution and legal challenges on the wastewater part of the business, Manila Water will continue to strive in expanding its capacity to capture more pollution and contribute to the cleanup of the city's waterways and Manila Bay, consistent with its often repeated mantra of having a 'mission to fulfill, not a business to run.'

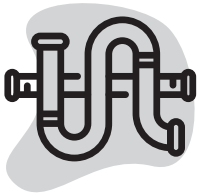
ON THE MATTER OF CLAIMS OF OVER-COLLECTION IN SEWER AND ENVIRONMENTAL FEES

The MWSS Concession model allows for full cost recovery of investments and expenses in the course of delivering on their service obligations in both water and wastewater. The MWSS uses prudency and efficiency tests to determine which expenses are allowed to be recovered. By design, full cost recovery occurs only at the end of the concession period, and tariffs are adjusted by the MWSS Regulatory Office every five years to incorporate past and future expenditures as the business plans are recalibrated to adapt to external developments which redefine asset standards and operating targets. Examples of these developments were the acceleration of wastewater service coverage target to 100 percent imposed after the Manila Bay Mandamus Case, and the revised effluent standards of 2016.

From the start of concession until the end of 2019, Manila Water has invested a total of ₱33.44 billion in constructing new wastewater treatment plants, laying new sewer lines, refurbishing existing infrastructure and acquiring movable assets such as desludging trucks. It has also spent a total of ₱10.12 billion in operating expenses which include manpower, electricity, chemicals, regulatory environmental user fees, and ancillary services such as sludge disposal and water quality testing.

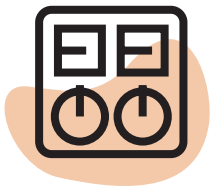
As of the end of year 2019, Manila Water has collected a total of ₱40.65 billion in sewer and environmental charges. This figure is regularly reported to MWSS which consolidates the data with the other concessionaire for its quarterly submittal to the Supreme Court.

SINCE 1997



₱33.44 B

Invested in constructing new wastewater treatment plants, laying new sewer lines, refurbishing existing infrastructure and acquiring movable assets such as desludging trucks



₱10.12 B

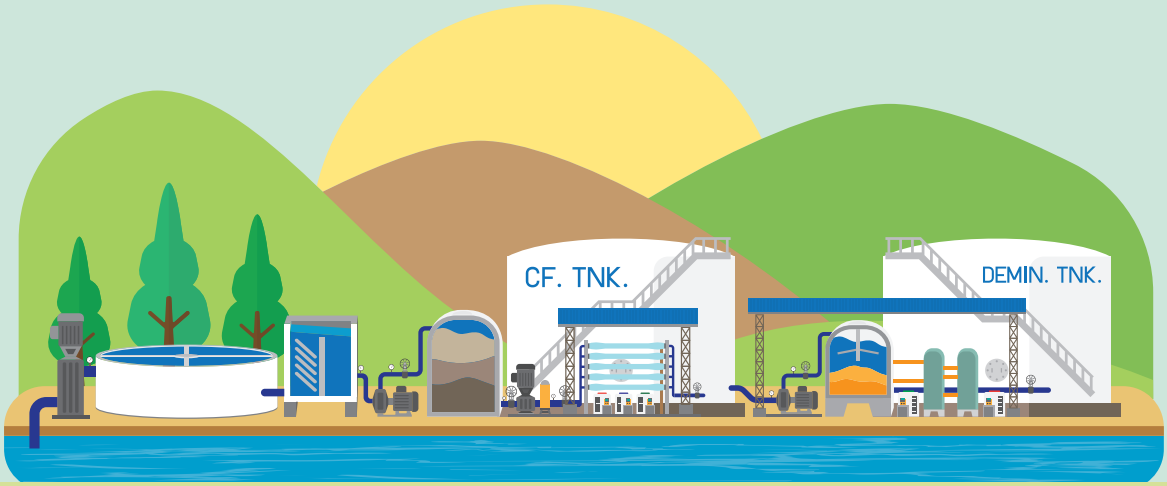
Spent in operating expenses which include manpower, electricity, chemicals, regulatory environmental user fees, and ancillary services such as sludge disposal and water quality testing

₱40.65 B

Collected in sewer and environmental charges

2019 ESG and Financial Highlights

ENVIRONMENTAL



SOCIAL

GOVERNANCE

0.6% improvement

9%
Enterprise-wide non-revenue water

47.7%

13,440 tons
Organic pollution load (as BOD) removed by wastewater treatment

2.8%

64.16 MCM
Wastewater treated

37.9%

79,085 tons CO_2 (eq)
Carbon emissions avoided due to wastewater treatment

8.1%

1,256 MCM
Potable water distributed to customers

6.3%

1,191,448
Billed water service connections

13.9%

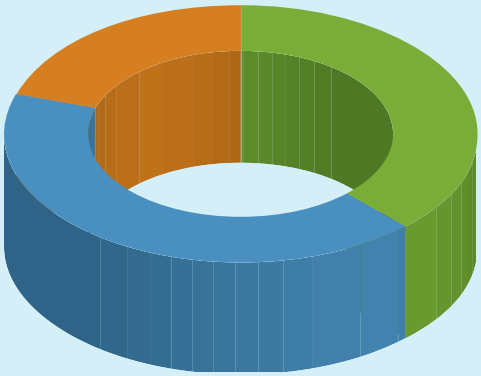
2,412
Workforce

1,578
Male

834
Female

21.8%
Local Public (excluding AC)

51.4%
Ayala Corporation (AC)



26.8%
Foreign Public

Economic Ownership

2019 ESG and Financial Highlights

FINANCIAL

11% **₱21.95 B** Revenues

10% **₱134.6 B** Total Asset Base

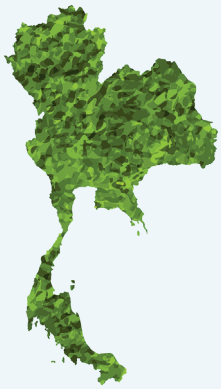
-16% **₱5.5 B** Net Income

26% **₱12.6 B** Capital Expenditures

		Amount in million Php		
		2017	**2018**	**2019**
Economic Value Generated	**Revenue**	18,887.51	20,266.82	22,273.11
Economic Value Distributed	**Operating cost**	4,481.38	5,211.61	7,078.42
	Employee wages and benefits	2,081.64	2,342.74	2,355.25
	Payments to providers of capital	3,679.95	3,792.87	4,325.43
	Payments to government	3,082.86	3,237.64	3,346.47
	Community Investments	31.84	44.27	21.03
Economic Value Retained		5,519.84	5,637.88	5,146.51

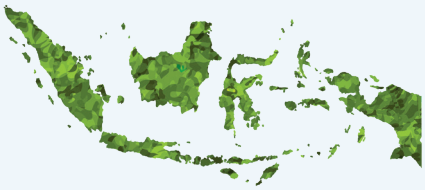
GEOGRAPHIC PRESENCE

THAILAND
through East Water

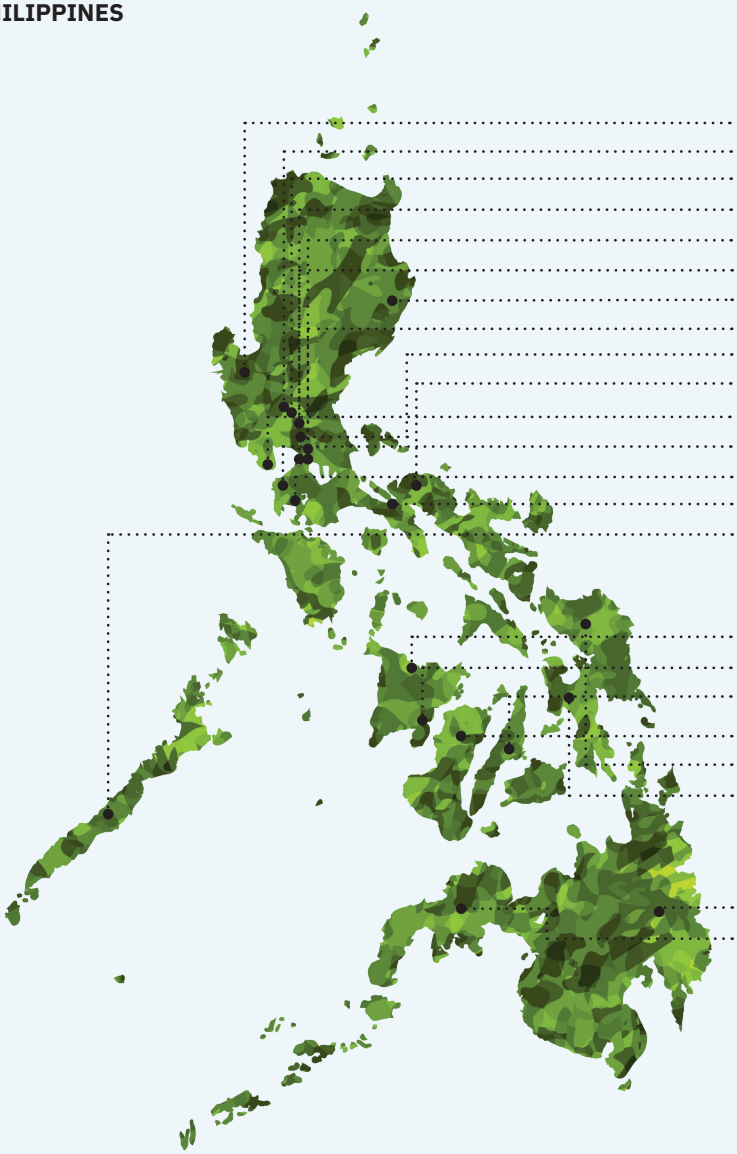


VIETNAM
through Manila Water Asia Pacific

INDONESIA
through PT Sarana Tirta Ungaran



PHILIPPINES



Luzon
- Pangasinan
- Tarlac
- Nueva Ecija
- Pampanga
- Bulacan
- Manila
- Isabela
- Rizal
- Laguna
- Camarines Sur
- Bataan
- Cavite
- Batangas
- Quezon
- Palawan

Visayas
- Aklan
- Iloilo
- Cebu
- Negros Occidental
- Samar
- Leyte

Mindanao
- Davao
- Zamboanga

SERVICES PROVIDED:

- Distribution
- Bulk Water Supply
- NRW Reduction
- Operations and Maintenance
- Pipelaying
- Environmental Services
- Purified Drinking Water

How We Create Shared Value

OUR BUSINESS MODEL

Water Source Development and Management → **Raw Water Transmission** → **Water Treatment** → **Water Distribution** → **Wastewater Treatment** → **Other Services**

Distribution

Boracay Water • Calasiao Water • Clark Water • East Water
Laguna Water • Manila Concession • Obando Water • Saigon Water • Bulakan Water
Sta. Barbara • San Fabian • Lambunao Project

Purified Water

Manila Water Total Solutions - Healthy Family

Bulk Water Supply

Cebu Water • Kenh Dong Water • Tagum Water
Thu Duc Water • PT STU • Ilagan Water

NRW Reduction

Zamboanga Water

Integrated Used Water Services

Manila Water Total Solutions

Engineering, Procurement, Construction Management and Technical Consulting

Manila Water Technical Ventures

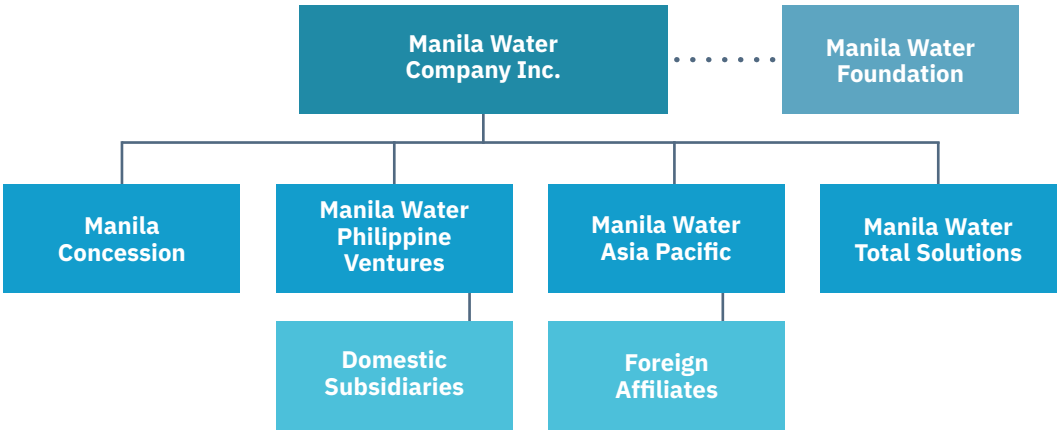
Operations and Maintenance of Water Supply and Wastewater Facilities

Aqua Centro • BMDC • Estate Water

KEY FACTORS AFFECTING PERFORMANCE

- Political and regulatory
- Legal risk
- Water supply adequacy, security, quality and reliability
- CAPEX execution
- Financial risks
- Business continuity
- Compliance risks
- Brand and reputation
- Talent management
- New business operations
- New business development

BUSINESS MANAGEMENT STRUCTURE



Our Capitals

Our Capitals

Financial
Manila Water's financial sustainability relies on the availability and management of the Company's own funds, as well as borrowed funds. Through the combined use of capital inputs, such as share capital, cash reserves and borrowings, the Company can fund infrastructure projects and sustain service delivery.

Manufactured
Manila Water's property, plant and equipment includes well-managed dams and impounding reservoirs, deepwells, water treatment facilities, pumping stations and reservoirs, water distribution and sewer networks and wastewater treatment facilities.

Human
Exponential value is created for and on behalf of Manila Water and the country through its most critical asset: People. In addition to this, human capital includes the Company's suppliers, contractors, consultants and service providers

Intellectual
Collective expertise and process know-how on water treatment, non-revenue water reduction, wastewater treatment, and environmental services.

Natural
Manila Water's business is conducted across diverse ecosystems where it builds and maintains infrastructure, operate equipment and handle water service and wastewater treatment service delivery. The 'natural capitals' in the context of the Company's activities include water abstracted from rivers, dams and aquifers covered by water rights or allocations.

Social and Relationship
Positive stakeholder relations with external and internal stakeholders contribute to business stability and organizational stability for Manila Water.

How We Create Value

Who we are: Identity
Our approach to value creation is founded and driven by our core corporate values: integrity and primacy of the person, dignity of work, pride in excellence, concern for others, and commitment to national development.

At the heart of this is putting a premium on building, strengthening and nurturing partnerships with customers, employees, government and other key stakeholders, ensuring long-term and sustainable provision of water, wastewater and environmental services

What we do: Portfolio

Water Utility Operations
Manila Water provides bulk water, water treatment, water distribution, sewerage and sanitation services to a broad range of residential, semi-business, commercial and industrial customers across the Philippines and Southeast Asia.

Bulk Water Supply
Manila Water delivers bulk water in Metropolitan Cebu Water District , Calasiao Water District, Tagum Water District in the Philippines, and Saigon Water Corporation in Vietnam.

Total Solutions
Manila Water Total Solutions focuses on developing and scaling after-the-meter services with special focus on real estate developers and creating and launching business model innovations. Included in its offerings is Healthy Family purified water, specifically catering to customers who prefer not to drink tap water due to issues in household piping and personal aversion to the taste of residual chlorine as required by law.

Value Created

Financial

₱5.5 B net income

Manufactured

P12.6 B Total capital spent on acquisitions, developments and capital improvements for water and wastewater across the Philippine operations and Manila Water Asia Pacific.

Human

19 female average training hours
20 male average training hours
635 new hires
289 vendors

Intellectual

1 deal closed across the Philippines and Southeast Asia for the provision of water and wastewater services.

Natural

9,263 hectares of protected watersheds across the Philippines
64.16 MCM of wastewater treated
13,440 tons of organic pollution load (as BOD) diverted from water bodies

Social and Relationship

76% Customer Satisfaction
122,053 Lakbayan Participants since 2006
85% Employee Engagement Score

Value Shared

Partnership and Integration
Revitalize and strengthen regional and global partnership for sustainable development to further initiatives on water and environmental investments.

Infrastructure Development
Investments in water and wastewater infrastructures such as sewage treatment plants, and pumping stations, to ensure delivery of reliable water and wastewater services.

Customer-centricity and Community Development
Improve economic, social, and environmental well-being of communities through access to clean and affordable water and sanitation service.

Health and Safety
Improve physical and mental health, and safety of the public and communities where the Company operates in.

Environmental Stewardship
Enhance capacity of the natural environment to meet water supply and other resources needed by present and future generations.

Human Capital Development
Enhance and improve human capabilities and foster job generation and career growth.

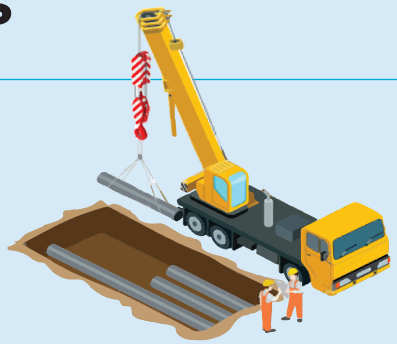
Contributions to the United Nations Sustainable Development Goals

17 PARTNERSHIPS FOR THE GOALS

Cooperating with various stakeholders such as local and foreign governments, academics and specialists, and organizations to realize the Company's mission of creating an exceptional customer experience in the provision of sustainable solutions vital to health and life.

122,053 Lakbayan Participants
24 Local Government Unit Toka Toka Partners
3,658 Elementary Students Engaged and
398 Employee Volunteers for Bawat Patak Tumatatak

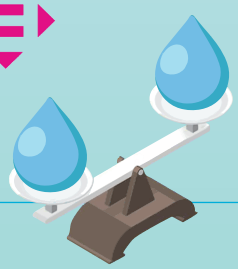
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Building of sewage treatment plants and pumping stations, and laying of pipelines for water and wastewater to ensure delivery of reliable water and wastewater services, across the enterprise.

6 CLEAN WATER AND SANITATION

10 REDUCED INEQUALITIES



Inclusive provision of water and wastewater services to any customer in communities served.

Upholding equal treatment and providing opportunities for all employees regardless of gender, age, ethnicity, sex, disability, religion, nationality, economic and other status.

3 GOOD HEALTH

Guaranteeing water quality as vital to a community's overall health and wellbeing, through consistent compliance with drinking water standards.

1 NO POVERTY

Empowering marginalized communities through the provision of clean, affordable and reliable water supply.

214,187 Tubig Para sa Barangay Connections
475 Lingap Connections

13 CLIMATE ACTION

Climate change adaptation measures aimed at enhancing resiliency of personnel, water sources, infrastructure and operations, while implementing carbon reduction and avoidance measures such as energy efficiency and wastewater treatment.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Fostering environmental stewardship by reducing non-revenue water to average of 9.0 percent across all operations, streamlining production and reducing waste through resource and energy efficiency initiatives.

15 LIFE ON LAND

Watershed management initiatives to ensure water supply sustainability.

9,263 hectares of protected watersheds across operations in the Philippines

Ayala Sustainability Blueprint
Bridging the Filipino to 2030

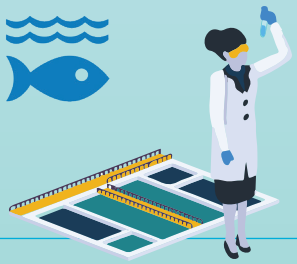
The Ayala Group has adopted a long-term sustainability blueprint at the heart of its corporate strategy. This aims to address critical environmental, social, and governance gaps which affects society today. These contributes on three focus areas: access and inclusivity, productivity and competitiveness, and responsible growth and innovation. In response to the call for access and inclusivity, Manila Water is the group's primary champion in contributing to SDG 6.

1,191,448	8,167,319	64.16 MCM	61
Billed Water Service Connections	Population Served in the Philippines	Wastewater Treated	Wastewater Treatment Plants

11 SUSTAINABLE CITIES AND COMMUNITIES

Providing water supply and wastewater services as an essential element of a sustainable community where people are healthy and productive, the environment is protected and economies thrive.

14 LIFE BELOW WATER



Protecting marine life and potential water supply through treatment of **64.16 MCM** ofwastewater, resulting inthe diversion of **13,440** tons of organic pollution, as Biochemical Oxygen Demand, from waterways.

8 DECENT WORK AND ECONOMIC GROWTH

100% Local Spending
2,412 Total Workforce
289 Vendors as of 2019
0 Fatal Accidents

Delivering Our Strategy

EXTERNAL ENVIRONMENT

Climate change has significantly altered every aspect of the water space – a reality that nations continue to address along with challenges concerning increasing population and density in highly urbanized areas. Competition in the space has been redefined by those who have access to this limited resource; communities, in their pursuit for growth, demand more to the expense of the environment's ability to replenish. This has created a vicious cycle of development being impeded by the lack or absence of water supply to support development. The challenge for governments and service providers is striking the delicate balance between the provision of sufficient water supply for economic growth and social development, and allowing the environment to naturally replenish the water sources to ensure sustainability. Such balance has highlighted the importance of proper wastewater treatment, which supports raw water supply replenishment in the environment.

Manila Water acknowledges the primary importance of water security, particularly during the onset of the water supply shortage in Metro Manila. The experience has underscored the key risks in relation to water security, and the company has taken measures to align its operations with the new realities it now faces. These measures support Manila Water's commitment to the United Nations Sustainable Development Goals (SDGs) on Clean Water and Sanitation.

Manila Water continues to improve access to clean water and sanitation services across all its business units as a response to societal needs. In the Philippines, 90 percent[1] of the rural population already has access to at least basic drinking water services. However, this lags behind the 98 percent access in urban areas. Meanwhile, in terms of sanitation, the country has yet to gain traction in significantly providing access to improved sanitation facilities. At the national level, only 52 percent of the population has access to safely managed sanitation facilities. Through the company's wastewater and sanitation programs, the company directly contributes in narrowing these gaps.

OUTLOOK AND OPPORTUNITIES

Manila Water remains focused on its mission to provide sustainable solutions to its customers. The company continues to strengthen its key operating principles, even in the midst of adversity brought about by social, environmental and institutional challenges.

In response to the water supply shortage in the Manila Concession, the company exerted effort to further attain network efficiencies; the company's business and technical teams learned to effectively provide water to its customers despite lower raw water supply allocation. Equally important is the provision of wastewater services. The company is committed to continue its expansion of sewer coverage while maintaining existing service levels of its sanitation services. This enhanced focus on improving service levels despite the challenges is grounded upon the company's thrust towards creating exceptional customer experience. Over the next three years, water and wastewater projects in the Manila Concession are guided by the approved service improvement plan laid out during the 2018 Rate Rebasing exercise. These projects position the concession towards achieving the service obligation targets in 2037.

Outside Metro Manila, the different subsidiaries exerted efforts to standardize its key operating processes, with the Manila Concession as benchmark. Improvements in transitioning and integrating new businesses, such as introduction of relevant operating and financial systems aligned with Parent Company principles, are cascaded to business units across the enterprise and will likewise continue as the company pursues other projects.

"...enhanced focus on improving service levels despite the challenges is grounded upon the company's thrust towards creating exceptional customer experience."

[1] Joint Monitoring Programme for Water Supply, Sanitation and Hygiene, Estimates on the use of water, sanitation and hygiene by country (2000-2017), April 2019

Enterprise Risk Management

As Manila Water faces greater challenges in the Manila Concession, effective risk management becomes more critical to ensure that the company will be able to fulfill its goals as a leader in the provision of water, wastewater, and environmental services in the country.

Risk management is consistently used as a tool for effective decision-making, planning and operations, resulting to a resilient and agile organization amidst difficulties in its regulatory and physical environment.

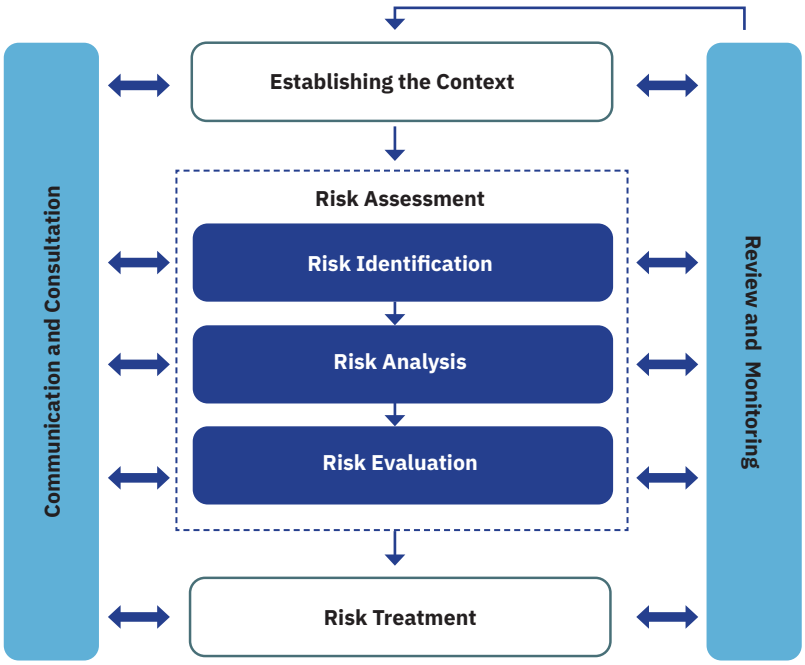
ENTERPRISE RISK MANAGEMENT IN MANILA WATER

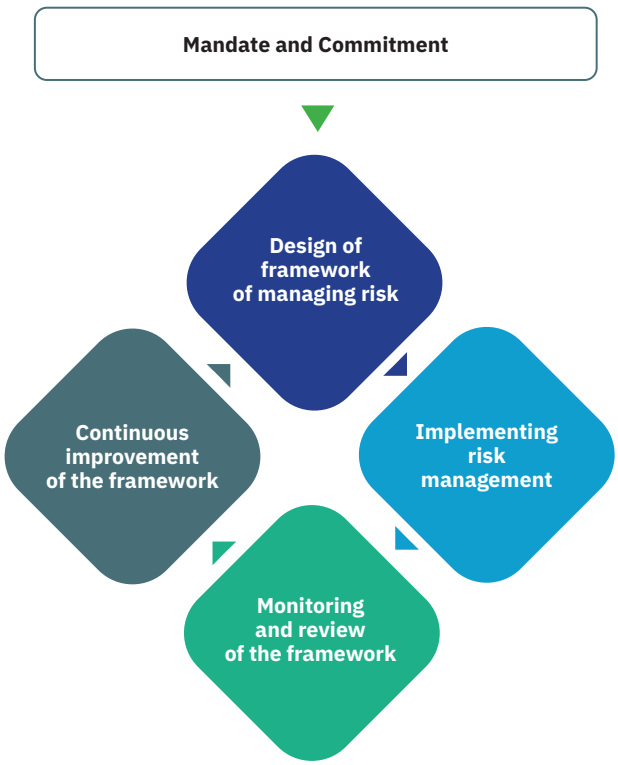
Manila Water operates in a regulated and dynamic business environment where uncertainties, both detrimental and opportune to the Company, abound. The Company is accountable to its regulators, shareholders, employees and customers, among others. Profitability, sustainable development and corporate social responsibility are expected to be continuously enhanced. In order to achieve its corporate objectives, Manila Water recognized the need for the active management of risks inherent to its business which involves the entire organization.

Manila Water continues to implement its Enterprise Risk Management (ERM) Program based on a globally accepted approach, the ISO 31000:2009. The ERM Program has been cascaded to the Manila Water Enterprise which includes subsidiaries and affiliates in Manila Water Philippine Ventures, Inc. (MWPV) and Manila Water Asia Pacific Pte. Ltd (MWAP) to ensure attainment of its objectives.

ERM Strategy Statement
ERM shall aim to integrate risk awareness and responsibility into each level of management activities, and into all strategic planning and decision-making processes within the company.

ERM FRAMEWORK AND PROCESS





The ERM Program operationalizes the Company's Manual of Corporate Governance which mandates the Board of Directors (BOD) to ensure the presence of organizational and procedural controls supported by an effective management information system and risk management reporting system. In addition, the Company's Board Risk Oversight Committee (BROC) provides oversight to management functions relating to strategic, financial, operational, compliance, legal, environmental, social and other risks of the Company. This involves periodic disclosure of significant risk exposures and related risk management activities.

The President is the comprehensive risk executive and is ultimately responsible for ERM priorities, strategies, tolerances and policies. He chairs the Risk Management Executive Committee (RMEC) which is composed of top management and the Chief Risk Officer (CRO).
The RMEC provides oversight and input to the President and to the Board to enable them to formulate better and informed decisions on matters related to risks.
The RMEC provides direction on the design and implementation of appropriate systems, tools and methodologies to support the ERM process and other risk management activities and designates owners of specific risks and enablers of the ERM process (ERM Champions/ Partners/Risk Officers).

The CRO is the ultimate champion of ERM at Manila Water. Supporting the CRO is the Enterprise Risk Management (ERM) Department. It is responsible for developing risk management tools, methodologies and processes. It also leads the implementation and dissemination of ERM across the Manila Water group in coordination with the risk owners, the CRO and ERM Champions/Risk Owners of the business units. With the ERM mindset continuously being assimilated into the Company's culture and practices, ERM has been embedded in the strategic, tactical and execution planning as well as in key-decision making processes including insurance management. Manila Water has a risk-based insurance program wherein coverage considers relevant risks and existing controls in place.
The integration of ERM with insurance management ensures that insurance provisions in contracts are custom-fit to respond to specific project risks.

The risk management system of Manila Water is reviewed and assessed annually by the Internal Audit Department using a risk maturity assessment framework aligned with global best practices to determine the system's adequacy, suitability and effectiveness.
Manila Water is subjected to external assessment every three (3) years.
The last external assessment of Manila Water Company's ERM maturity was conducted by Ayala Corporation through Aon Philippines in 2018.

ERM STRUCTURE

Oversight: Risk Management Activities, ERM Policy and ERM Framework	Risk Governance	Risk Accountability: Manager Risk at Source	Transactional Risk Management: Embedding risk management at critical processes	Audit: Assess effectiveness of risk management activities; compliance with framework, maturity level
Board of Directors	Risk Management Executive Committee	President	Operations	Internal Audit
Board Risk Oversight Committee	Chief Risk Officer/ERM Department	Group Director	Capital Project	
	Various Risk Sub-committees	Department Head	Regulatory and Compliance	
			Treasury	
			New Business Development	
			Business Resiliency	
			Asset Management	

2019 ERM HIGHLIGHTS

The following activities were carried out to improve the Risk Management System of the Manila Water Enterprise:

Maintenance of Quality Management System for Insurance Management.

As an affirmation of adherence to global best practices, ERM Department's Insurance Management Section successfully passed its ISO 9001:2015 surveillance audit.

Insurance Renewal and Optimization.

ERM Department was able to enhance the insurance coverage of various lines which resulted in savings.

MANAGEMENT OF TOP ENTERPRISE RISKS

The Risk Management Executive Committee (RMEC), composed of Manila Water Company's Management Committee and the Chief Risk Officer (CRO), which determines the most significant risks facing the Company. Management of Top Corporate Risks, which have been mapped up to the department level, and was delegated to the appropriate Risk Owners.

For Manila Water Philippine Ventures and Manila Water Asia Pacific, the RMEC is composed of the President/Chief Operating Officer, Leadership Team and the CFO/CRO.

Risk Owners formulate and commit to a risk management plan, monitored by the ERM Department, which defines specific action points, accountability and timeline. The status of the Top Enterprise Risks is regularly discussed at the RMEC and is reported to the Board Risk Oversight Committee.

2019 Top Enterprise Risks	Mitigation Strategies
POLITICAL AND REGULATORY Failure to manage political and regulatory stakeholders which can lead to revision or termination of the Concession Agreement.	Manila Water proactively participated and advocated with the MWSS for the passage of Concession Accounting and Auditing Guidelines (CAAGs) and Technical Audit Guidelines (TAGs). A more stringent monitoring was done on the delivery of service obligations among groups internally to ensure compliance and prevent issues. Kept open lines of communications and engaged with various stakeholders to provide clarifications on compliance to service obligations, strengthen relationship, and advocate for matters relating to the validity and protection of the Concession Agreement & its financial viability. Proactively prepared and participated in legislative proceedings and various fora and conferences of industry organizations to stand for the truth on the operational efficiency & performance of Manila Water and avert its being muddled with fake news and false information.
LEGAL RISK Failure to secure a favorable Supreme Court resolution regarding the Clean Water Act issue which can lead to termination of the Concession Agreement.	Filed the Motion for Reconsideration (MR) for the unfavorable Supreme Court Decision imposing penalties. Coordinated and aligned with MWSS and Maynilad on arguments and issues to raise prior to the filing of the MR. Strong and responsive information/clarification and communication initiative (social media) with due consideration to the *sub judice* rule (which means that when a matter is before the court, it should not be discussed in other fora)
WATER SUPPLY • Failure to ensure adequacy, security, quality and reliability of water supply. • Inability to provide East Zone customers with 24-hour water with at least 7psi	All existing sources are maximized including Cardona Treatment Plant. Continuous effort to secure the 40 percent allocation at the portal. Building additional capacity from new immediate term water sources. For 2019, Manila Water built additional capacity of over 100 MLD (Cardona Treatment Plant and deep wells). Extensive pressure management and network reconfiguration practiced to equitably distribute limited supply of water.
CAPEX EXECUTION Failure to execute CAPEX plan per Approved Business Plan on a timely manner and cost basis leading to MWSS Regulatory Office (RO) tariff claw back and non-recoverability of expenses.	Initiated and implemented **Project Ark**. Project Ark is a cross-functional and comprehensive program aimed at identifying gaps and implementing critical changes targeted to improve CAPEX delivery. The program targeted core CAPEX processes, policies, tools, and structures critical to being able to fast-track our water supply and wastewater commitments and meet the **2019-2022 CAPEX target of ₱86 billion**. **Ark 1.0 (Phase 1)** includes improvement in the CAPEX organizational structure and delivery strategy by (a) creating a more aligned and streamlined project team structure within Corporate Project Management Group (CPMG), (b) maximizing technical talents in the organization by decentralizing project execution, (c) establishing the Strategic Procurement and Supply Chain Group to allow for a more flexible and targeted approach to procurement, (d) implementing a more structured and holistic approach to land acquisition, and (e) applying a more efficient revised approval process. **Ark 2.0 (Phase 2)** specifically targets process improvements, aimed at further improving end to end CAPEX delivery by reducing touch points and cycle times across all critical processes. This sub-program aims to improve CAPEX throughput by utilizing workflows, automation, reports, and dashboards to improve visibility and streamline coordination across all units. Ark 2.0 is currently ongoing and is expected to be completed by June 2020. Continued to embed more effective risk identification and management in all processes, standardizing to the appropriate measure to deliver projects aligned with targeted timeliness, cost, safety and quality, and documented effectively to align with the CPMG Quality Management System and MWSS RO guidelines.

2019 Top Enterprise Risks	Mitigation Strategies
FINANCIAL RISKS ***Liquidity Risk*** • Failure to pay obligations in a timely manner resulting to fines and penalties or loan default. ***Loan Default Risk*** • Failure to make the required payment on debt obligation	Various initiatives have been implemented to ensure that the company is able to mitigate liquidity risk. Reduction in OPEX and streamlining of CAPEX are some of the cash conservation strategies that the company undertook. Focus was likewise given to tighter and more efficient liquidity planning and monitoring which includes better disbursement oversight and raising new sources of funds. Proactively managed relationship with its lenders by ensuring that they are updated on the various corporate developments in Manila Water. The company held several lenders' briefings where Manila Water's management discussed and clarified various news reports and updated partner banks on the status of its operations and other legal matters (e.g. review of the Concession Agreement). Timely payment of debt maturities and submission of loan compliance requirements are also strictly observed to ensure compliance with loan provisions/covenants.
BUSINESS CONTINUITY ***Operational Risk*** Failure to ensure immediate recovery and continuity of business operations through execution of a comprehensive business continuity management plan.	Continuous improvement of Manila Water Business Continuity Management, which is composed of risk reduction and management, incident management, business continuity planning Completed resiliency and business interruption study and implemented projects covering earthquake, typhoon, flooding and fire. This includes retrofitting facilities and activating emergency online reservoirs and deepwells. Improve monitoring and alert systems through the strengthening of the Operations Monitoring and Control Center. For incident management, acquired contingency vehicles and 40 business continuity responders.
COMPLIANCE RISKS ***Regulations Compliance*** • Water Supply Quality - Failure to ensure quality of water based on PNSDW Standards • Wastewater Operational Compliance - Failure to meet regulatory commitments particularly on effluent compliance to DENR standards ***Rate Rebasing Commitments Compliance*** • Failure to deliver rate rebasing commitments leading to claw back in tariff and non-recoverability of expenses.	For existing water sources, adherence to Water Safety Plan is practiced. For Deepwell (as new water source), its operations and maintenance is further established and is augmented by partner service providers To address root cause of the risk which is the lack of control over the quality of the influent received at the plants, Manila Water: • Exercises ongoing effort to influence MWSS on pre-treatment standards • Continues to lobby for laws and ordinances, leveraging on the Manila Bay Rehabilitation Plan. Traction was gained in 2019 as evidenced by Manila Water's active participation in the Manila Bay Task Force Regional/Cluster Meetings Timely submission of reports and responses to letters of inquiries from MWSS (RO, CO and Board of Trustees) Strict implementation of Asset Management Plan for asset renewal or asset improvement to avoid non-conformance in operating results particularly in Wastewater Facilities. Stringent review of the Key Performance Indicator and Business Efficiency Metrics. Internally assessed the alignment of CAPEX accomplishment using the Technical Audit Guidelines and the components of Opening Cash Position using Concession Accounting and Auditing Guidelines.

2019 Top Enterprise Risks	Mitigation Strategies
BRAND AND REPUTATION Failure to maintain Manila Water's stature as a company which may result in significant difficulty in creating and/or maximizing value for all stakeholders and may affect the ability to execute growth plans, affect employee morale and the ability to attract talents.	Brand-building initiatives are in place to strengthen internal and external stakeholder engagement. A steady stream of positive news in traditional and non-traditional media channels are published regularly to highlight company accomplishments, alongside goodwill programs and partnerships with TV, radio and print media. Equal attention is also given to maximizing online presence through social media channels and website. Programs promoting Information, Education and Communication (IEC) of the company's advocacies as well as collaboration with key stakeholders on agreed areas of synergy are also implemented.
TALENT MANAGEMENT ***Talent Capacity*** • Failure to provide ready succession into critical roles and retention of critical people and teams. • Failure to maintain organization size required and to define clear accountabilities required to deliver. ***Team and Organizational Connection*** • Failure to apply big picture thinking to support organizational success – seeing the impact of one's action, output and behavior to peers, other teams, and the bigger organization; siloed thinking • Failure to recognize the changing workforce profile and values	A robust succession plan is in place to ensure a strong pipeline for critical roles. The Technical Development Curriculum has been developed in partnership with the Operations Subject Matter Experts to ensure that the Company further strengthens and sustains the technical capabilities within the organization. This is complemented by the Core and Leadership Development Programs offered to talents to foster a values-based and institutionalized ways of working across all levels and roles.
NEW BUSINESS OPERATIONS Failure to operate new businesses properly as a result of poor integration, planning and execution.	The Subsidiary Operations Group (SOG) was created to oversee all operating subsidiaries. It is headed by a Group Director who directly supervises the General Managers of the subsidiaries to enforce functional standards across the business units. Under SOG supervision, transition teams are created to properly implement integration activities as new businesses transition from development phase to operating stage.
NEW BUSINESS DEVELOPMENT Failure to launch significant new businesses to meet current and future business objectives.	Regional Business Development with different leadership teams are in place to handle business development and look for business expansion opportunities in their respective areas. Manila Water's review framework of new business projects includes risk assessment and is a critical component in the business development and approval process. The risk profile of the project is considered in the determination of the cost of capital.

Report of the Board Risk Oversight Committee to the Board of Directors

For the year ended December 31, 2019

The Board Risk Oversight Committee ("Risk Committee") was established by the Board of Directors at its August 11, 2015 meeting to provide assistance in fulfilling the Board's oversight responsibilities in relation to risk governance in Manila Water. The Risk Committee's roles, responsibilities and authorities are defined in the Risk Committee Charter approved by the Board of Directors during its November 26, 2015 meeting.

In compliance with the Risk Committee Charter, the Committee confirms that:

- An independent director chairs the Risk Committee. The Committee has three out of four members who are independent directors.
- The Committee had two meetings during the year with the following attendance rate:

Directors	No. of Meetings Attended/Held	Percent Present
Jaime C. Laya	2/2	100%
Jose L. Cuisia, Jr.	2/2	100%
Oscar S. Reyes	2/2	100%
Gerardo C. Ablaza, Jr.	2/2	100%

- The Committee discussed with Management significant risk exposures, the related risk-mitigation efforts and initiatives, and the status of the mitigation plans.
- The review was undertaken in the context that Management is primarily responsible for the risk management process.
- The Committee has reviewed the Enterprise Risk Management Process in Manila Water Company, Inc. and is satisfied that sufficient risk management systems are in place.

March 16, 2020

JAIME C. LAYA
Chairman

GERARDO C. ABLAZA, JR.
Member

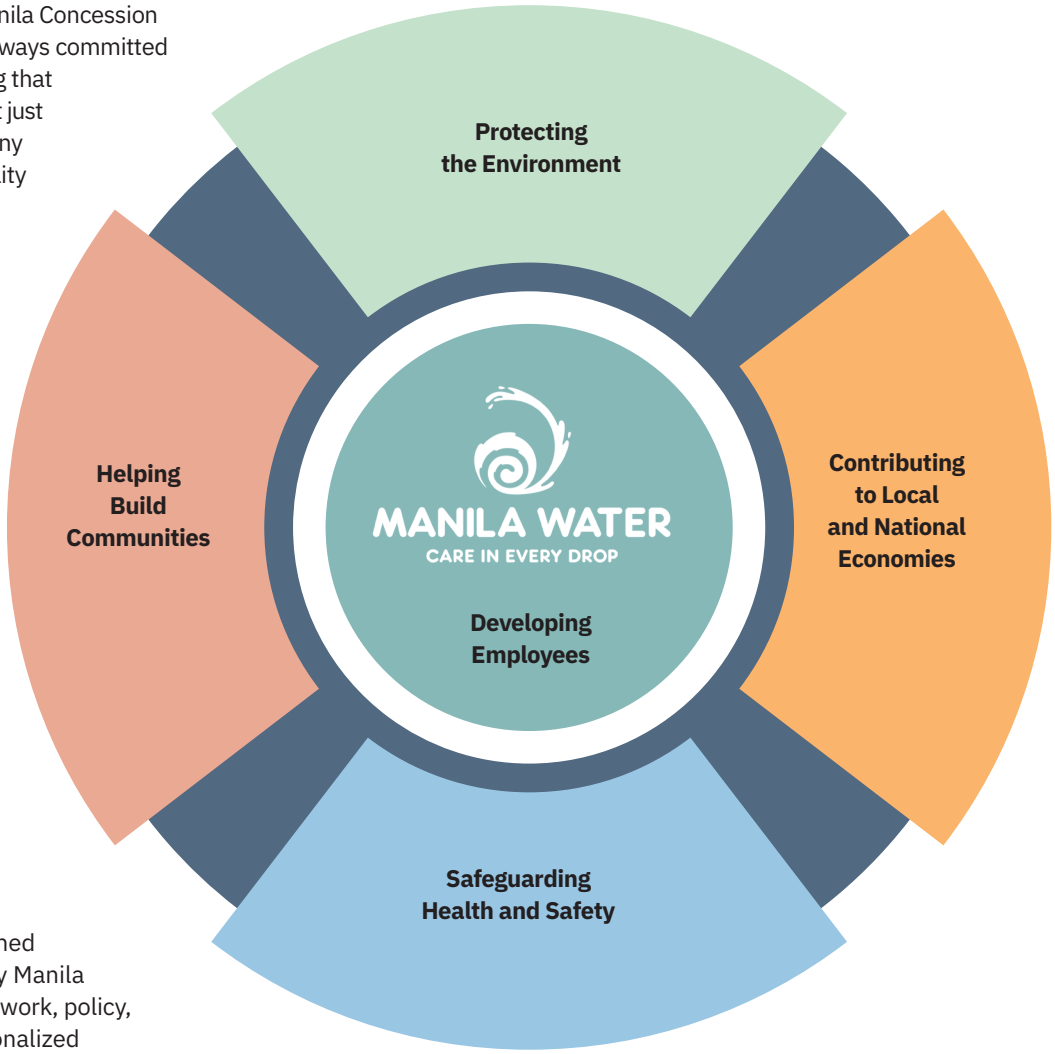
JOSE L. CUISIA, JR.
Member

OSCAR S. REYES
Member

Our Journey of Commitment to Sustainability

Since the takeover of the Manila Concession in 1997, Manila Water has always committed to value creation, recognizing that there is a mission to fulfill, not just a business to run. The company believes that long term viability is very much dependent on alignment with social, economic and environmental goals – the ability to empower employees and business partners in improving the lives of the customers through the provision of safe and affordable water and wastewater services, and the manner with how natural capitals are managed as the business is uniquely reliant upon the environment, and vice versa.

The mandate to provide clean, safe water and sanitation services to households are clearly defined and further strengthened by Manila Water's sustainability framework, policy, and commitments institutionalized in 2004. These commitments are vital to the company's survival and ability to create value.



SUSTAINABLE DEVELOPMENT FRAMEWORK

Manila Water's sustainability framework operates from the inside-out, with the company's talents at the center of the framework. Development and the welfare of its employees who are at the forefront of the business is vital, ensuring that they are capable and engaged in delivering services to customers in an exceptional manner and ready to support the company's business growth aspirations.

Manila Water helps builds healthy, productive and resilient communities by providing basic lifelines of water and wastewater services. Affordable, clean and reliable water is a fundamental requirement to empowering citizens, making them healthy and productive and contribute to the overall economy. Resilience of Manila Water's assets and operations versus natural and man-made calamities driven by climate change and other factors, ensure that economic gains of communities are sustained in the long run.

Manila Water recognizes it is interdependent with the natural environment, on ecosystem services to reliably provide raw water that is the main ingredient of the business, and thus it is essential that the company help rehabilitate, protect and enhance water sources. Through wastewater services, the company helps in the recovery of polluted bodies of water which can also be seen as water sources.

In the course of expanding service access to more customers and improve the quality of services, the company invests in putting up additional infrastructure, and through partnerships with its supply chain, contributes to providing employment thus enhancing local and national economies.

OUR SUSTAINABILITY POLICY

Manila Water has long incorporated in its core strategy the principles of sustainable development and inclusive growth and integrates these principles into business processes. Manila Water believes that the long term survival of its business is dependent on the communities it serves, the natural environment that provides resources, as well as stakeholders who support its programs and provide valuable insights and feedback to improve business execution. With this in mind, the company addresses specific needs of communities, the environment, and the economy, thereby creating and maximizing shared value.

OUR SUSTAINABILITY COMMITMENTS

- Be an indispensable partner in building communities in the areas that we service by providing potable water, sewerage or sanitation at reasonable rates
- Develop self-sustainability of targeted communities by instituting capacity-building mechanisms and livelihood programs
- Operate the business in a way that the health of employees, service providers and the general public would be safeguarded

- Design and develop an environmental management system that would ensure continuing environmental compliance and sustainability of operations
- Develop, promote and implement programs that would nurture, protect and conserve natural resources
- Use climate change adaptation as an overall framework for addressing operational and asset risks

- Value employees as the company's primary stakeholder by respecting their fundamental rights at the workplace, and providing opportunities for both professional and personal development
- Adhere to the highest standards of corporate governance and observe responsible business practices across the organization

- Uphold service excellence and operational efficiency, and continuously see new business opportunities to strengthen the financial viability of the Company, thereby maximizing shareholder value
- Drive economic growth and development by constructing and managing best-in-class water and wastewater infrastructure, and helping small and medium enterprises strengthen and expand their business

- Ensure sustainability in the supply chain by communicating the sustainability policy to vendors, and by encouraging them to adopt the same in the conduct of their businesses and to align their company
- Work closely with the communities, the government, civil society, businesses and other stakeholders to develop and implement programs
- Champion sustainability by educating and encouraging subsidiaries, partners and other stakeholders to be socially and environmentally responsible

Material Aspects

Manila Water's 2019 report focuses on performance related to impacts on communities, environment, its own workforce, business partners, and the overall economy. At the same time, it articulates how external environment affects the ability of the company to deliver value in the long term. The material topics listed play an important role on how the company plans, designs, and operates in alignment with corporate strategy, sustainability framework, regulatory key performance indicators, business efficiency measures and risk management programs in the enterprise.

The company routinely engages key stakeholders who are affected by Manila Water's operations, and who at the same time influence the company's success.

Material aspects are validated through stakeholder engagements facilitated throughout the year, with emphasis on key issues covered in the special reports of this publication.

MATERIALITY MATRIX

1 Developing Employees
2 Protecting the Environment
3 Helping Build Communities
4 Safeguarding Health and Safety
5 Contributing to Local and National Economies

Influence to Stakeholders Assessment and Decision Making	Low	Medium	High
High		5 Direct and Indirect Economic Contribution	2 Water Supply (Water Sources, Water Resource Management, Climate Change) 2 Operations Efficiency (NRW and Energy, and Chemicals) 2 4 Water Supply Reliability and Quality 2 3 Wastewater Services Delivery (Sewer Connections, Septic Tank Desludging) 2 5 Project Development, Execution, and Disbursement 2 Business Continuity and Crisis Management 5 Corporate Governance
Medium		1 Employee Training and Development 1 Employee welfare and benefits, and Employee Engagement 2 Customer Service (Policies, Communications, and Billing) 3 Environmental and Social Safeguards (Waste, Energy, Emission, Data Privacy, and IP communities)	4 Occupational Health & Safety 5 Supply Chain Management
Low			
	Significance of Environmental, Social and Economic Impacts		

Financial disclosures cover all local and international subsidiaries. For operational, environmental, social and supply chain disclosures in this Integrated Report, Manila Water used the following criteria for setting boundaries: (1) units which are operational for at least one full year or more, and; (2) businesses which Manila Water has operational control or has seconded employees in operations.

Stakeholder Engagement

Over two decades in service, Manila Water incessantly heeds to its stakeholders needs and interests. The Company believes that stakeholders are vital in its operation and to continuously grow better in being of service to the public.

STAKEHOLDER CONCERNS

Water Security (water sources, water resource management)

Concession Regulators
NGA Regulators (DOH,DENR, LLDA, NWRB,LGUs)

Water Supply Reliability (24/7 supply, interruptions, leaks)

Customers
Concession Regulators

Raw Water and Drinking Water Quality

Customers
Concession Regulators
NGA Regulators

Customer Service (policies, communications, billing)

Customers
Concession Regulators

Wastewater Services Delivery (sewer connections, septic tank, desludging)

Customers
Concession Regulators
NGA Regulators

Business Continuity

Customers
Employees
Concession Regulators
Finance Community
NGA Regulators

Tariffs and Compliance (service targets, tariffs, business plans, operational performance, regulations)

NGA Regulators
Concession Regulators
Customers

Projects Development (SC mandamus, concession targets, alignment of govt infra plans)

Concession Regulators
NGA Regulators

Supply Chain Management (projects pipeline, accreditations, performance review, feedback mechanisms, vendor pools)

Supply Chain
Concession Regulators
Finance Community

Project Execution (right of way, land, traffic, materials, supply)

Supply Chain
Concession Regulators

CAPEX Disbursement

Concession Regulators
Finance Community

Governance, Sustainability, Non-financial Performance

Finance Community
Customers
Employees
Media

New Business Development, Expansion, Acquisitions and Disclosures

Finance Community
Media
Employees

Talent Development and Succession

Employees

Employee Welfare and Employee Engagement

Employees

Channels and Initiatives

Various engagements are being carried out to be able to gather valuable insights from the stakeholders, these insights play a crucial role in the company's strategic planning process.

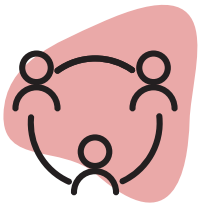
Customers

Mode of Engagement	Initiatives
• Monthly Abot Kamay ng Barangay • Public consultations • Quarterly Kasangga Days • Website and social media • Use of flyers and bill inserts • Toka Toka Advocacy and Lakbayan • Customer service hotline	• Regular project updates • Complaints resolution • Traffic Management plans

Concession Regulators & NGA Regulators

Mode of Engagement	Initiatives
• Regular briefings and updates, and submission of reports • Meetings with regulatory offices/ 'Kumustahan' • Public consultations, seminars, conferences and fora • Rate determination done every 5 years • Toka Toka advocacy and lakbayan • Participation in NGA events	• Participated in various engagements relative to the rate rebasing exercise • Attended and provided support to Public Consultations led by MWSS RO • Participated in the TWG for new water sources led by MWSS CO • Compliance to regulators requirements • Policy advocacy • Alignment of IECs, desludging caravan, and other environmental projects • Position papers and similar documents • Regular and close coordination on project planning and implementation • Partnership in Toka Toka advocacy program

Supply Chain



Mode of Engagement	Initiatives
• Annual forums and trainings • Vendor 360 Degree Feedback • Performance issue letters and counselling sessions • Company presentations	• Standardized accreditation process across the enterprise with the use of Ariba (Vendor Database for buyers and Virtual Data Room for vendors) • Roll outs of projects • Trainings, e.g. safety, online procurement • Vendor 360 Degree Feedback

Finance Community

Mode of Engagement	Initiatives
• Quarterly analysts briefing • Annual report • Annual stockholders' meeting • Website and press releases • Roadshows and one-on-one meetings	• Timely disclosures to the regulatory agencies and investing community

Media

Mode of Engagement	Initiatives
• Regular media coordination • Bi-annual press briefings and conferences • Media coverage for special events (signing, sealing, inauguration among others) • Regular dispatch of press releases and announcements • Website and social media posts on prevailing issues and service updates • Sponsorships of media events and advocacies • Media engagements and interviews	• Press briefing and media engagements • Media visits of major projects and facilities • Public information on issues and concerns • Regular seeding of relevant press releases • Regular interface with local and national media • Advisories and notices to customers • Media fora, interviews and press conferences • Relevant information posted on digital and social media platforms

Employees

Mode of Engagement	Initiatives
• Regular internal meetings on different levels • Employee engagement survey • Yearly performance reviews • Roadshows (rolling-out new policies, etc.) • Email blasts/bulletins/ online publications	• Annual performance-based salary adjustments • Employee engagement programs • Manila Water University

Developing Employees

Mentoring the next generation of Project Managers

Manila Water regards its employees as the most important resource and partner in creating lasting value. The company ensures to keep the welfare of all its workforce as a primary concern. Manila Water's holistic approach to talent management–from the point of recruitment to growth, incentives, retention and engagement–helps ensure the company brings in, develops, and engages talent with the requisite skills to help the company achieve its goal of building a sustainable future.

With the recent water crisis, Manila Water responded by strengthening the skills of its employees through capacity development of core, leadership and technical competencies. This strategy enables the company to adapt with the changes and "new normal" of its business environment.

The company also believes that effective leadership is critical for people to excellently perform their roles with integrity and competence. This is in alignment with the aspiration of the organization to sustain the trust of stakeholders.

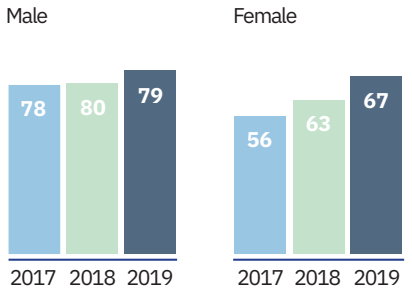
WORKFORCE

2,412
Total Workforce

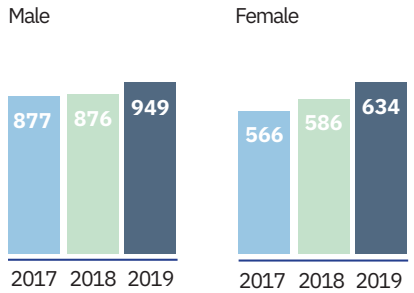
1,578
Male

834
Female

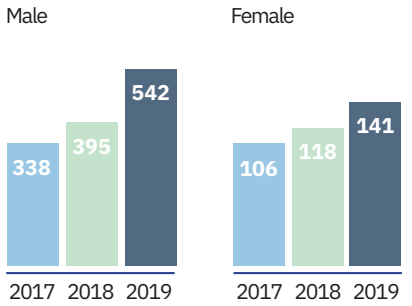
Total headcount of senior management by gender



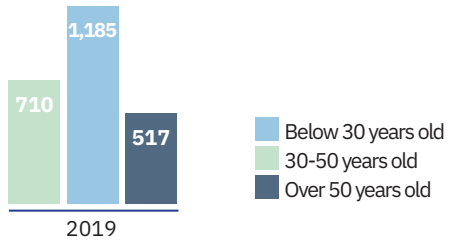
Total headcount of middle management by gender



Total headcount of rank and file by gender



Total headcount of by age group per category



New Hires

By Gender	2017	2018	2019
Male	264	236	413
Female	150	152	222
TOTAL	414	388	635

By Age	2017	2018	2019
>30 years	206	222	282
30-50 years	195	139	291
<50 years	13	27	62
TOTAL	414	388	635

By Region	2017	2018	2019
NCR	279	297	370
Luzon	92	72	180
Visayas	43	14	78
Mindanao	0	5	7
TOTAL	414	388	635

Turnover Rate

By Gender	2017	2018	2019
Male	120	214	179
Female	66	147	113
TOTAL	186	361	292

By Age	2017	2018	2019
Less than 30 years	56	110	95
30-50 years	75	145	139
More than 50 years	55	86	58
TOTAL	186	341	292

By Region	2017	2018	2019
NCR	142	288	217
Luzon	35	40	62
Visayas	9	11	9
Mindanao	0	2	4
TOTAL	186	341	292

TALENT DEVELOPMENT

Manila Water provides talents access to various learning and development opportunities composed of in-house and external trainings as well as accelerated development programs under the Manila Water University. In 2019, there were a total of 42,477 training hours for 2,172 employees.

Manila Water University, the corporate learning institution of the company, provides a wide range of training and development courses facilitated by an instructor or on-line. The programs under the university are component-based, aimed at developing talents by enhancing their leadership, technical and functional skills. These pillars will help in preparing leaders and technical specialists to assume critical roles in the organization.
In addition to learning in a classroom setting, close mentoring and stretched assignments allow employees to hone their skills.

Manila Water continues to implement its Cadetship Training, with its 26th batch graduating in 2019. This six-month program provides eligible fresh graduates with opportunities for specialized training and work immersion experience. Hence, expanding business and technological competencies of talents.

The General Manager and Project Management Schools also continue to ensure a deep bench of competent talents for future growth. Identified subject matter experts in the organization also work on developing comprehensive modules for the Technical Operations School (Manila Water Institute of Technology) to further capacitate employees performing technical roles.

TYPES OF TRAINING

Technical

42
Courses

Leadership

2
Courses

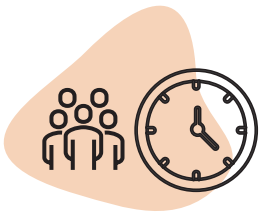
Legal and Mandatory

17
Courses

OVERALL

42,477
Total training hours provided to employees

2,172
Total number of trained employees



19.5
Average training hours per employee

BY GENDER

27,910
Total training hours
provided to male employees

1,396
Total number
of male employees

20
Average training hours

14,566
Total training hours
provided to female employees

776
Total number
of female employees

19
Average training hours

BY RANK

By Rank	2017	2018	2019
By employee category			
Total training hours provided to Senior Management	3,886	6,021	2,763
Total number of Senior Management Officers	134	143	146
AVERAGE TRAINING HOURS	29	42	19
Total training hours provided to Middle Management	44,764	35,863	33,992
Total number of Middle Management Officers	1,444	1,462	1,583
AVERAGE TRAINING HOURS	31	25	22
Total training hours provided to Rank-and-File	7,104	3,123	5,722
Total number of Rank-and-File Employees	444	513	683
AVERAGE TRAINING HOURS	16	6	11

EMPLOYEE ENGAGEMENT

Manila Water fosters work-life integration for its employees to maintain a healthy working environment. The company sees to it that the workforce understands and respects people's experiences not only as employees but also as homemakers, parents, and leaders of their respective communities.

In response to challenging city conditions and to maximize available technology solutions, the company provides flexible time and work arrangements for its employees to encourage productivity and collaboration while meeting the changing talent profile. Five work hubs with adjunct support facilities can be accessed across the East Zone in the company's various installations in Metro Manila. These hubs also works as contingency sites to ensure quick business recovery in the case of natural disasters and emergencies.

Manila Water regularly conducts surveys and assessments in order to measure and validate the engagement of employees. This allows the company to address and respond to results by identifying and implementing initiatives to make employees more enabled, productive and energized, while enhancing 'malasakit'. An enterprise-wide Employee Engagement Survey was conducted in mid-2019, offering talents an opportunity to express themselves and their opinions on a number of material topics such as leadership, values, work relationships, performance appraisal and employee benefits

Opportunities are provided for employees to promote teamwork and camaraderie, such as volunteer-driven calamity response, sports and fitness programs as well as corporate events. Corporate award mechanisms are in place for employees who exemplify excellent performance and work ethic. These recognition programs are the Huwarang Manggagawa Awards for rank and file employees, the President's Pride due to Performance Awards for middle managers, and the Chairman's Circle Awards for the senior managers.

In order to recognize the long service of employees to the organization, retirement planning services are provided to promote smooth transition to new beginnings.

Manila Water provides flexible workplace option for employees in response to the transportation challenges in the metropolis

Manila Water supports the development of its employees not only professionally but also as individuals such that initiatives on total wellness and mental health are accessible for a more holistic approach.

FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING

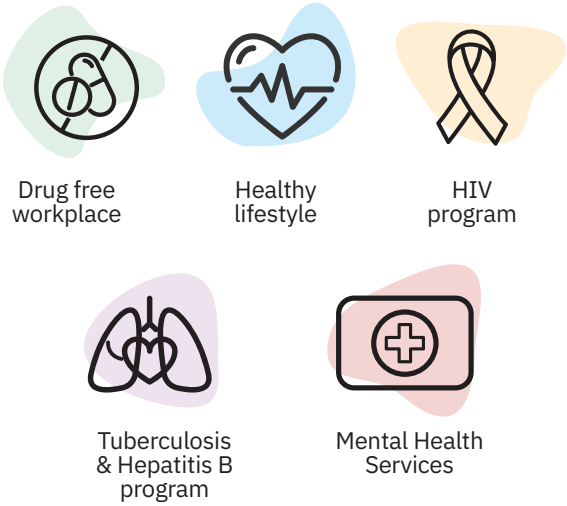
Manila Water values the rights of its employees to participate in the formulation and review of policies concerning the rights and welfare of the workforce. The company supports the employees' freedom of association and complies with the existing laws in this regard. In 2019, 12.75 percent of the total employees of the Manila Concession were covered by the latest collective bargaining agreement signed in 23 November 2018.

SAFEGUARDING OCCUPATIONAL HEALTH AND SAFETY

Manila Water commits to strengthening a culture of health and safety across its workforce, supply chain, and the general public, and continually assesses, implements, and improves business processes by adapting best practices in safety communications, procedures and compliance.

Manila Water is certified according to OHSAS 18000: 2007 Occupational Safety and Health Management Systems which is also integrated with other management systems. Policies and procedures for compliance on occupational health standards of the country are well established.

In response to the recently approved implementing rules and regulations of Republic Act 11058 covering Occupational Safety and Health, the safety programs of the company were re-scoped to include and/or strengthen the following:



The company has set up safety committees at the group, department, and facility levels which are well represented from rank and file to managerial employees. These committees monitor safety performance on a regular basis and implement continuing improvement initiatives to address gaps and overlaps in processes.

The company implements measures such as incident investigations among employees and contractors. Reporting and escalation procedures are in place, and consolidated reports are submitted to the Department of Labor and Employment.

In addition, activities such as emergency drills, basic life support, and first aid trainings, are conducted in collaboration with the Red Cross to enhance employees' emergency preparedness and response. Fire Safety Standard audits are also done once a year in coordination with the Bureau of Fire Protection.

By the end of 2019, the Manila Concession attained 178,976 safe man-hours after a reset in November. Prior to the reset, there was an accummulated 18,895,080 safe man-hours. Despite this, the company continues to ensure that its employees always display safe behaviors and practices at work.

CUMULATIVE SAFE MAN-HOURS

As of December 31, 2019

MANILA CONCESSION Nov 2019-Dec 2019	**178,976**
BORACAY WATER Feb 2014-Dec 2019	**824,120**
LAGUNA WATER Jan 2012-Dec 2019	**1,912,581**
CLARK WATER Jun 2016-Dec 2019	**554,924**
CEBU WATER Jan 2015-Dec 2019	**40,656**
OBANDO WATER Jan 2019-Dec 2019	**65,370**
CALASIAO WATER Oct 2019-Dec 2019	**5,671**
ESTATE WATER Jan 2019 - Dec 2019	**240,280**

Helping Build Communities & Safeguarding Customers' Health

Access to water and sanitation is a universally acknowledged fundamental human right, and consequently is a basic lifeline in any community that ensures healthy and productive inhabitants and a thriving economy. For Manila Water, it is a call for shared value creation – the provision of innovative solutions to social and environmental issues, at scale – that the company has aligned its vision and mission with. This is best articulated by the United Nation's Sustainable Development Goal 6 that seeks to increase the proportion of the population that has no access to clean water and sanitation.

Manila Water has a core service obligation to provide water and wastewater services delivered to customers in a reliable and efficient manner, resilient towards various risk scenarios, and at an affordable cost. The company continuously strives to expand these services to more people – especially the marginalized – and improve the way its services are delivered.

SERVICE ACCESS FOR ALL

Manila Water believes that inclusivity is fundamental in its service expansion plans, making sure that no one gets left behind, especially the marginalized communities, also known as the base of the pyramid. The "Tubig Para Sa Barangay" (TPSB) program addresses the needs of low-income communities of having clean and affordable water. Together with the innovations adopted in managing non-revenue water, the TPSB has become one of Manila Water's initiatives that have been recognized as best practices by the global water sector.

Complementing the TPSB program is the Lingap program which provides clean water to public service institutions such as schools, public markets, and hospitals, making sure that families have clean and safe water beyond their dwellings. Both TPSB and Lingap have been replicated and adapted to local conditions in Boracay and Laguna, in partnership with the Manila Water Foundation.

POPULATION SERVED

7,083,522
Manila Concession

34,157
Boracay Water

35,618
Bulacan Water

11,985
Calasiao Water

60,000
Cebu Water

132,424
Clark Water

48,956
Estate Water

714,010
Laguna Water

46,657
Obando Water

LEVERAGING ON PARTNERSHIPS IN SERVICE DELIVERY

Working closely with community leaders and local governments is essential in achieving the objective of providing water and sanitation to more communities especially in times of crises. Partnerships formed through the years were strengthened in the water crisis that hit the Manila Concession in March 2019. Local governments and national government agencies played a significant role during tough times, magnifying the calls of their constituents and collaborating with Manila Water's business area offices in identifying and arranging assistance schedules for specific areas, in some cases augmenting the equipment of Manila Water by deploying their own water trucks, and ensuring that Manila Water employees had adequate security.

Customer centricity has always been part of Manila Water's business values. Since the early years of the company, its unique proactive territory management approach anchored on 'knowing the customer,' led to success in attaining business goals, and this approach is continuously being updated through adjustments in organizational structure and business processes in accordance with changes in customer preferences.

Unique Manila Water partnership mechanism with stakeholders is the customer kasangga system. Community partners, or kasanggas as Manila Water calls them, are customers who act as the company's force multipliers on the ground by relaying advisories to customers on matters such as water interruption, desludging drives and public consultations. Kasanggas also provide real time feedback to the company such as water pilferages, pipe breakages and other service complaints, resulting in faster response times and problems resolution.

BUILDING RESILIENT COMMUNITIES

The impact of climate change on water supply coupled with the needs of a growing population and economy is a concern that Manila Water has always considered in managing top risks and opportunities. In the course of the expansion of water services in the past two decades, the company has strived to avoid both physical (nature-derived) and economic (man-made) water scarcity through water source protection and new water source development initiatives.

The water supply crisis which had its onset in March 2019 was a result of natural and man-made water scarcity. The mild El Niño of 2018-2019 produced very little rainfall to replenish reservoirs, but the failure to invest in new water sources infrastructure was a more fundamental root cause that was years in the making. Continuous dialogue and collaborative efforts with MWSS, the water security agency, and other government institutions are being undertaken to restore the reliable supply of water in Metro Manila.

Manila Water was the first Philippine company to adopt a Climate Change Policy in 2007, consequently revised in 2013 in response to the National Framework Strategy for Climate Change in 2010, anchoring on adaptation as a key strategy. While incremental benefits at a global scale can be derived from the reduction of carbon footprint from operations, the reality for Manila Water is that it is highly dependent on the hydrologic cycle which is among the fundamental physical processes heavily affected by climate change, and thus it needs to adapt to the new reality and strive to keep its people, physical assets and operational processes resilient to calamities, thus ensuring that the vulnerable communities it serves continue to enjoy reliable services and avoid societal and economic disruption.

ISO IEC 17025:2017 accredited laboratory

COMMITMENT TO WATER QUALITY AND HEALTH

Manila Water responsibility does not end in simply providing reliable (24/7) water supply. The company leaves no room for compromise on water quality.
In 2019, the Manila Concession collected 77,834 water samples of raw and treated water at the facilities and drinking water from customers' taps. In a similar manner, the other Philippine subsidiaries collected 2,686 water samples.

All samples are tested in world-class laboratories accredited by the Department of Health, recognized by the Philippine Department of Environment and Natural Resources, and certified against ISO 9001:2015 for selected facilities (Quality Management), ISO 14001:2015 (Environmental Management), OHSAS 18000:2007 (Occupational Health and Safety). The Manila concession's laboratory is certified against ISO IEC 17025:2017 (competence testing and calibration laboratories).

The company ensures that water quality risks are continuously addressed across the water value chain, minimizing the contamination of raw water at the source, ensuring treatment complies with allowable limits, and providing protection at reservoir storage and during distribution. All potential risks are assessed, and appropriate control measures are incorporated in all parts of operations, control measures are identified and implemented, and policies and procedures are always upgraded as part of continuing improvement.

The Manila Concession's revised and expanded Water Safety Plan (WSP) has been approved by the Department of Health in November 2019. The Water Safety Plan is a comprehensive document that identifies existing and emerging contamination risks along the water trail, from the sources and treatment facilities all the way to customers' taps, with detailed control measures for each aspect of operations and a process for validating effectiveness and continuous improvement. The other Philippine subsidiaries are in various stages of WSP preparation, review and regulator approval, in accordance with the Department of Health directive to develop and implement plans to ensure delivery of safe drinking water.

Protecting the Environment

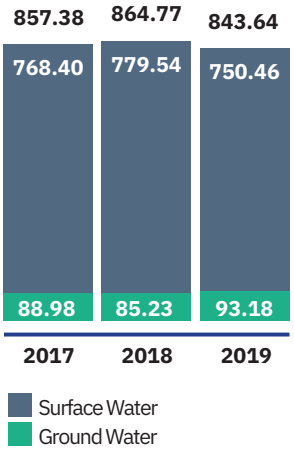
Sustainable operations of Manila Water is only as strong as the ecosystem services on which it depends. It is therefore an imperative for the company to ensure the overall health of the physical environment, taking into consideration its impact to, and impact from, the whole water cycle, from managing water sources down to managing water that has been used prior to return to rivers, lakes and the sea. This holistic approach allows Manila Water to optimize current and future resources while continuing to cater to customer needs. Manila Water remains committed to championing environmental protection, and recognizes the valuable support and shared responsibility various stakeholders have extended to move forward in the common goal of protecting the environment.

MANAGING WATER RESOURCES AND WASTEWATER

In order to effectively manage water supply, the company tracks water withdrawal by source. This ensures that water withdrawals from groundwater and surface water sources, as well as its discharges are within regulatory limits. By tracking these metrics, the company is able to provide insights for all stakeholders on the need for water source development, collective action on water conservation and its contribution to the restoration of ecosystems such as Manila Bay and Boracay Island.

The Company's total water withdrawal in 2019 was 843.64 million cubic meters (MCM) of surface and groundwater across all its operating subsidiaries in the Philippines and Vietnam.

Water Withdrawal by source (in MCM)



88.96%
Surface Water

11.04%
Ground Water

Prior to 2019, the Manila Concession abstractions from wells were constant at around 0.29 percent of total water supply. The water crisis prompted the company to look for ways to augment the dwindling supply from Angat and La Mesa, and special permission was secured from the MWSS and NWRB to rehabilitate the old wells which were constructed before privatization and during the 1997-98 El Niño crisis. Special permit was also granted to construct new wells in strategic locations for use during summer. It is foreseen that partial dependence on wells will be the norm for water supply until MWSS completes the major water source. Manila Water regularly reports total groundwater withdrawals to the NWRB for monitoring and assessment if aquifer reserves remain intact.

Wastewater Collected and Treated

	2017	2018	2019
Wastewater Treated, MCM	56.42	62.42	64.16
Organic pollution load removed, tons of BOD[1]	9,087	9,102	13,440
CO_2 Avoided, tons CO_2 (eq)	57,248	57,346	79,085

Note:
1. BOD, or biochemical oxygen demand, is a proxy indicator of the quality (or organic content) of the waste. It pertains to the organic component removed from wastewater (in the form of sludge).
2. Computation of carbon dioxide avoided was based on the updated 2019 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories

Water that has been used by customers was collected and fully treated in 61 wastewater treatment facilities in order to comply with effluent standards, protect public health, and restore water bodies. In total, the company treated a total of 64.16 MCM of wastewater which resulted in the diversion of 13,440 tons of organic pollutants from waterways.

There are three approaches in collecting water used by the customers: through separate sewer lines, combined sewer-drainage system or by septic tank desludging. The company consistently meets effluent water quality standards set by regulatory authorities. In 2019, there was a 2 percent increase in the volume of wastewater treated brought about by 130,973 new sewer connections and the completion/acquisition of 1 additional sewage treatment facility.

Wastewater Treatment Plants

	No. of wastewater treatment plants	Capacity, m^3/day
Boracay Water	2	11,500
Clark Water	1	30,000
Estate Water	16	51,653
Laguna Water	2	11,070
Manila Concession	40	310,683
Total	**61**	**414,906**

In 2018, Manila Water submitted its compliance action plan to the Department of Environment and Natural Resources (DENR) and Laguna Lake Development Authority (LLDA) in response to the Revised General Effluent Standards of 2016 (DAO 2016-08) which require the removal of nutrients such as nitrogen and phosphorus to further reduce algal growth in water bodies. While the MWSS regulatory office has approved the proposed investments for facility retrofits, the environmental regulator has not yet given its full approval for the said action plan.

ENHANCING OPERATIONAL EFFICIENCY

Operation efficiency is key to Manila Water's business, primarily to ensure affordability of its services and with environmental benefits as a corollary outcome. Opportunities to reduce negative environmental impacts and provide continuous services includes optimizing water efficiency, reducing wastes and emissions, and educating the consumers. These efforts further improve the company's environmental performance.

64.16
Wastewater Treated, MCM

13,440
Organic pollution load removed, tons of BOD

79,085
CO_2 Avoided, tons CO_2 (eq)

61
Wastewater Treatment Plants

Non-revenue Water

NRW in % (End-of-Period)

Company	Start of operations	NRW at the start of operations	2017	2018	2019
Manila Concession	1997	63.0%	11.6%	11.4%	10.4%
Laguna	2009	48.0%	19.5%	16.7%	18.0%
Boracay	2010	29.0%	22.5%	13.8%	9.8%
Clark	2011	15.0%	5.5%	6.7%	7.4%
Cebu	2015	5.0%	3.0%	2.0%	3.0%
Estate	2016	47.0%	34.0%	38.0%	30.0%
Bulacan	2017	50.0%	50.0%	34.3%	24.0%
Calasiao	2018	12.1%	-	5.5%	6.8%
Obando	2018	52.9%	-	47.7%	49.8 %
Kenh Dong	-	-	-	3.0%	3.0%
Thu Duc	-	-	-	1.8%	0.0%

Non-revenue water (NRW), generally defined as the total amount of treated water which do not reach the customer taps, usually due to pilferage, pipe leaks and metering error, has always been a vital operating parameter for any water utility. Considering the recent onset of the water supply deficit, it has become vital for the company to strengthen its NRW program which involves leak detection, pipe replacement, meter inspection and calibration, and the timely resolution of incidents and a proactive coordination with benchmark customers and other stakeholders such as third-party contractors, national government agencies and local government units.

Through the NRW program, the Manila Concession recovers around 750 million liters per day (MLD) relative to the systems losses inherited in 1997 – a volume that is equivalent to the output of a medium-sized dam. This provides additional water supply to more customers and alleviates the impact of the delayed investments of the water security agency on new water sources. In 2019, at the height of the summer water crisis, the Manila Concession achieved an all-time low of 7.4 percent NRW.

CHEMICALS

Consistent with its sustainability commitment of safeguarding health and safety, Manila Water puts a premium on the potability and compliance of drinking water with standards of the Department of Health. To help ensure the customers can trust the quality of water at the tap, the production process uses non-renewable chemicals such as alum, blended phosphate, chlorine, lime, polyaluminum chloride (PAC), polymer, and sodium hydroxide. In wastewater treatment, the main treatment mode is biological but the solids management and disinfection processes use polymer, PAC and chlorine. Chemical inputs are consistently among the top three costs (along with manpower and electricity) for both water supply and wastewater operations.

Chemical Consumption, tons

	2017	2018	2019
Water Supply	11,899	23,656	97,072
Wastewater	1,506	2,517	2,485

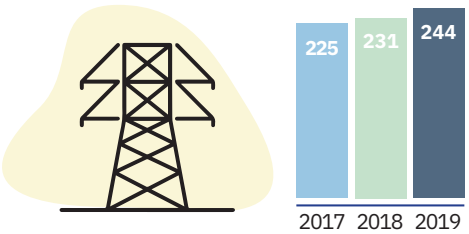
Chemical Consumption Intensity

	2017	2018	2019
Water Supply, tons per MCM raw water abstracted	14.34	28.50	115.06
Wastewater, tons per MCM wastewater treated	26.70	40.38	39.02

In 2019, the company's water treatment facilities across the Philippines, including its operations in Asia Pacific used a total of 97,072 tons of non-renewable chemicals, with an increase of 310 percent across the enterprise. This is mainly attributed to the high turbidity at Ipo and La Mesa brought about by strong typhoons and rains, inclusion of chemical consumption from Cardona Water Treatment Plant, and additional chemicals used to treat raw water from deep wells. Various operational improvements and initiatives, such as watershed protection and rehabilitation, aim to prevent soil erosion which affects the turbidity of raw water.

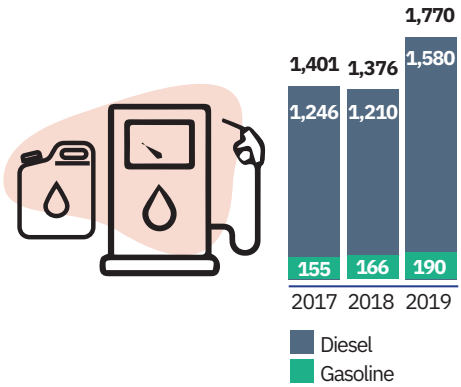
ENERGY AND EMISSIONS

Electricity consumption, million kWh

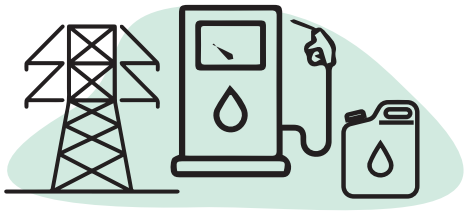


Note: Restated 2017 and 2018 Electricity Consumption due to conversion of MWTS' electricity from kilowatt to kilowatt per hour.

Fuel Consumption, thousand liters



Energy Consumption, GigaJoules (GJ)



	2017	2018	2019
Electricity	809,193	831,439	879,884
Gasoline	5,380	5,775	6,607
Diesel	48,236	46,842	61,153
Total	**862,810**	**884,057**	**947,645**

Manila Water's water utility operations consume significant quantities of energy, especially when topography dictates the need for lifting water from lower elevations. After manpower, electricity is the second biggest operating expense of the company, requiring Manila Water to work in achieving a high level of energy efficiency, promote renewable energy generation and responsibly utilize transportation to help minimize the impact of tariff and contribute to minimizing greenhouse gas emissions.

The company established an Energy Management System (EnMS) for operating facilities to achieve continuous energy performance improvement. Several energy efficiency initiatives have been undertaken and are ongoing, such as demand-based network management, system load balancing, pump efficiency testing and refurbishment, wastewater 'Project Zero', and 'Biggest Loser: Trimming the Energy Bulge' competition and clean fleet initiatives. In addition, the company has installed variable frequency drives, upgraded to LED lamps and replaced air conditioners to inverter-type. Philippines subsidiaries, on the other hand, continue to implement network pipe re-sizing, equipment upgrades, automation, and treatment process optimization and other operational improvements to contribute to energy efficiency.

Greenhouse Gas Emissions, tons CO_2e

	2017	2018	2019
Scope 1 [a]	3,702	3,632	4,638
Scope 2 [b]	157,059	164,015	172,268
Scope 3 [c]	1,653	1,611	1,672
Total	**162,414**	**169,258**	**178,577**

a. Scope 1 emissions are direct CO_2 emissions from the use of fuel for vehicles, generator sets and other equipment. Updated gasoline emission factor from 2.34 kg CO_2/L to 2.27 kg CO_2/L, the latest emission factor of GHG Protocol.
b. Scope 2 emissions are indirect CO_2 emissions from the use of electricity of the company. Manila Concession obtains 59 percent of its electricity consumption from Open Access and the rest from MERALCO.
c. Scope 3 emissions are CO_2 emissions from the desludging operations by contractors.

GHG Intensity, tons CO_2 (eq)

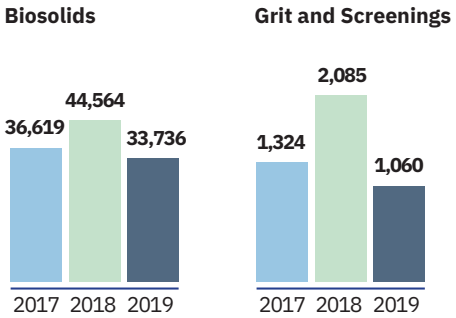
	2017	2018	2019
Water Supply Operations, tons CO_2 (eq)/MCM billed volume	189	195	203
Wastewater operations, tons CO_2/MCM wastewater treated	191	191	303

a. In 2019, there was a 59 percent increase in GHG Intensity for wastewater operations treated due to additional emissions from fuel consumptions of Estate's wastewater facilities.

The Manila Concession and the other subsidiaries measure overall carbon footprint using the Greenhouse Gas Protocol: direct carbon dioxide emissions (Scope 1) from fuel used by the facilities and company's own vehicles, indirect emissions (Scope 2) from electricity bought by facilities and offices, and indirect emissions (Scope 3) from fuel used by septic tank desludging contractors.
The company's Climate Change Policy, while putting more emphasis on adaptation measures and resiliency, makes a commitment to help mitigate carbon emissions primarily through energy efficiency efforts. The 1,166,786 trees planted and nurtured in watersheds and surrounding areas offset some carbon emissions. The total organic pollution removed in wastewater treatment in 2019 translates to 79,085 tons of carbon dioxide equivalent of avoided methane formation, using the latest updated factors generated by the Intergovernmental Panel on Climate Change.

NON-HAZARDOUS AND HAZARDOUS WASTE

Non-hazardous Waste Disposed, tons



The main solid wastes of the Company are grits and screenings, and biosolids generated from treatment facilities. The company ensures that these waste streams are fully accounted for, disposed of in accordance with regulations, and wherever possible, find a suitable use that extends their economic value. Biosolids from the Manila Concession and operations in Boracay are sent to a compost processing facility in Tarlac that uses dried sludge with high nutrient content from various industries. The resulting soil conditioner is applied to sugarcane fields in lahar-affected (volcanic ash) areas in Central Luzon. Grits and screenings not regularly collected by the local governments' solid waste services are hauled by service providers and are disposed in DENR-accredited sanitary landfills.

Hazardous wastes generated by the company are spent chemicals, used lead acid batteries, used oil, and e-wastes. The Manila Concession donates its used oil and used-lead acid batteries to ABS-CBN Foundation's Bantay Langis and Bantay Baterya programs in exchange for tax credits, while other hazardous wastes are properly transported, treated, and disposed of by DENR-accredited hazardous waste service providers. In 2019, a total of 47.85 tons of hazardous wastes were properly transported, treated, and safely disposed.

Hazardous Waste Generated, tons

	2017	2018	2019
Busted fluorescent lamps	16.56	7.45	0.56
Contaminated materials	1.03	0.23	1.76
Asbestos cement pipes	21.82	-	-
Other hazardous wastes	30.20	45.00	0.41
Spent chemicals	0.67	0.10	0.34
Used lead-acid batteries	7.53	2.05	3.24
Waste oil	64.13	6.56	13.69
Grease traps	1.18	6.38	7.72
Electronic wastes	1.14	0.03	-
Total	**144.26**	**67.80**	**27.72**

ADVOCATING ENVIRONMENTAL STEWARDSHIP

Manila Water continues to maintain strong partnerships with local communities, especially through the customer kasanggas who act as force multipliers that help in communications and advocacies.

Since 2006, Manila Water has been organizing the Lakbayan tour, whose objective is to provide an opportunity for members of the public to experience the water trail and foster an in-depth understanding of the value of water conservation and managing water after it is used. Lakbayan takes visitors to a water source, a water treatment plants and finally a wastewater treatment plant. Since the program's inception, 102, 753 individuals from various sectors have benefitted from the Lakbayan experience.

Bawat Patak Tumatatak Goes to Fort Bonifacio Elementary School,
with the assistance from employee-volunteers of Taguig-Pateros Business Area

The Toka Toka Movement is Manila Water's advocacy program that aims to inform and educate people on the need for wastewater management in communities, the value of personal commitment and the collective impact of individual actions for the environment such as having septic tanks desludged, connecting houses to sewer lines where available, segregating solid waste and spreading the gospel of environmental sustainability among one's family and friends. This multi-stakeholder effort banks on the strategy of cooperative volunteerism from program partners such as local government units, national government agencies, businesses, media, the academe and the non-profit sector. In 2019, the Manila Concession has partnered with a total of 34 government and non-government organizations to sustain the campaign. Boracay Water developed its own local version called Amot Amot Para Sa Malimpyong Boracay, and Laguna Water also launched its TSEK ng Bayan (Tamang Sanitasyon Equals Kalusugan, Kalinisan, at Kaunlaran ng Bayan). All three programs have received awards for excellence in communications.

Launched in 2015, 'Bawat Patak Tumatatak' Goes to School, is a sub-program of the Bawat Patak Tumatatak ("every drop makes a mark") employee engagement program, which gives volunteer employees an opportunity to communicate the importance of proper environmental practices to elementary school students. Activities involve short lectures, puppet shows and games which incorporate messages on personal responsibility and environmental sustainability.
The annual culminating event is an interschool competition of student science projects with environmental value. As of end of 2019, the program has partnered with 36 elementary schools, reached 3,658 grade school students and tapped the assistance of 398 Manila Water volunteer employees.

TOKA TOKA
PARA SA MALINIS NA ILOG
NAGAMIT NA TUBIG, GAWING TUBIG NA OKS!

T alakayan at edukasyon sa nagamit na tubig (Communicate the need for wastewater services in your community)

O rganisadong basurahan (Dispose of solid wastes properly)

K oneksyon sa sewer lines (Connect your house to a sewer line when available)

A ktibong pagpapasipsip ng poso negro kada ika-5 taon (Have your septic tank desludged regularly)

Manila Water Foundation WASH for All Communities

At Brgy. Sapang Uwak, an Aeta community where the Integrated WASH program of Manila Water Foundation was established

Since its inception 15 years ago, Manila Water Foundation (MWF) has grown from a small group of employees serving in neighboring communities through education and feeding programs to the enterprise's social development arm focusing on water access, sanitation, and hygiene (WASH) education. Established in 2005, Manila Water Foundation (MWF) has grown from a sustainability initiative to become a social development organization focusing on water access, sanitation, and hygiene (WASH) education that we know today. To date, MWF has now reached out to 3,270,138 individuals, and touched lives in a total of 45 provinces nationwide with the combined contributions of all its major programs: Integrated WASH, Flagship, and Special Programs.

The programs of MWF contribute to various UN Sustainable Development Goals (SDG). As with the enterprise, MWF supports Goal 6: Clean Water and Sanitation. Aside from this, MWF also anchors its programs to Goal 1: No Poverty, Goal 3: Good Health and Well-Being, Goal 4: Quality education, Goal 14: Life Below Water, and SDG 17: Partnership for the Goals.

MWF seeks to co-create communities where everyone enjoys the basic human right to clean, safe and potable water and proper sanitation. With its Integrated WASH, Flagship and Special Programs, MWF hopes to be able to achieve its mission and see a Philippines where no one is left behind.

2019 ACHIEVEMENTS OF THE INTEGRATED WASH PROGRAM

Essential to realizing its mission and advancing its vision, MWF implements a holistic intervention of services according to WASH. First, MWF provides access to clean and potable water in selected communities. Second, MWF designs and builds toilets for communities to eliminate open defecation. Alongside these interventions, MWF educates and encourages behavioral changes towards proper hygiene practices which significantly contribute to overall wellbeing.

For the two pilot communities that MWF supports, namely Sitio Monicayo and Barangay Sapang Uwak, both in the province of Pampanga, MWF has introduced its Integrated WASH program as a community-based agenda. In these two indigenous people communities, MWF upholds a participatory and inclusive approach to community engagement, where people, organized into a Water or Sanitation Group, are at the core of the development process that drive their own participation, thus, ensuring success in WASH interventions.

In Sitio Monicayo, Mabalacat City, Pampanga, 2019 is a milestone year for the Integrated WASH Program with two major milestones: the roll-out of its (BCC) behavioral change communication campaign and the launch of the sanitation phase. By the end of the year, its Water Group was able to deliver 10,544.44 cubic meters to the community and spend 26 capacity-building hours, with ₱370,357 worth of water collections to be used for the sustainability of the water system. For its sanitation phase, Sitio Monicayo's Sanitation Group has also been organized, with 45 toilet-less households provided with a toilet facility between the end of the 2019 to early 2020.

Meanwhile in Barangay Sapang Uwak, Porac, Pampanga, Manila Water Foundation (MWF) inaugurated water facilities early in the year to address this basic need of access to clean, potable and safe water. Three water storage tanks and three-kilometer piped connections to 13 watering points were built in the community where its main source of water is a natural spring. This was in partnership with Manila Water Philippine Ventures – North Luzon Regional Business Development (MWPV-NLRBD) and the Municipal Government of Porac.

All throughout the year, MWF has established a mutual relationship with the community, forming a Water Group and building the capacity of its members to maintain and operate the water facilities in the long run.

WASH Community: Sitio Monicayo, Mabalacat City, Pampanga

- 10,544.44 cubic meters volume of Water Delivered to the Community
- 26 Capacity Building Hours
- ₱370,357 Collected Amount from Rationing
- 1,032 residents in Sitio Monicayo, Barangay Calumpang in Mabalacat City, Pampanga

WASH Community: Barangay Sapang Uwak, Porac, Pampanga

- 13 Watering Points
- 22 Capacity Building Hours
- 1,098 residents in Barangay Sapang Uwak in Porac, Pampanga

2019 ACHIEVEMENTS OF MWF FLAGSHIP PROGRAMS

MWF also reaches out to other marginalized communities through its Flagship Programs, namely Lingap, Ahon, and Health in our Hands. These programs are for public institutions and low-income communities that have less to no capacity to install their own stand-alone water supply system and are in-need of hygiene education.

149,281
Beneficiaries Served

Lingap is an infrastructure development program for hygiene and drinking facilities in public institutions such as schools and health centers.

Ahon is an infrastructure development program of stand-alone water supply or sanitation system in low-income communities. Under Ahon program are two sub-programs: Ahon Tubig, an infrastructure development program of stand-alone water supply systems in low-income communities; and Ahon Sanitasyon, an infrastructure development program of stand-alone sanitation facilities in low-income communities.

130,165
Ahon Sanitasyon
Beneficiaries Served

82,291
Ahon Tubig
Beneficiaries Served

Health in Our Hands is an educational program for institutions and communities on the importance of proper hygiene practices as key to a healthy living.

1,080
Stand-Alone Health in Our Hands Sessions: Individuals Served

3,253,725
World Oral Health Day: Individuals Reached

9,940,048
Global Handwashing Day: Individuals Reached

1,092,846
World Toilet Day: Individuals Reached

2019 ACHIEVEMENTS OF MWF SPECIAL PROGRAMS

MWF also serves through its Special Programs, which promote national development and immediately addresses people's needs in times of disasters and calamities.

Agapay is the provision of water access and sanitation services to disaster-affected communities. Under Agapay are two sub-programs: Agapay Tubig, a disaster response sub-program that distributes bottled drinking water and deploys water tankers or Mobile Treatment Plants to affected families to address their needs for drinking, bathing, and other hygiene-related activities; and Agapay Sanitasyon, a disaster response program that builds sanitation facilities for affected families and individuals who were displaced from their homes and communities.

56,850
Residents Served

11,370
Bottled Deployed

MWF Prize for Engineering Excellence is a biennial award and the first-ever recognizing body in the country that honors Filipino engineers who made notable contributions in the areas of water, sanitation, environment, and sustainability for marginalized communities.

11,587,071
Promotional Reach

4
Total Awardees

WASH Volunteerism is a pool of Manila Water enterprise talents and external partners who selflessly share their time, skills, and resources with the Foundation's initiatives.

1,955
Volunteer Man-hours

489
Total Volunteers

Leveraging on the enterprise's business expertise in water supply and sanitation, MWF aligns itself with the Manila Water Company's sustainability framework by helping build communities, protecting the environment, safeguarding health and safety, contributing to local and national economies, and developing employees. With the breadth of its Flagship and Special Programs, and the depth of its core program, the Integrated WASH, MWF looks forward to bringing WASH for All Communities in the years to come.

Aerial view of the NBAQ4 Project
and Balara Treatment Plant 2

Business Review

MANILA WATER'S NET INCOME STOOD AT ₱5.5 BILLION IN 2019, LOWER BY 16 PERCENT AGAINST THE PREVIOUS YEAR DRIVEN MAINLY BY THE IMPACT OF THE MWSS PENALTY, VOLUNTARY ONE-TIME BILL WAIVER PROGRAM AND ADDITIONAL EXPENSES RELATED TO THE WATER SHORTAGE, AS WELL AS THE POTENTIAL BUSINESS EXPOSURES RECOGNIZED BY THE COMPANY.

Amid the challenges faced during the year, the Manila Concession continued to work towards operating efficiency. The Manila Concession reconfigured its distribution network operations so it can provide reliable service to customers even with a significantly reduced raw water allocation.

The company's performance was supported by the contribution of the domestic subsidiaries, with Manila Water Philippine Ventures growing by 131 percent. Main drivers of this performance were Estate Water, Laguna Water and Boracay Water.

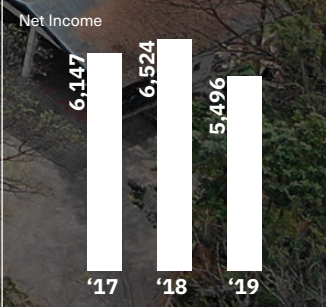
89% Manila Concession

11% Non-Manila Concession

Net Income Contribution

12.6B

Capital Expenditures



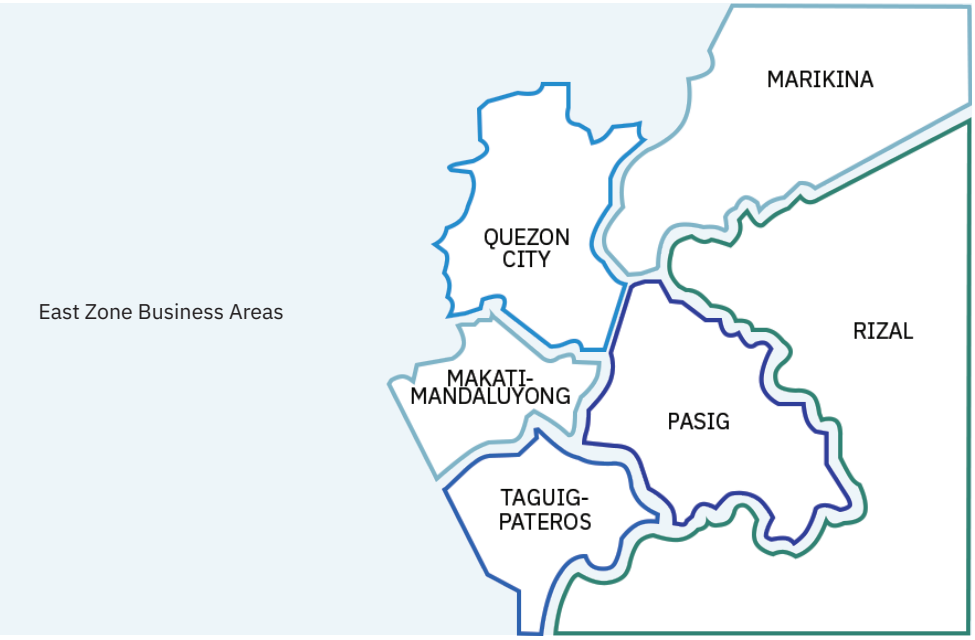
Manila Concession

The Ilugin Sewage Treatment Plant, with a capacity of 100,000 cubic meters per day, is scheduled to undergo commissioning in early 2020.

The Manila Concession serves as the flagship concession providing water and wastewater services to 23 cities and municipalities divided into the following business areas namely, Mandaluyong-Makati, Marikina, Quezon City, Pasig, Rizal and Taguig. The Company's customer base is composed of a broad range of residential, commercial, and industrial customers with a population of close to 7.1 million across 1,400 square kilometers of concession area. Providing reliable access to safe water and sanitation services to this vital breadth of the mega-metropolis, Manila Water promotes liveability and enables progress.

It was a challenging year for the Manila Concession as the water crisis and subsequent events affected its operations. Despite headwinds, topline grew by four percent to ₱16,842 million driven by the seven percent increase in average tariff but was partly tempered by the decline in billed volume to 493.9 million cubic meters (MCM) from 503.3 MCM in 2018.

The Manila Concession continues to rely heavily on the Umiray-Angat-Ipo-La Mesa water resource system. With the continued growth in Metro Manila and Rizal, the system is not enough to cover the demand which resulted a significant decline in dam levels in 2019. Both the La Mesa and Angat Dams reached critical levels on separate occasions, with the lowest levels at about



1,002,380
Billed Connections

10.4%
Non-revenue Water

9,903 M
Capital Expenditures

44.91 MCM
Wastewater Treated

6,302 tons
BOD Removed

68.5 meters and 160 meters, respectively. As a response, the company focused on implementing water supply augmentation projects, specifically the completion of the Cardona Water Treatment Plant (CWTP), recommissioning and development of deep wells and network management projects. CWTP was completed in the first quarter of 2019 and is capable of producing 100 million liters per day (MLD) of raw water from Laguna Lake. Meanwhile, recommissioned and new deep wells had combined capacity of 55 MLD as of December 2019. Lastly, network management projects yielded even further improvements to the company's already low Non-Revenue Water (NRW) levels. Also, in partnership with the Metropolitan Water and Sewerage System (MWSS), new water sources have already been identified and are in their respective phases of development.

The recent water shortage also highlights the need to protect and rehabilitate watersheds in Ipo, La Mesa and Umiray. Manila Water takes an active part in relevant activities because these are essential in mitigating the risks associated with the quality and quantity of water available for the concession. Manila Water continues to work closely with MWSS and DENR to ensure that projects toward the protection and rehabilitation of the watersheds are implemented. Several partnerships are also created in the project implementation stage. In the past, Manila Water has partnered with other entities such as ABS-CBN Lingkod Kapamilya Foundation, Inc. and Bantay Kalikasan for La Mesa Watershed protection and rehabilitation.

Consistent with its mandate, Manila Water continues to invest in wastewater. In 2019, the company completed the construction of the Pasig North and South Sewerage System, also known as the Ilugin Sewerage Treatment Plant (STP). The plant provides an additional 100 MLD capacity, covering the parts of Pasig, Taguig, Cainta and Taytay, to the existing 310 MLD capacity. This is also in line with the company's environmental advocacy and is communicated through the Toka Toka Program. As of 2019, the company has already partnered with 34 local government units and non-government units in encouraging customers and partner organizations on proper waste disposal, proper sewer line connections, septic tank desludging and support for other community-based water management projects. Manila Water likewise supports the Supreme Court continuing mandamus for the clean-up and rehabilitation of the Manila Bay.

Manila Water Philippine Ventures

Clark Water continues to support the development of industries within the main zone of the Clark Freeport Zone

Helping develop local economies and improving quality of living have been the forefront of Manila Water Philippine Ventures' (MWPV) expansion and operating principle. MWPV continues to strengthen the social responsibility of its operating subsidiaries and incorporate it in new partnerships across the country. In doing so, MWPV supports the transformation of areas to sustainable and dynamic areas.

On a consolidated MWPV level, revenues grew by 45 percent to ₱4.8 billion in 2019. A significant contributor to this improvement was the higher revenues of Estate Water coming mostly from its supervision fees for the provision of design and project management services in the development of water and wastewater facilities, as well as similar fees for the provision of water and wastewater services. In addition, portions of the increase in revenues are due to higher average tariff levels in Boracay Water and Laguna Water.
Several subsidiaries also saw increases in billed volume during the year, namely Boracay Water and Estate Water, with the re-influx of tourists and the takeover of more property development projects, respectively.

NORTH LUZON

Clark Water

A partnership between MWPV and the Clark Development Corporation (CDC), Clark Water holds a 40-year concession within the 4,400-hectare main zone of the Clark Freeport Zone (CFZ) in the province of Pampanga. The CFZ continues to transform into an airport-driven urban center, housing high-end IT enabled industries, aviation and logistics, tourism and other sectors. Clark Water ensures that it provides these industries, as well as residents and tourists, have access to adequate water supply.

Clark Water has a total of 2,079 billed connections, comprised mostly by industrial and commercial locators. It sustains a 100 percent water service coverage with Non-Revenue Water (NRW) at an efficient level of 7.4 percent in 2019. In terms of wastewater, the company treated 7 million cubic meters (MCM) of wastewater and diverted 878 tons of organic pollution load. As a result, Clark Water was able to reduce emission by more than 5,002 tons of CO_2 (eq).

Clark Water's billed volume grew by two percent to 14.5 MCM, which led to the same percent increase in revenues to ₱464 million in 2019. It spent a total of ₱157 million for its capital expenditures, which were geared towards continuity of water and wastewater services. Meanwhile, Clark Water's rate rebasing exercise is still ongoing. Once approved, proposed projects to support the company's commitments to CDC and its customers will be implemented.

Bulacan Province

The Province of Bulacan is home to more than 3 million people and is comprised of three cities and 21 municipalities. Development in the province benefits from its proximity to Metro Manila but water supply remains as a fragmented market. Given this type of market, MWPV undertakes several water distribution contracts across the province.

In 2017, Manila Water partnered with the Obando Water District (OWD) and executed a 25-year Concession Agreement for the rehabilitation and management of the Municipality of Obando's water supply system and to provide water and sanitation services. Obando Water is a joint venture between Filipinas Water Holdings, Corp. (FWHC) and OWD. FWHC is a consortium between Manila Water and MWPV. In 2019, Obando Water has 9,284 billed connections with billed volume by of 1.8 MCM translating to revenues to ₱75 million. It also invested ₱56 million mostly related to water network projects.

Bulacan MWPV Development Corp. (BMDC) caters to Bulacan's residential subdivisions. In 2017, the company signed asset purchase agreements with three property developers namely, Asian Land Strategies Corporation, Solar Resources and Borland Development Corporation with a total of 8,095 billed connections as of 2019. The company posted an increase in billed volume by 13 percent to 1.8 MCM and increase in revenues by 48 percent to about ₱41 million.

Calasiao Water

A partnership between Manila Water and the Calasiao Water District, Calasiao Water holds a 25-year Concession Agreement for the development and operation of the water supply system in the Municipality of Calasiao Pangasinan. It is projected to cover 24 barangays with a total population of about 95,000 over the life of the concession. As of 2019, Calasiao Water serves 2,421 billed connection with billed volume of 0.4 MCM and revenues of ₱11 million. The company spent almost ₱14 million in capital expenditures for the improvement and expansion of water services in Calasiao.

SOUTH LUZON

Laguna Water

The Province of Laguna covers six cities and 24 municipalities with an estimated population of more than three million. It continues to transform several of its areas into commercial and industrial centers.

Laguna AAAWater Corporation (LAWC) was acquired in 2009 and is Manila Water's first public-private partnership outside of the Manila Concession. LAWC, along with the Provincial Government of Laguna (PGL) as its partner, continues to transform communities through the provision of water and wastewater services in its coverage area. The concession originally serves the cities of Biñan, Cabuyao and Sta. Rosa for a period of 25 years until 2035. Consequently, the success of the partnership between LAWC and PGL

189,068
Billed Connections

2,729 M
Capital Expenditures

19.25 MCM
Wastewater Treated

7,138 tons
BOD Removed

Laguna Water is committed to provide water and sanitation services in the province of Laguna

led to the amendment of the Concession Agreement (CA), specifically expanding the scope of the services to all the rest of the province. The amendment also included the provision of wastewater services and the establishment of an integrated sewage and septage system in the province. Since the amendment of the CA, LAWC has taken over the water distribution of the municipalities of Pagsanjan and some barangays in the municipalities of Calauan, Victoria, Lumban, and Pakil.

LAWC's revenues grew by 25 percent in 2019 to ₱1,668 million driven by the combined increase in billed volume (four percent) and average tariff (57 percent). NRW slightly increased by 1.2 percentage points to 18 percent mainly driven by old pipes from the newly acquired areas. LAWC will continue to rehabilitate the pre-existing systems to reduce NRW to a more efficient level. The company spent ₱546 million for its capital expenditures, mostly for expansion of water and wastewater networks within the concession area.

The introduction of LAWC's wastewater services led to the company treating more than two million cubic meters of wastewater. This is equivalent to about 316.8 tons of BOD removed, and avoidance of about 3,719 tons of organic pollution.

VISAYAS-MINDANAO

Boracay Water

Home to more than 35,000 residents, the island of Boracay is known for its talcum-fine beach and crystalline waters. Local economy of the island is driven by the influx of tourists but was hampered in the middle of 2018 when the government closed the island to address environmental issues. MWPV, through its subsidiary, Boracay Island Water Company (BIWC), supported government efforts to rehabilitate the island. Since the reopening of the island in late 2018, tourists have been visiting again reaching two million in 2019.

BIWC is a result of a joint venture between Manila Water and the government through the Tourism Infrastructure and Enterprise Zone Authority (TIEZA) and holds a 25-year concession to serve potable water and sewerage services in the island. The company has recovered after the closure which saw billed volume grow by 23 percent to 4.8 MCM primarily driven by the 116 percent increase in tourist arrivals. Likewise, the company posted a growth in revenues by 49 percent to ₱675 million. The company also reduced its NRW to 9.8 percent in 2019 from 13.8 percent in 2018 and spent ₱376 million in capital expenditures.

BIWC is committed to fulfilling its responsibility to the environment through the provision of wastewater services to its customer. In 2019, the company treated two million cubic meters of wastewater, equivalent to 544 tons of BOD removed and more than 3,200 tons of CO_2 (eq) emissions avoided.

Cebu Water

Cebu Water is a 30-year bulk water supply partnership with the Provincial Government of Cebu. It serves about two million people through the provision of 35 MLD of potable water to the Metropolitan Cebu Water District (MCWD). MCWD is the distributor to the province's large cities, specifically Metro Cebu, Lapu-Lapu, Mandaue and Talisay. Cebu Water's contract includes the construction of a water diversion structure, a water treatment plant and the laying of 32-kilometer pipeline from the plant in the town of Carmen to MCWD's water intake. This is the first water treatment facility to draw from surface water in the island which mostly relies on deep wells.

Cebu Water posted a decline in revenues by 5 percent to ₱182 million despite the slight increase in billed volume to about 13 MCM in 2019 from 12.8 MCM in 2018. In order to sustain provision of supply to MCWD, Cebu Water invested ₱101 million for water security.

Zamboanga Water

Zamboanga Water is Manila Water's first investment in Mindanao and is primarily focused on a 10-year NRW-reduction project in the Zamboanga City. It is in partnership with the Zamboanga Water District, holding the distinction of the first performance-based NRW-reduction project to be implemented in the Philippines.

The project commenced its operations in June 2015 with an objective to reduce a total of 28.7 MCM throughout the life of the project. The project is divided into phases, with the early stages requiring the design and construction of District Metering Areas followed by extensive leakage and repair throughout the distribution network.

In 2019, the company recovered 3.7 MCM, bringing the total recovered volume to 10.5 MCM. This is despite the suspension of leak repair activities on areas affected by the water rationing as the city continues to experience El Niño. Zamboanga Water posted revenues of about ₱163 million, driven by the company's locked in performance.

Tagum Water

Projected to start its operations in 2020, MWPV's bulk water supply project in Tagum City, Davao del Norte is 100 percent complete and is already in the commissioning phase.

The project was signed in 2015 and includes the construction of the Tagum Water Treatment Plant with a capacity of 38 MLD. Upon completion of the treatment plant, it will supply Tagum City Water District with 26 MLD of treated water on its first three years of operations. On its fourth to sixth year, the company will supply 32 MLD and will increase thereafter for the remainder of the 15-year delivery period to 38 MLD.

Estate Water continues to operate and manage the water systems of townships developed by Ayala Land, Inc.

Estate Water

Estate Water is MWPV's operating division which specializes in business-to-business partnerships, leveraging on the company's operations and maintenance of water and wastewater systems expertise. It caters to the property development segment with its value generated from reducing its partners' development costs and providing best-in class service levels.

Estate Water started in 2016 providing property developers appropriate master-planned water extraction and wastewater facilities, efficient management of facilities and networks, regulatory and environmentally compliant operations and high-quality customer service.

In 2019, Estate Water posted revenues of ₱1,350 million driven by an increase in billed volume to 10.5 MCM, as well as the significant increase in supervision fees to more than ₱800 million. It also spent ₱1,235 million in capital expenditures for the development of water and wastewater infrastructures.

Manila Water's commitment to the environment is also present in Estate Water's operations. In 2019, it treated 8.15 MCM of wastewater which led to the removal of about 5,432 tons of BOD and avoidance of more than 32,029 tons of CO2 (eq).

Manila Water Asia Pacific

Saigon Water Office in Ho Chi Minh City, Vietnam

Establishing Manila Water's growing presence in the ASEAN region, Manila Water Asia Pacific (MWAP) has become a remarkable regional player gearing up to take advantage of new partnerships and investment internationally, particularly in countries that encourage foreign investments in the water and wastewater industry.

As Manila Water's platform of expansion outside the Philippines, MWAP leverages the company's skillsets through sharing of environmentally responsible and sustainable practices among its peers in the water sector.

VIETNAM

In 2008, Manila Water in partnership with Saigon Water Company (SAWACO) successfully ventured and started out a five-year World Bank–funded non-revenue water (NRW) reduction pilot project in the Zone 1 of Ho Chi Minh City. Today it has turned into a much longer and valuable business relationship between the two parties, testifying to the value and operational efficiency that Manila Water has been able to create in Vietnam.

The goal had been to recover 38 million liters per day (MLD) from the network, but the actual volume that was recovered at the end of the project contract in 2014 was threefold at 130 MLD. The successful implementation of the project had a substantial impact to the previously unserved service areas of SAWACO, and more importantly resulted in MWAP earning the trust of the Vietnamese authorities and its local partners. This paved the way for the expansion of MWAP's business engagements in Vietnam as it acquired two more bulk water companies under a take-or-pay arrangement. Both Thu Duc Water and Kenh Dong Water supply treated water to SAWACO, effectively covering one-third of the demand of Ho Chi Minh City's 8.5 million population.

Manila Water owns 49 percent stake in Thu Duc Water, which supplies 300 MLD to two urban (Districts 2 and 7) and three suburban (District 9, Nha Be, and Thu Duc) districts under a 50-year bulk water supply contract. Thu Duc Water consistently delivers its commitment under the contract, with 110.5 MCM sold for the period ending December 31, 2019, generating revenues of VND337 billion (under Vietnamese Accountin Standards). The company is currently seeking necessary approvals to expand its capacity to 600 MLD to serve more communities in Ho Chi Minh City.

Manila Water also owns 47.35 percent stake in Kenh Dong Water, which supplies to suburban districts of Binh Tan, Tan Phu, and District 12 in the southern part of Ho Chi Minh City. Kenh Dong Water operates under a 20-year bulk water supply contract for 150 MLD with a potential to expand to 200 MLD. Kenh Dong Water's billed volume in 2019 is at 61.8 MCM, an increase by 8 percent from 2018, and translated to an increase in revenues by 12 percent to VND246 billion.

Manila Water likewise owns 37.99 percent stake of Saigon Water Infrastructure Corporation (Saigon Water), a holding company in Vietnam that is listed in the Ho Chi Minh Stock Exchange. It is MWAP's vehicle to secure water supply, water distribution, and wastewater treatment contracts across the country. Cu Chi Water, its first concession-like project, is a Build-Own-Operate (BOO) water-supply system project in the Cu Chi District with a population of about 418,655.

Saigon Water's major investments are Tan Hiep Water, a bulk water supplier to Hoc Mon in Ho Chi Minh City with a capacity of 300 MLD, and Gia Lai Water, a 20 MLD water distribution company servicing the Central highlands of Gia Lai Province. Hoc Mon's population is around 446,056, while Gia Lai Province has a population of roughly 1,437,400.

The company recorded a total consolidated billed volume of 106.0 MCM in 2019, higher by 27 percent from the previous year due to the increase in the Cu Chi Project by 2.6 MCM and Tan Hiep 2 by 27.9 MCM. Total revenues of Saigon Water increased by 3 percent to VND 494 billion due to higher revenues from its Tan Hiep operations, but was partly offset by lower revenues from other investments.

At present, MWAP is the largest direct foreign investor in Vietnam's water sector supplying approximately 50 percent of the bulk water requirements of Ho Chi Minh City.

INDONESIA

In 2015, Manila Water strengthened its ASEAN presence by entering into a Memorandum of Understanding with PDAM Tirtawening Kota Bandung (PDAM Bandung), a water utility company owned and controlled by the city government of Bandung. Manila Water sought to reduce NRW in Bandung City, the capital of Indonesia's West Java province.

Bandung is the country's fourth largest city by land area and third largest city by population, with over 2.4 million inhabitants. As with its initial project in Vietnam, MWAP was able to establish to the Indonesian market its best practices after it completed the NRW reduction project and reduced its systems losses from 59 percent to 23 percent. Consequently, the project recovered 134,400 liters per day, which were enough to serve 379 new households or 1,590 people.

Manila Water also owns 20 percent stake in PT Sarana Tirta Ungarang (STU), a bulk water supply provider to industrial areas in Semarang, Indonesia. In 2019, PT STU sold 5.3 MCM, generating revenues of IDR21 billion. In the same period, PT STU reported net income of about IDR4 billion, higher by 44 percent from the previous year. Manila Water's 20 percent share in income from PT STU is reflected in the consolidated financial statements at ₱1.48 million.

665.6 MCM
Billed Volume

₱654 M
Equity Share in
Net Income of Associates

13.7 M
Population Served

Manila Water Asia Pacific continues to expand its presence through its affiliates in the region

THAILAND

Manila Water's strategic entry in Thailand commenced in 2018. Through a Share Purchase Agreement with Electricity Generating Public Company Limited (EGCO), Manila Water acquired an 18.72 percent stake in Eastern Water Resources Development and Management Public Company Limited (East Water). East Water is a water supply and distribution company whose shares are listed in the Stock Exchange of Thailand and is known to support sustainable practices in water supply and distribution.

East Water provides raw and tap water supply in the country's eastern region, which covers the main industrial area of the country with a total area of 13,285 square kilometers or nearly as large as the CALABARZON region in the Philippines. The business draws its water from a combination of river diversion and ground water.

The earnings contribution from this newly acquired associate in Thailand have begun to pick up as it already contributed ₱295 million as of end of 2019 on the back of a 382.1 MCM billed volume.

MWAP continues to build partnerships in Thailand, underpinning Manila Water's thrust to leverage on its operational successies which propels investments in the water and wastewater sector regionally.

Manila Water Total Solutions

Healthy Family continues to provide high-quality drinking water

Centered on providing innovative water supply and sanitation products and services, Manila Water Total Solutions (MWTS) has served as an incubator of new business opportunities throughout the water cycle. It is driven by its core strategy to offer comprehensive expertise on after-the-meter services. The company develops both end-consumer and system solutions in the water and wastewater value chain, which are then delivered at scale and with a commitment to protecting the environment. Specifically, these include provision of network and technical services under its Corporate Accounts Management (CAM) business, and the sale of packaged purified water through the Healthy Family brand.

CORPORATE ACCOUNTS MANAGEMENT

The proper management of resources, specifically water, has been a focus of modern communities. Townships and vertical developments aim to build infrastructures that are aligned with this and at the same time achieving efficiency and quality.

Through CAM, the company offers solutions to the water and wastewater network needs of its clients, mainly property developers. These services include master planning and design, water and sewer pipe-laying, integrated wastewater solutions, and construction management.

The primary services of CAM are (1) Pipe-laying in horizontal developments and townships, providing sustainable solutionsto its customers through the design and construction of water, wastewater, and gray water networks; and (2) The Integrated Used Water Solutions (IUS), which addresses the unserved market of wastewater management services. Its primary clients are major land developers, commercial, and industrial customers that seek sustainable but cost-effective means to comply with environmental regulations.

At the end of 2019, CAM posted revenues of ₱196 million from ₱229 million due to lower number of live contracts.

To date, the entire CAM business had total contracted projects amounting to ₱1.63 billion, comprising of pipe-laying works at 68 percent or ₱1.11 billion, IUS at 24 percent or ₱395 million, and PID at 8 percent or ₱129 million.

HEALTHY FAMILY PACKAGED PURIFIED WATER

Manila Water remains committed to providing clean, safe and potable water up to its customers water meter. However, the demand for package water as a result of distrust towards one's household after-the-meter or internal plumbing persists. Households prefer purified water to avoid the mandatory residual chlorine in tap water. As a response, MWTS, through its Healthy Family (HF) brand, offered purified water in 5-gallon containers with guaranteed shelf life of six months.

Establishing its presence in the purified water market, HF now has three variants. The 500-ml bottle (500-ml HF Mini) was launched in 2017, which are retailed in packs or cases of 24 bottles. Two new variants were commissioned and commercialized in 2018: the 350-ml bottle (350-ml HF Mini), which was launched in July 2018, and the one-liter bottle, which was launched in December 2018.

All HF variants connect to the same distribution network that provides livelihood and employment opportunities to over 200 partner distributors. HF currently has two plants with a total production capacity of 30,000 containers per day. Its customer base currently covers Metro Manila, and its growing key accounts include government institutions, hotels, schools, hospitals, BPO offices, fitness centers, and sari-sari stores.

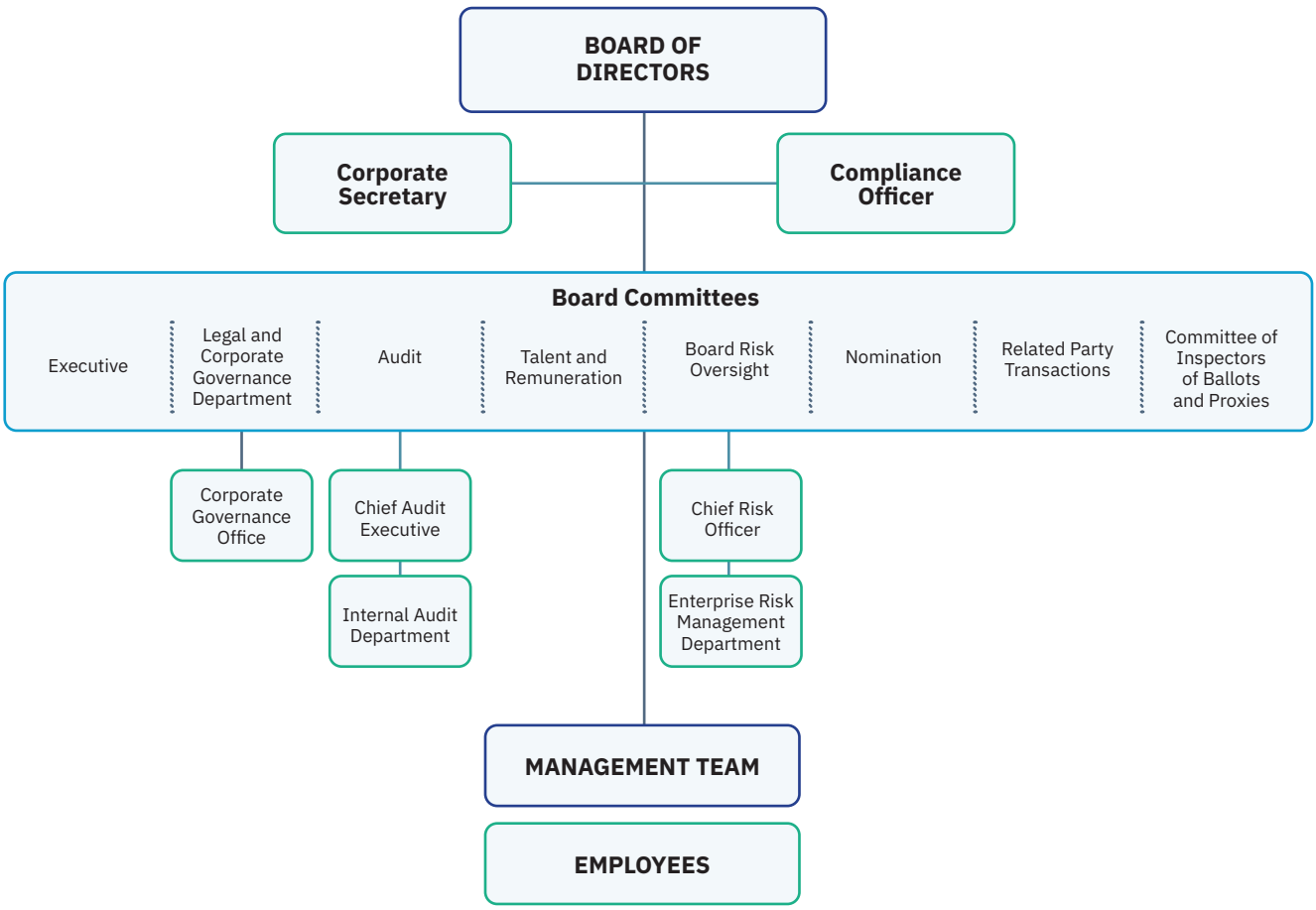
2,307,274
Total bottles sold (five-gallon) in 2019

3,367,800
Total bottles sold (HF Mini) in 2019

Corporate Governance

Manila Water prides itself in its Board of Directors (the "Board"), composed of highly competent individuals who are well recognized in their respective fields and in the business community. The Board provides a clear vision towards the formulation of sound corporate strategies, and oversees the systemization, improvement and upholding of transparency in governance. The Board provides guidance in achieving fairness and accountability in all major dealings of the Company, with the objective of protecting the interests of its stakeholders. In this connection, the Board fulfills certain key functions, including: reviewing and guiding corporate strategy, major plans of action, risk policy, annual budgets and business plans; setting performance objectives; monitoring implementation and corporate performance; and overseeing/approving major capital expenditures, acquisitions, and divestitures; monitoring the effectiveness of governance practices and making changes as needed; selecting, compensating, monitoring and, when necessary, replacing key executives and overseeing succession planning; aligning key executive and board remuneration with the longer term interests of the Company and its stakeholders; ensuring a formal and transparent board nomination and election process; and monitoring and managing potential conflicts of interest of management, board members, shareholders and stakeholders, including misuse of corporate assets and abuse in related party transactions.

CORPORATE GOVERNANCE STRUCTURE



BOARD COMPOSITION

The Board has eleven (11) members who are elected by the stockholders during the annual stockholders' meeting (ASM). All nominations to the Board are undertaken in accordance with the Manual of Corporate Governance (the "Manual"), amended Bylaws, the Charter of the Board, and the existing rules and regulations. Upon receipt of all nominations, the Nomination Committee convenes to evaluate the qualifications of nominees for election to the Board. In evaluating the nominations, the Nomination Committee adheres to the criteria for selection and the qualifications and disqualifications of directors set forth in the Manual, the Securities Regulations Code (SRC), the Revised Corporation Code, and those under existing laws, rules, and regulations. After deliberation, the Nomination Committee and the Board issue a resolution endorsing the election of the qualified nominees at the ASM. The members of the Board so elected at the ASM hold office for one year, and until their successors have been elected and qualified in accordance with the amended By-laws. The elected members of the Board are mandated to oversee the management of the Company, and, in the performance of their duties, must exercise their best and unbiased judgment to protect and promote the interest of the Company and its stakeholders.

PRINCIPLES AND PROCEDURES FOR NOMINATION AND ENDORSEMENT FOR ELECTION OF CANDIDATES TO THE BOARD OF DIRECTORS

Manila Water encourages the selection of a mix of competent directors, each of whom can add value and contribute independent judgment to the formulation of sound corporate strategies and policies. Manila Water values the inputs and opinions of each Director, ensuring that a Director shall not be discriminated upon by reason of gender, age, ethnicity, political, religious or cultural beliefs. Towards this end, the Board has adopted a policy of diversity in gender, age and ethnicity, as well as religious, political or cultural background. Through this policy, the Board encourages shareholders to nominate and select individuals who will promote diversity in the membership of the Board. Moreover, the Board ensures a formal and transparent board nomination and election process. Towards this end, the following procedure and principles are observed in the nomination of candidates for election to the Board:

A. Every stockholder, including the minority and non-controlling, has a right to submit nominations for election to the Board. All nominations to the Board, whether for first time nominees or repeat nominees, or for independent directors, shall be submitted to the Nomination Committee, through the Office of the Corporate Secretary, at least thirty (30) working days before the date of the ASM. The stockholders, in making their nominations, or the Company, may make use of professional search firms or external sources of candidates when searching for candidates to the Board.

Chairman Fernando Zobel de Ayala
during the 2019 Annual Stockholders' Meeting

B. Process of Endorsing Nominations

i. The Nomination Committee shall hold a meeting for the specific purpose of determining whether the nominees to the Board have all the qualifications and none of the disqualifications specified in the Manual, the SRC, the Revised Corporation Code, and the applicable laws, rules and regulations.
ii. The Nomination Committee shall evaluate each and every nomination and for this purpose, may even make an inquiry with their professional networks and outside references.

The Nomination Committee shall undertake the process of identifying the quality of directors aligned with the Company's strategic directions. Towards this end, the Committee shall confirm that all nominees for election have all the qualifications and none of the disqualifications to become directors, and that they have the competence and professional background that will enable them to perform their duties as directors of a highly regulated business as that of Manila Water. If the ground for disqualification of a nominated director becomes known prior to the scheduled annual stockholders' meeting, the nominated director will not be endorsed for election at the stockholders' meeting except when such disqualification is temporary and the same is cured or remedied prior to the scheduled stockholders' meeting.

A director with temporary disqualification may still be endorsed by the Nomination Committee for election at the annual stockholders' meeting subject to the sixty (60) day curing period, if the ground for temporary disqualification is capable of being cured. However, if the disqualification becomes permanent after endorsement by the Nomination Committee and before the annual stockholders' meeting, the nominee shall be given the discretion to refuse his nomination. If the nominee is thereafter elected, or the disqualification becomes permanent during his term of office, the provisions of the Manual and the Revised Corporation Code on removal of directors shall apply.

i. After evaluation of the qualifications/disqualifications of the nominees, the Nomination Committee shall issue a resolution whether or not it endorses the nominees for election to the Board of Directors.
ii. If a nominee is not endorsed for election by reason of a disqualification, the resolution of the Nomination Committee should clearly specify the grounds relied upon for disqualification.
iii. The Chairman of the Board shall provide input to the Nomination Committee on its recommendation for approval of (a) candidates for nomination or appointment to the Board; (b) members and chairs of Board Committees; and (c) appointment of Executive Officers.

C. Election of Directors

The directors of the Company shall be elected by majority vote at the annual meeting of the stockholders at which a quorum is present. At each election for directors every stockholder shall have the right to vote, in person or by proxy, the number of shares owned by him for as many persons as there are directors to be elected, or to cumulate his votes by giving one candidate as many votes as the number of such directors multiplied by the number of his shares shall equal, or by distributing such votes at the same principle among any number of candidates.

QUALIFICATIONS OF DIRECTORS

A Director of the Company shall have the following general qualifications:

a. Ownership of at least one (1) share of the capital stock of the Company;
b. At least twenty-one (21) years of age;
c. A college degree or its equivalent or adequate competence and understanding of the fundamentals of doing business or sufficient experience and competence in managing a business to substitute for such formal education;
d. Possesses integrity, probity and shall be diligent and assiduous in the performance of his functions;
e. Other relevant qualifications, such as membership in good standing in business, professional organizations or relevant industry; and
f. Non-executive directors should possess such qualifications and stature that would enable them to effectively participate in the deliberations of the Board.

A Director of the Company shall have the following specific qualifications:

a. Non-executive directors should possess such qualifications and stature to effectively participate and help secure objective, independent judgment on corporate affairs and to substantiate proper checks and balances;

b. Directors who are members of Board Committees shall have such additional qualifications necessary to effectively discharge the functions of the relevant Board Committee;
c. At least one of the independent directors must have accounting expertise (accounting qualification or experience);
d. At least one non-executive director must have prior working experience in the sector that Manila Water is operating in. Independent directors must have all requisite qualifications for independence under Securities and Exchange Commission ("SEC") Memorandum Circular No. 16, Series of 2002;
e. Officers, executives and employees of the Company may be elected as directors but cannot and shall not be characterized as independent directors;
f. If a director elected or appointed as an independent director becomes an officer, employee or consultant of the Company, the Company shall forthwith cease to consider him as an independent director;
g. If the beneficial ownership of an independent director in the Company or its related corporations shall exceed two percent (2%) of the subscribed capital stock of such corporation, the Company shall forthwith cease to consider him as an independent director. However, should the independent director take the appropriate action to remedy or correct the disqualification within sixty (60) days from the occurrence of the ground, he may still be considered an independent director.

PERMANENT DISQUALIFICATIONS OF DIRECTORS

A Director with the following disqualifications shall never be nominated and/or elected to the Board, or if nominated and elected, shall be removed from office:

a. Any person who has been finally convicted by a competent judicial or administrative body of the following: (i) any crime involving the purchase or sale of securities as defined in the SRC, e.g. proprietary or non-proprietary membership certificate, commodity futures contract, or interest in a common trust fund, pre-need plan, pension plan or life plan; (ii) any crime arising out of the person's conduct as an underwriter, broker, dealer, investment corporation, investment adviser, principal distributor, mutual fund dealer, futures commission merchant, commodity trading advisor, or floor broker; or, (iii) any crime arising out of his fiduciary relationship with a bank, quasi-bank, trust company, investment house or as an affiliated person of any of them;
b. Any person who, by reason of any misconduct, after hearing or trial, is permanently or temporarily enjoined by order, judgment or decree of the SEC or any court or other administrative body of competent jurisdiction from: (i) acting as an underwriter, broker, dealer, investment adviser, principal distributor, mutual fund dealer, futures commission merchant, commodity trading advisor, or a floor broker; (ii) acting as a director or officer of a bank, quasi-bank, trust company, investment house, investment company or an affiliated person of any of them; (iii) engaging in or continuing any conduct or practice in connection with any such activity or willfully violating laws governing securities, and banking activities. Such disqualification shall also apply when such person is currently subject to an effective order of the SEC or any court or other administrative body refusing, revoking or suspending any registration, license or permit issued under the Revised Corporation Code, SRC, or any other law administered by the SEC or Bangko Sentral ng Pilipinas ("BSP"), or under any rule or regulation promulgated by the SEC or BSP, or otherwise restrained to engage in any activity involving securities and banking. Such person is also disqualified when he is currently subject to an effective order of a self-regulatory organization suspending or expelling him from membership or participation or from association with a member or participant of the organization;
c. Any person finally convicted judicially or administratively of an offense involving moral turpitude or fraudulent acts or transgressions such as, but not limited to, embezzlement, theft, estafa, counterfeiting, misappropriation, forgery, bribery, false affirmation or perjury;
d. Any person finally found by the SEC or a court or other administrative body to have willfully violated, or willfully aided, abetted, counseled, induced or procured the violation of any provision of the SRC, the Revised Corporation Code, or any other law administered by the SEC, or any rule, regulation or order of the SEC or the BSP;
e. Any person judicially declared to be insolvent;
f. Any person found guilty by final judgment or order of a foreign court or equivalent financial regulatory authority of acts, violations or misconduct similar to any of the acts, violations or misconduct enumerated previously;
g. Any person convicted by final and executory judgment of an offense punishable by imprisonment for a period exceeding six (6) years, or a violation of the Revised Corporation Code, committed within five (5) years prior to the date of his election or appointment; and

h. No person shall qualify or be eligible for nomination or election to the Board of Directors if he is engaged in any business which competes with or is antagonistic to that of the Company. Without limiting the generality of the foregoing, a person shall be deemed to be so engaged – (i) If he is an officer, manager or controlling person of, or the owner (either of record or beneficially) of 10 percent or more of any outstanding class of shares of, any corporation (other than one in which the Company owns at least 30 percent of the capital stock) engaged in a business which the Board, by at least three-fourths (3/4) vote, determines to be competitive or antagonistic to that of the Company, or (ii) If he is an officer, manager or controlling person, or the owner (either of record or beneficially) of 10 percent or more of any outstanding class of shares of any other corporation or entity engaged in any line of business of the Company, or when in the judgment of the Board, by at least three-fourths (3/4) vote, deems that the laws against combinations in restraint of trade shall be violated by such person's membership in the Board of Directors; or (iii) If the Board, in the exercise of its judgment in good faith, determines by at least three-fourths (3/4) vote that he is the nominee of any person set forth in (h.i) or (h.ii). In determining whether or not a person is a controlling person, beneficial owner, or the nominee of another, the Board may take into account such factors as business and family relations.
i. Other grounds as the SEC may prescribe.

TEMPORARY DISQUALIFICATION OF DIRECTORS

The following are grounds for temporary disqualification of incumbent directors:

a. Refusal to fully disclose the extent of his business interest as well as refusal to comply with all other disclosure requirements under the SRC and its IRR. This disqualification shall be in effect as long as his refusal persists;
b. Absence or non-participation in more than fifty percent (50%) of all meetings, both regular and special, of the Board during his incumbency, or any twelve (12) month period during said incumbency unless such absence was due to illness, death in the immediate family or serious accident. This disqualification applies for purposes of the succeeding election;
c. Dismissal or termination for cause as director of any publicly listed company, public company, registered issuer of securities and holder of a secondary license from the SEC. The disqualification should be in effect until he has cleared himself from any involvement in the cause that gave rise to his dismissal or termination;
d. Being under preventive suspension by the Company for any reason;
e. If the beneficial equity ownership of an independent director in the Company or its subsidiaries and affiliates exceed two percent (2%) of its subscribed capital stock. The disqualification from being elected as an independent director is lifted if the limit is later complied with;
f. Conviction that has not yet become final referred to in the grounds for permanent disqualification of directors;
g. A finding of existence of temporary disqualification shall be at the discretion of the Board and shall require a resolution of a majority of the Board. A director shall have sixty (60) days upon the occurrence of any ground for temporary disqualification to remedy or correct the same otherwise, the disqualification shall become permanent.

ROLES AND RESPONSIBILITIES OF THE BOARD OF DIRECTORS

The Corporate Governance Manual provides that "The Board should have a Board Charter that formalizes and clearly states its roles, responsibilities and accountabilities in carrying out its fiduciary duties. The Board Charter should serve as a guide to the directors in the performance of their functions and should be publicly available and posted on the Company's website." The Charter of the Board implements the aforesaid provision of the Manual.

The Charter of the Board specifically:

a. Outlines the composition, manner of election, and term of office of the Board, ensuring a formal and transparent board nomination and election process;
b. Enumerates the qualifications of Directors, and the manner by which they may be nominated;
c. Indicates the process for selection, appointment, and re-appointment of Directors;
d. Provides the grounds for temporary or permanent disqualification of directors, removal of a director, suspension, and reinstatement of a director;
e. Outlines the functions and responsibilities, manner of appointment and removal, and qualifications of the Chairman of the Board. The Charter also provides for the access limits of the Chairman to management and employees, as well as external advisors, consultants, and legal counsel;

f. Indicates that the Board should adhere to the Company's Code of Business Conduct and Ethics, promote and observe diversity in its membership composition, and follow the guidelines regarding the holding of multiple directorships outside of the Company; and
g. Ensure that there is a quorum comprising two-thirds (2/3) of the number of directors as fixed in the Articles of Incorporation.

Note: This portion no longer appears in the Charter of the Board: "sets out the specific functions of the Chairman of the Board, emphasizing their separate roles and responsibilities."

The Board's Governance Responsibilities

a. The Board members shall act on a fully informed basis, in good faith, with due diligence and care, and in the best interest of the Company and all shareholders;
b. The Board shall oversee the development of and approve the Company's business objectives and strategy, and monitor their implementation, in order to sustain the Company's long-term viability and strength;
c. The Board shall be responsible for ensuring and adopting an effective succession planning program for directors, key officers and management to ensure growth and a continued increase in the shareholders' value. This includes adopting a policy on the retirement age for directors and key officers as part of management succession and to promote dynamism in the Company;
d. The Board should align the remuneration of key officers and board members with the long-term interests of the Company. In doing so, it should formulate and adopt a policy specifying the relationship between remuneration and performance. Further, no Director should participate in discussions or deliberations involving his own remuneration;
e. The Board should have the overall responsibility in ensuring that there is a groupwide policy and system governing related party transactions (RPTs) and other unusual or infrequently occurring transactions, particularly those which pass certain thresholds of materiality. The policy should include the appropriate review and approval of material or significant RPTs, which guarantee fairness and transparency of the transactions. The policy should encompass all entities within the Group, taking into account their size, structure, risk profile and complexity of operations;
f. The Board should be primarily responsible for approving the selection and assessing the performance of the Management led by the Chief Executive Officer (CEO), and control functions led by their respective heads (Chief Risk Officer, Chief Compliance Officer, and Chief Audit Executive);
g. The Board should ensure the establishment of an effective performance management framework that will ensure that the Management, including the Chief Executive Officer, and personnel's performance is at par with the standards set by the Board and Senior Management;
h. The Board should ensure the integrity of the Company's accounting and financial reporting systems, including the independent audit, and that appropriate systems of control are in place, in particular, systems for risk management, financial and operational control, and compliance with the law and relevant standards;
i. The Board should oversee that an appropriate internal control system is in place, including setting up a mechanism for monitoring and managing potential conflicts of interest of Management, board members, and shareholders, including misuse of corporate assets and abuse in related party transactions. The Board should also approve the Internal Audit Charter;
j. The Board should oversee that a sound enterprise risk management (ERM) framework is in place to effectively identify, monitor, assess and manage key business risks. The risk management framework should guide the Board in identifying units/business lines and enterprise-level risk exposures, as well as the effectiveness of risk management strategies;
k. The Board should adopt a Code of Business Conduct and Ethics, which would provide standards for professional and ethical behavior, as well as articulate acceptable and unacceptable conduct and practices in internal and external dealings. The Code should be properly disseminated to the Board, senior management and employees. It should also be disclosed and made available to the public through the Company website;
l. The Board should monitor the effectiveness of the Company's governance practices and make changes as needed;
m. The Board should oversee the process of disclosure and communications;
n. The Board shall regularly review, at least annually, the mission and vision of the Company and shall revise the same, as may be necessary, in accordance with the strategic directions of the Company;
o. The Board shall conduct an annual performance evaluation of the performance of the Board and Committee Processes and Meetings, compliance with the responsibilities and functions of the Board and Board Committees, relationship of the board and management, self-evaluation of each board member, the performance of the Chief Executive Officer (CEO), President, and senior management.

INDEPENDENT DIRECTORS

In compliance with the requirements of the law, the Company's Manual, and the rules and regulations of the SEC, the Company has four (4) independent directors as members of the Board. Under Article 3, Section 2 of the Revised Corporate Governance Manual, Independence is defined as "with respect to any person, the absence of any restrictions or limitations or freedom from any interests or relationships that would interfere with the exercise of impartial and objective judgment in carrying out the responsibilities of that person".

A director is considered to be independent if he/she holds no interests or relationships with the Company that may hinder their independence from the Company or its management, which would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

The Company also subscribes to the requirements of independence under existing laws, rules and regulations, in particular, the SEC Memorandum Circular No. 16, Series of 2002. Hence, the Company ensures that its independent directors have all the qualifications and none of the disqualifications specified in the said SEC Memorandum Circular.

BOARD COMMITTEES

The Board is supported by the following committees, namely: Executive Committee, Audit Committee, Related Party Transactions Committee, Nomination Committee, Talent and Remuneration Committee, Board Risk Oversight Committee, Corporate Governance Committee, and the Committee of Inspectors of Ballots and Proxies. These Committees are required to report a summary of the actions taken on matters submitted to them for consideration at the next meeting of the Board of the Directors. Each of the Board Committees has its own charter that provides guidance on the manner by which its members and the committees should exercise their functions and mandates.

Executive Committee

- The Board shall appoint from among its members an Executive Committee composed of five (5) members, a majority of whom shall be citizens of the Philippines and shall designate one of such members as Chairman of the Executive Committee.
- The Executive Committee, in accordance with the authority granted by the Board, or during the absence of the Board, shall act by majority vote of all its members on such specific matters within the competence of the Board of Directors, except with respect to –

    a. Approval of any action for which shareholders' approval is also required
    b. The filling of vacancies on the Board
    c. The amendment or repeal of By-Laws or the adoption of new By-Laws
    d. The amendment or repeal of any resolution of the Board of Directors which by its express terms is not so amendable or repealable
    e. The distribution of cash dividends and
    f. The exercise of powers delegated by the Board exclusively to other committees, if any.

- The Executive Committee meets as needed and performs such other functions as may be properly delegated to it by the Board.
- The Committee shall refer the resolution of matters to the Board Committee that has the authority or competence to act on those matters in accordance with their respective Charters.
- The Committee shall be guided by the Company's mission and vision in the fulfillment of its functions.
- The Executive Committee held twelve (12) meetings in 2019.

Corporate Governance Committee

- The Corporate Governance Committee (CG Committee) is tasked with ensuring compliance with and proper observance of corporate governance principles and practices.
- The CG Committee shall be composed of three (3) members, all of whom shall be independent directors, including the Chairman.
- The CG Committee oversees the implementation of the corporate governance framework and periodically reviews the said framework to ensure that it remains appropriate in light of material changes to the Company's size, complexity and business strategy, as well as its business and regulatory environments;
- Oversees the periodic performance evaluation of the Board and its committees as well as executive management, and conducts an annual self-evaluation of its performance;

- Ensures that the results of the Board evaluation are shared, discussed, and that concrete action plans are developed and implemented to address the identified areas for improvement;
- Recommends continuing education/training programs for directors, and assignment of tasks/projects to Board committees;
- Adopts corporate governance policies and ensures that these are reviewed and updated regularly, and consistently implemented in form and substance; and
- Performs other functions as may be delegated by the Board from time to time.
- The CG Committee met four (4) times in 2019.
- On September 24, 2019, the Committee approved the amendment of the Insider Trading Policy. The amendment was ratified by the Board of Directors on September 27, 2019.

Audit Committee

- The Audit Committee shall be composed of four (4) non-executive directors as members, the majority of whom shall be independent directors, and shall be chaired by an independent director. The Chairman of the Audit Committee shall not be the Chairman of the Board or of any other committee. All members of the committee must have relevant background, knowledge, skills, and/or experience in the areas of accounting, auditing and finance, and must possess an adequate understanding of the Company's financial management systems and environment, in particular.
- Responsible for overseeing the senior management in establishing and maintaining an adequate, effective and efficient internal control framework. It ensures that systems and processes are designed to provide assurance in areas including reporting, monitoring compliance with laws, regulations and internal policies, efficiency and effectiveness of operations, and safeguarding of assets;
- Recommends the approval of the Internal Audit Charter (IA Charter) which formally defines the role of Internal Audit and the audit plan as well as oversees the implementation of the IA Charter;
- Through the IA Department, monitors and evaluates the adequacy and effectiveness of the Company's internal control system, integrity of financial reporting, and security of physical and information assets. Well-designed internal control procedures and processes that will provide a system of checks and balances should be in place in order to (i) safeguard the Company's resources and ensure their effective utilization, (ii) prevent occurrence of fraud and other irregularities, (iii) protect the accuracy and reliability of the Company's financial data, and (iv) ensure compliance with applicable laws and regulations;
- Oversees the IA Department, and recommends the appointment and/or grounds for removal of an internal audit head or Chief Audit Executive (CAE). The Audit Committee should also approve the terms and conditions for outsourcing internal audit services;
- Establishes and identifies the reporting line of the Internal Auditor to enable him to properly fulfill his duties and responsibilities. For this purpose, he should directly report to the Audit Committee;
- Reviews and monitors Management's responsiveness to the Internal Auditor's findings and recommendations;
- Prior to the commencement of the audit, discusses with the External Auditor the nature, scope and expenses of the audit, and ensures the proper coordination if more than one audit firm is involved in the activity to secure proper coverage and minimize duplication of efforts;
- Evaluates and determines the non-audit work, if any, of the External Auditor, and periodically reviews the non-audit fees paid to the External Auditor in relation to the total fees paid to him and to the Company's overall consultancy expenses. The committee should disallow any non-audit work that will conflict with his duties as an External Auditor or may pose a threat to his independence. The non-audit work, if allowed, should be disclosed in the appropriate reports to the regulatory bodies and agencies (e.g. Company's Annual Report and Annual Corporate Governance Report, among others);
- Reviews and approves the Interim and Annual Financial Statements before their submission to the Board, with particular focus on the following matters:

    a. Any change/s in accounting policies and practices
    b. Areas where a significant amount of judgment has been exercised
    c. Significant adjustments resulting from the audit
    d. Going concern assumptions
    e. Compliance with accounting standards
    f. Compliance with tax, legal and regulatory requirements

- Reviews the financial statements and all related disclosures and reports certified by the Chief Finance Officer (CFO) and released to the public and/or submitted to the Securities and

Exchange Commission for compliance with both the internal financial management handbook and existing financial accounting standards, legal and regulatory requirements;

- Ensure that a transparent financial management system is established to ensure the integrity of internal control activities throughout the organization;
- Maintain at international standards, the Company's accounting and auditing processes, practices and methodologies, and ensure that:

    a. The accounting system of the Company is compliant with the current and existing financial accounting standards;
    b. An accountability statement is in place that specifically identifies officers and/or personnel directly responsible for the accomplishments of such task;
    c. Reviews the disposition of the recommendations in the External Auditor's management letter.

- Review and approve management representation letter before the same is submitted to the independent auditor;
- Communicate with the Company's legal officer/s or counsel/s regarding litigations, claims, contingencies or other significant legal issues that may have an impact on the financial standing of the Company;
- Performs oversight functions over the Company's Internal and External Auditors. It ensures the independence of Internal and External Auditors, and that both auditors are given unrestricted access to all records, properties and personnel to enable them to perform their respective audit functions;
- Coordinates, monitors and facilitates compliance with laws, rules and regulations;
- Recommends to the Board the appointment, reappointment, removal and fees of the External Auditor, duly accredited by the SEC, who undertakes an independent audit of the Company, and provides an objective assurance on the manner by which the financial statements should be prepared and presented to the stockholders;
- Meets at least every quarter and before the quarterly Board Meetings and when needed; and
- Performs other functions as may be delegated by the Board from timeto time;
- Dr. Jaime C. Laya, a member of the Audit Committee, and an independent director, is a Certified Public Accountant;
- The Audit Committee held four (4) regular meetings and one (1) special meeting in 2019.

Related Party Transactions Committee

- The Related Party Transactions (RPT) Committee is composed of three (3) independent directors, and is chaired by an independent director.
- Is Primarily tasked with the duty of enforcing and implementing the Related Party Transactions Policy of the Company.
- Evaluates on an ongoing basis existing relation between and among businesses and counterparties to ensure that all related parties are continuously identified, RPTs are monitored, and subsequent changes in relationships with counterparties (from non-related to related and vice versa) are captured. Related parties, RPTs and changes in relationships should be reflected in the relevant Reports to the Board and regulators/supervisors;
- Evaluates all material RPTs to ensure that these are not undertaken on more favorable economic terms (e.g., price, commissions, interest rates, fees, tenor, collateral requirement) to such related parties than similar transactions with non-related parties under similar circumstances and that no corporate or business resources of the Company are misappropriated or misapplied, and to determine any potential reputational risk issues that may arise as a result of or in connection with the transactions. In evaluating RPTs, the RPT Committee takes into account, among others, the following:

    a. The related party's relationship to the Company and interest in the transaction;
    b. The material facts of the proposed RPT, including the proposed aggregate value of such transaction;
    c. The benefits to the Company of the proposed RPT;
    d. The availability of other sources of comparable products or services; and
    e. An assessment of whether the proposed RPT is on terms and conditions that are comparable to the terms generally available to an unrelated party under similar circumstances.

- The Company should have an effective price discovery system in place and exercise due diligence in determining a fair price for RPTs;
- Ensures that appropriate disclosure is made, and/or information is provided to regulating and supervising authorities relating to the Company's RPT exposures, and policies on conflicts of interest or potential conflicts of interest. The disclosure should include information on the approach to

managing material conflicts of interest that are inconsistent with such policies, and conflicts that could arise as a result of the Company's affiliation or transactions with other related parties;
- Reports to the Board of Directors on a regular basis, the status and aggregate exposures to each related party, as well as the total amount of exposures to all related parties;
- Ensures that transactions with related parties, including write-off of exposures are subject to a periodic independent review or audit process;
- Oversees the implementation of the system for identifying, monitoring, measuring, controlling, and reporting RPTs, including a periodic review of RPT policies and procedures;
- Adopts, implements and continuously monitors policies and procedures that will ensure the integrity and transparency of related party transactions between and among the Company and its parent company, joint ventures, subsidiaries, affiliates, major stockholders, officers and directors, including their spouses, children and dependent siblings and parents, and of interlocking director relationships by members of the Board as well as other unusual or complex transactions;
- Additional duties and responsibilities of the RPT Committee shall be set forth in its Charter;
- On October 28, 2019, the Related Party Transactions Committee approved the amendments to the Company's Policy on Related Party Transactions in order to comply with the provisions of the Rules on Material Party Transactions for Publicly Listed Companies of the Securities and Exchange Commission. The amendments to the Company's Policy were ratified by the Board of Directors during its Regular Meeting on November 26, 2019;
- The Related Party Transactions Committee met three (3) times in 2019.

Nominations Committee

- Is tasked with the duty of implementing a formal and transparent board nomination and election policy that should include how it accepts nominations from the shareholders, including minority and non-controlling, and how it reviews the qualifications of nominated candidates;
- Composed of three (3) independent directors, and is chaired by an independent director;
- Establish and maintain a process to ensure that all candidates/nominees to be nominated for election as directors at the Annual Stockholders' Meeting are qualified in accordance with the By-laws, Manual of Corporate Governance and relevant laws, rules and regulations;
- Encourage the selection of a mix of competent directors, each of whom can add value and contribute independent judgment to the formulation of sound corporate strategies and policies;
- Review and evaluate the qualifications of persons nominated to positions in the Company which require appointment by the Board, and provide guidance and advice as necessary for the appointments of persons nominated to other positions;
- Review and revise if necessary, the succession plans for members of the Board and officers from Group Directors to the President/CEO;
- Provide assessment on the Board's effectiveness in directing the process of renewing and replacing Board members and in appointing officers or advisors and develop, update as necessary and recommend to the Board policies for considering nominees for directors, officers or advisors;
- Discharge any other duties and responsibilities delegated to the Committee by the Board from time to time;
- Be guided by the Company's mission and vision in the fulfillment of its functions;
- The Nominations Committee met seven (7) times in 2019.

Talent and Remuneration Committee

- Is composed of four (4) members, three (3) of whom are independent directors. Under its Charter, the Committee must be chaired by an independent director.
- Develops and improves the policy on remuneration of directors and officers to ensure that their compensation is consistent with the Company's culture, strategy and the business environment in which it operates;
- Determines and approves all matters relating to the remuneration and benefits of the Board, the Management and the employees of the Company;
- Evaluates and recommends for Board approval the pertinent guidelines on executive and employee compensation, including non-monetary remuneration;
- Periodically reviews and evaluates the policy on remuneration in order that it be in a sufficient level to attract and retain directors and key officers of the Company;
- Ensures that any director shall not decide his own remuneration during his incumbent term;
- Provide in the Company's Required Reportorial Requirements, a clear, concise and understandable disclosure of all compensation that may be paid to its directors and key officers during the preceding fiscal year;
- Reviews and provide guidelines on the existing employee policies to strengthen provisions on conflict of interest, compensation and benefit policies, promotion and career advancement and compliance with all regulatory policies;

- Develops and improves policies related to succession, promotion and hiring of senior managers, directors and officers of the Company to ensure that these are aligned to the strategy and business directions of the Company;
- Reviews and approves all matters relating to talent management programs and implementation thereof to ensure that talent risks are addressed and mitigated as planned;
- On November 14, 2019, the Talent and Remuneration Committee approved the addition of the following in its scope of powers, duties and responsibilities:

    a. Total rewards, merit increases, salary, and retirement and benefits plan
    b. Senior management and executive promotions
    c. Overall succession landscape
    d. Tracking of key talents
    e. Talent management and risk updates

- The amendments were ratified by the Board of Directors during its regular meeting held on November 26, 2019;
- The Talent and Remuneration Committee met five (5) times in 2019.

Board Risk Oversight Committee

- The Board Risk Oversight Committee is composed of four (4) directors, three (3) of whom are independent directors, while one (1) is a non-executive director. The Committee is chaired by an independent director.
- Provides assistance in fulfilling the Board's oversight responsibilities in relation to risk governance in the Company;
- Develops a formal enterprise risk management plan which contains the following elements:

    a. Common language or register of risks
    b. Well-defined risk management goals, objectives and oversight
    c. Uniform processes of assessing risks and developing strategies to manage prioritized risks
    d. Designing and implementing risk management strategies.
    e. Continuing assessments to improve risk strategies, processes and measures;

- Oversees the implementation of the enterprise risk management plan through the Enterprise Risk Management Department where it conducts regular discussions on the Company's prioritized and residual risk exposures based on regular risk management reports and assesses how the concerned units or offices are addressing and managing these risks;
- Evaluates the risk management plan to ensure its continued relevance, comprehensiveness and effectiveness;
- Revisits defined risk management strategies, looks for emerging or changing material exposures, and stays abreast of significant developments that seriously impact the likelihood of harm or loss;
- Advises the Board on its risk appetite levels and risk tolerance limits;
- Reviews at least annually the Company's risk appetite levels and risk tolerance limits based on changes and developments in the business, the regulatory framework, the external economic and business environment, and when major events occur that are considered to have major impacts on the Company;
- Assesses the probability of each identified risk becoming a reality and estimates its possible significant financial impact and likelihood of occurrence. Priority areas of concern are those risks that are the most likely to occur and to impact the performance and stability of the Company and its stakeholders;
- Provides oversight over Management's activities in managing credit, market, liquidity, operational, legal and other risk exposures of the Company. This function includes regularly receiving information on risk exposures and risk management activities from Management; and
- Reports to the Board on a regular basis, or as deemed necessary, the Company's material risk exposures, the actions taken to reduce the risks, and recommends further action or plans, as necessary;
- Promotes an open discussion regarding risks faced by the Company, as well as risks faced by its subsidiaries that may have potential impact on the Company's operations, and ensure that risk awareness culture is pervasive throughout the organization.
- Ensure that an overall set of risk management policies and procedures exist for the Company;
- Review the Company's risk governance structure and the adequacy of the Company's risk management framework/process;

- Review and endorse to the Board changes or amendments to the Enterprise Risk Management (ERM) Policy;
- Perform oversight functions specifically in the areas of managing strategic, financial, compliance, operational and other risks of the Company, and crisis management;
- In coordination with the Audit Committee, ensure that the Company's internal audit work plan is aligned with risk management activities and that the internal control system considers all risks identified in the risk assessment process;
- Perform other activities related to this Charter as requested by the Board;
- The Board Risk Oversight Committee met two (2) times in 2019.

Committee of Inspector of Proxies and Ballots

- Composed of the Chief Audit Executive who serves as the Chairman, the Chief Legal Counsel or Head of the Legal & Corporate Governance Department, and a representative of the external auditor of the Company as members;
- Validates the proxies submitted by stockholders and prepares a summary of the valid and invalidated proxies to be submitted to the Office of the Corporate Secretary, together with the proxies;
- Serves as the default inspector of ballots and tabulator of votes during the annual stockholders meeting and for this purpose works closely with the Office of the Corporate Secretary;
- Performs other duties and functions as may be delegated by the Board from time to time
- The Committee met once in 2019.

Corporate Orientation and Corporate Governance Trainings for Directors

The members of the Board are required to regularly attend seminars and conferences to continuously update themselves on the developments in policy, regulations and standards on good corporate governance. These seminars may have themes on key environmental issues, risk management and sustainability. Under the Company's Manual, the members of the Board are also provided with such resources, trainings and continuing education to enable each member to actively, independently and judiciously participate in Board and Committee meetings.

Newly elected members of the Board undergo orientation programs for them to have a working knowledge of the statutory and regulatory requirements affecting the Company. They are also required to keep abreast with industry developments and business trends in order that they may promote the Company's competitiveness and sustainability. Attendance in a corporate governance seminar conducted by a duly recognized private or governmental institution is also a mandatory requirement prior to their assumption of office and during their term of office.

The Company also provides general access to training courses to its directors as a matter of continuous professional education as well as to enhance their skills as directors, and keep them updated in their knowledge and understanding of the Company's business. The Board and Board Committees are also allowed to hire independent legal counsel, accountants or other consultants to advise them when necessary.

At every board meeting, directors are provided with a management update on the operational and financial status of, and other relevant matters, about the Company to ensure that the directors are continuously informed of new developments and the performance of the Company.

Upon assumption of office, a director appointed for the first time undergoes a corporate orientation program conducted by the Office of the Corporate Secretary. The corporate orientation program includes modules on the operations of the Company, as well as relevant contracts of the Company. The orientation also covers existing policies, rules and regulations of the Company. The curriculum of the orientation program may be revised as often as necessary to include other relevant subjects and matters relating to the Company. In addition to the corporate orientation program for new directors, the Office of the Corporate Secretary informs the Board of any updates on the matters covered by the orientation program. The corporate orientation program and updates are usually given during the regular meetings of the Board.

These programs notwithstanding, Manila Water encourages its directors to attend external trainings, courses or continuing professional education programs on corporate governance. The Directors are required to inform the Office of the Corporate Secretary of the trainings or courses attended for record and disclosure purposes.

Corporate Governance Programs Attended by the Board of Directors in 2019

Director	Program	Training Provider	Date of Training
Fernando Zobel de Ayala	Ayala Group Integrated Corporate Governance, Risk Management, and Sustainability Summit	Institute of Corporate Directors	August 9, 2019
Jaime Augusto Zobel de Ayala	Ayala Group Integrated Corporate Governance, Risk Management, and Sustainability Summit	Institute of Corporate Directors	August 9, 2019
Jose Rene Gregory D. Almendras	Ayala Group Integrated Corporate Governance, Risk Management, and Sustainability Summit	Institute of Corporate Directors	August 9, 2019
Gerardo C. Ablaza, Jr.	Ayala Group Integrated Corporate Governance, Risk Management, and Sustainability Summit	Institute of Corporate Directors	August 9, 2019
Antonino T. Aquino	Ayala Group Integrated Corporate Governance, Risk Management, and Sustainability Summit	Institute of Corporate Directors	August 9, 2019
Delfin L. Lazaro	Ayala Group Integrated Corporate Governance, Risk Management, and Sustainability Summit	Institute of Corporate Directors	August 9, 2019
Jaime C. Laya	Ayala Group Integrated Corporate Governance, Risk Management, and Sustainability Summit	Institute of Corporate Directors	August 9, 2019
Jose L. Cuisia, Jr.	Ayala Group Integrated Corporate Governance, Risk Management, and Sustainability Summit	Institute of Corporate Directors	August 9, 2019
Sherisa P. Nuesa	6th SEC-PSE Corporate Governance Forum	Securities and Exchange Commission	October 25, 2019
Oscar S. Reyes	Corporate Governance Enhancement Session on 5G Technology Strategy and Governance: Market Trends and New Business Applications, Risks and Challenges; and Cyber Security: Protecting Critical Business Infrastructure	PXP Energy Corporation	September 26, 2019

BOARD MEETINGS

Under the Charter of the Board, the Board institutionalized a policy of holding at least six (6) meetings in a year. These include the organizational meeting of the Board which is held immediately after the Annual Stockholders' Meeting. Under the By-laws, special meetings may be called by the Chairman, Vice Chairman, President or at the instance of a majority of the members of the Board.

The directors should attend and actively participate in all meetings of the Board, Committees, and Shareholders in person or through tele-/videoconferencing conducted in accordance with the rules and regulations of the SEC, except when justifiable causes, such as, illness, death in the immediate family and serious accidents, prevent them from doing so. In Board and Board Committee meetings, the director should review meeting materials and if called for, ask the necessary questions or seek clarifications and explanations.

To promote transparency, the presence of at least one (1) independent director in all meetings of the Board is required. However, the absence of an independent director shall not affect the quorum requirements if he is duly notified of the meeting but notwithstanding such notice fails to attend.

At least two-thirds (2/3) of the members of Board (as fixed in the Articles of Incorporation) shall constitute a quorum for the transaction of corporate business, and every decision of at least a majority of the directors present at a meeting at which there is a quorum shall be valid as a corporate act, except when a higher quorum is required in contracts binding on the Company.

In the absence of a quorum, a majority of the directors present may adjourn any meeting from time to time until a quorum is obtained.

The non-executive directors (NEDs) should have separate periodic meetings with the external auditor and heads of the internal audit, compliance and risk functions, without any executive directors present to ensure that proper checks and balances are in place within the Company. These meetings shall be chaired by the Lead Independent Director.

A director's absence or non-participation in more than fifty percent (50%) of all meetings, both regular and special, of the Board during his incumbency, or any twelve (12) month period during said incumbency unless such absence was due to illness, death in the immediate family or serious accident is a ground for temporary disqualification in the succeeding election.

Board Attendance in Meetings

Name	Board Meetings Attended*	Total 2019 Remuneration#
Fernando Zobel de Ayala**	9/9	₱3,200,000.00
Jaime Augusto Zobel de Ayala**	9/9	₱2,700,000.00
Ferdinand M. dela Cruz**	5/5***	₱2,325,000.00
Jose Rene Gregory D. Almendras**	5/5*****	₱1,275,000.00
Antonino T. Aquino	9/9	₱3,300,000.00
Gerardo C. Ablaza, Jr.	9/9	₱3,600,000.00
Delfin L. Lazaro**	9/9	₱2,700,000.00
John Eric T. Francia**	3/3****	₱1,700,000.00
Oscar S. Reyes	9/9	₱3,650,000.00
Jaime C. Laya	9/9	₱3,750,000.00
Sherisa P. Nuesa	8/9##	₱3,150,000.00
Jose L. Cuisia, Jr.	9/9	₱4,000,000.00
TOTAL		**₱35,350,000.00**

\# Computation of Remuneration include retainer fees, compensation for attendance in board and board committee meetings, and Annual Stockholders' Meetings Fees
Sick leave on August 8, 2019.
* Exclusive of the Annual Stockholders' Meeting held on April 17, 2019, and inclusive of the Meeting of the Non-Executive Directors held on November 26, 2019.
** Remuneration of Messrs. Fernando Zobel de Ayala, Jaime Augusto Zobel de Ayala, Ferdinand M. dela Cruz, Jose Rene Gregory D. Almendras, Delfin l. Lazaro, and John Eric T. Francia were paid directly to Ayala Corporation.
*** Mr. dela Cruz was a Director until August 31, 2019.
**** Mr. John Eric T. Francia was a Director until May 14, 2019.
***** Mr. Almendras was elected as a Director on May 14, 2019. He is not required to attend the meeting of the Non-Executive Directors as he is an Executive Director.

In 2019, a total of nine (9) meetings were held by the Board (exclusive of the Annual Stockholders' Meeting), as follows:

1. Regular Board Meeting held on February 26, 2019
2. Special Board Meeting held on March 15, 2019
3. Organizational Board Meeting held on April 22, 2019
4. Regular Board Meeting held on May 14, 2019
5. Regular Board Meeting held on August 8, 2019
6. Regular Board Meeting held on September 27, 2019
7. Regular Board Meeting held on November 26, 2019
8. Non-Executive Directors' Meeting held on November 26, 2019
9. Special Board Meeting held on December 10, 2019

Mr. Jose Rene Gregory D. Almendras, who became an Executive Director upon his appointment as President and Chief Executive Officer on August 8, 2019, was not a party to the meeting of the Non-Executive Directors held on November 26, 2019. Mr. Almendras was elected as Chairman of the Executive Committee following his appointment as Director on May 14, 2019. Effective September 1, 2019, Mr. Fernando Zobel de Ayala was elected as Chairman of the Executive Committee following the resignation of Mr. Almendras as its Chairman.

2019 Board of Directors' Attendance in Committee Meetings

Executive Committee	Meetings Attended/Held
Fernando Zobel de Ayala*	5/6
Ferdinand M. dela Cruz**	10/11
Gerardo C. Ablaza, Jr.	12/12
Antonino T. Aquino	12/12
John Eric T. Francia***	5/5
Jose Rene Gregory D. Almendras****	6/6
Sherisa P. Nuesa#	2/2

* Mr. Zobel de Ayala served as member and Chairman of the Executive Committee from January 01, 2019 to May 14, 2019, and from September 01, 2019 to December 31, 2019.
** Mr. dela Cruz served as a member of the Executive Committee until August 31,2019.
*** Mr. Francia served as a member of the Executive Committee until May 13, 2019.
**** Mr. Almendras served as the Chairman of the Executive Committee from May 14, 2019 until August 31, 2019. He was a member of the Committee from September 01, 2019 until December 31, 2019.
\# Ms. Nuesa became a member of the Executive Committee from August 08, 2019 until December 31, 2019.

Board Risk Oversight Committee	Meetings Attended/Held
Jaime C. Laya (Chairman)	2/2
Oscar S. Reyes	2/2
Jose L. Cuisia, Jr.	2/2
Gerardo C. Ablaza, Jr.	2/2

Corporate Governance Committee	Meetings Attended/Held
Sherisa P. Nuesa (Chairman)	4/4
Jose L. Cuisia, Jr.	4/4
Jaime C. Laya	4/4

Nomination Committee	Meetings Attended/Held
Jose L. Cuisia, Jr. (Chairman)	7/7
Oscar S. Reyes	7/7
Jaime C. Laya	7/7

Audit Committee	Meetings Attended/Held
Oscar S. Reyes (Chairman)	5/5
Jose L. Cuisia, Jr.	5/5
Jaime C. Laya	5/5
Gerardo C. Ablaza, Jr.	5/5

Talent and Remuneration Committee	Meetings Attended/Held
Jose L. Cuisia, Jr. (Chairman)	5/5
Sherisa P. Nuesa	5/5
Oscar S. Reyes	5/5
Fernando Zobel de Ayala	5/5

Related Party Transactions Committee	Meetings Attended/Held
Sherisa P. Nuesa (Chairman)	3/3
Jose L. Cuisia, Jr.	3/3
Jaime C. Laya	3/3

Committee of Inspectors of Ballots and Proxies	Meetings Attended/Held
Christian R. Catacutan	1/1
Darwin L. Mendoza	1/1
Representative from the External Auditor	1/1

VISION, MISSION AND CORPORATE OBJECTIVES

To ensure good governance of the Company, the Board is mandated under the Manual to formulate strategic objectives, key policies and procedures for the management of the Company. Furthermore, the Board has established the mechanism for monitoring and evaluating the performance of the Management, especially that of the President and CEO. Under its Charter, the Board is enjoined to periodically review the vision, mission, corporate strategic objectives and key policies of the Company to sustain the Company's market competitiveness and enhance shareholder value. Accordingly, in its regular meeting held on November 20, 2018, the Board has confirmed the following mission and vision of the Company, as representative of its strategic and corporate objectives:

VISION

Our vision is to become a leader in the provision of water, used water and environmental services which will empower people, protect the environment and enhance sustainable development.

MISSION

Our mission is to create an exceptional customer experience in the provision of sustainable solutions vital to health and life.

ANNUAL BOARD EVALUATION

The Board should conduct an annual self-assessment of its performance, including the performance of the Chairman, individual members and committees. Every three (3) years, the assessment should be supported by an external facilitator.

The Board's annual performance evaluation covers the following:

a. Board and Committee Processes and Meetings
b. Compliance with the responsibilities and functions of the Board and Committees
c. Board-Management Relationship
d. Board Member Self Evaluation
e. Performance of the CEO/President and the Senior Management

In addition to the annual Board evaluation process, the Audit Committee adopted SEC Memorandum Circular No. 4 Series of 2012 on the Guidelines for the Assessment of the Performance of Audit Committees of Companies Listed on the Philippine Stock Exchange which took effect on June 30, 2012. Pursuant to this, an annual evaluation is also being conducted to assess the performance of the Audit Committee. These annual evaluation processes are facilitated by the Office of the Corporate Secretary in coordination with the Corporate Governance Committee.

OFFICE OF THE CORPORATE SECRETARY

The Corporate Secretary ensures that the Board and Management follow internal and external rules and regulations and facilitates clear communications between the Board and management. He also informs Management of latest corporate governance developments.

The Corporate Secretary is primarily responsible to the Company and its shareholders, and not to the Chairman or President of the Company and has, among others, the following duties and responsibilities:

a. The Corporate Secretary shall exercise such express and implied powers in the By Laws, in the Manual, in the Charters and those that may be authorized under existing laws, rules and regulations.
b. The Corporate Secretary shall ensure that the Board and management follow internal and external rules and regulations and facilitate clear communications between the Board and management.
c. The Office of the Corporate Secretary, in coordination with the Compliance Officer, shall be the forerunner of the Board in championing corporate governance practices and policies.

MANAGEMENT

The Management is primarily responsible for the operations of the Company. As part of its accountability, the Management is required to provide the Board with adequate, regular and timely information on the operations and affairs of the Company.

The roles of the Chairman, and the President and CEO were made separate to ensure an appropriate balance of authority, increased accountability and greater capacity of the Board for independent decision-making.

The Manual requires the Company to disclose the relationship between the Chairman, and the President and CEO, if any, in its annual report to the SEC. The Chairman of the Board, Fernando Zobel de Ayala, and the President and CEO of the Company, Jose Rene Gregory D. Almendras, are not related to each other.

SUCCESSION PLANNING

The Board, with the assistance of the Talent and Remuneration Committee, the Nomination Committee and the Company's Corporate Human Resources Group, has adopted a professional development program for employees, officers and senior management. Through competency management, the Company has put in place a process to determine the skills necessary for particular positions in the Company, and identifies key talents for purposes of succession. The Company's Corporate Human Resources Group has developed a Talent Master Plan to determine optimal organizational structuring, recruitment strategies, performance evaluation methodologies, total rewards management and career development. These are all geared to attract, retain and engage the Company's employees, officers and senior management, and to cultivate them to become the Company's future business leaders.

The development of a leadership talent pool is crucial to the success of Manila Water in the future. Hence, it is one of the top strategic priorities of the Company. For the succession of the top key management positions, the Company has formed an Acceleration Pool composed of selected high potential key talents within the organization.

Talents identified to be part of the Acceleration Pool undergo the following:

1. Assessment that gauges a talent's business driver readiness and leadership competencies;
2. Creation of an Individual Development Plan that outlines possible developmental areas and stretched assignments; and
3. Coaching and mentoring sessions with the Management Committee.

The Management Committee is composed of the top key executives of the Company from the President/CEO to those occupying positions equivalent to Vice Presidents.

THE COMPLIANCE OFFICER

The Compliance Officer is a member of the Company's management team in charge of the compliance function. Similar to the Corporate Secretary, he/she is primarily liable to the Company and its shareholders, and not to the Chairman or President of the Company.

The Compliance Officer has, among others, the following duties and responsibilities:

a. Ensures proper on-boarding of new directors (i.e., orientation on the Company's business, charter, articles of incorporation and by-laws, among others);
b. Monitors, reviews, evaluates and ensures the compliance by the Company, its officers and directors with the relevant laws, this Manual, rules and regulations and all governance issuances of regulatory agencies;
c. Reports the matter to the Board if violations are found and recommends the imposition of appropriate disciplinary action;
d. Ensures the integrity and accuracy of all documentary submissions to regulators;
e. Appears before the SEC when summoned in relation to compliance with the Revised Corporate Governance Manual;
f. Collaborates with other departments to properly address compliance issues, which may be subject to investigation;
g. Identifies possible areas of compliance issues and works towards the resolution of the same;
h. Ensures the attendance of board members and key officers to relevant trainings; and
i. Oversees the implementation of the Company's Code of Business Conduct and Ethics and the Related Party Transactions Policy;
j. Performs such other duties and responsibilities as may be provided by the SEC.

2019 Annual Stockholders' Meeting, Makati City

THE CORPORATE GOVERNANCE OFFICE

The Legal and Corporate Governance Department (the "Department") is the unit tasked to formulate and implement the initiatives and policies on good corporate governance. The Department, on matters of corporate governance, reports directly to the Compliance Officer under the supervision of the Corporate Governance Committee. The Department has been active in the continuous conduct of orientation to all Manila Water employees and business partners on the Company's governance policies, particularly on matters contained in the Manual and the Code of Business Conduct and Ethics, such as transparency, whistle blower policy, honesty and fair dealing, and prompt and adequate disclosure of material information, among other policies.

Among the mandates of the Department is the continuous identification of gaps and challenges on corporate governance practices across the organization. This allows the Department to propose improvements on the Company's policies based on international corporate governance standards. Finally, the Department, in coordination with the Office of the Corporate Secretary, also provides timely updates to the Board and the Management on the current and best practices on corporate governance in the industry and globally.

THE INTERNAL AUDIT

The Internal Audit (IA) team conducts an independent, objective assurance, and consulting activity designed to add value and improve the organization's operations.

The internal audit activity will govern itself by adherence to the Institute of Internal Auditor's mandatory guidance including the Definition of Internal Auditing, the Code of Ethics, and the International Standards for the Professional Practice of Internal Auditing (Standards). This mandatory guidance constitutes principles of the fundamental requirements for the professional practice of internal auditing and for evaluating the effectiveness of the internal audit activity's performance.

The Internal Audit;

- Reviews the effectiveness by which risks that may threaten the achievement of organizational and financial reporting objectives are identified and managed;
- Reviews the reliability and integrity of the financial reporting process and operating information and the business process used to identify, measure, classify and report such information;
- Reviews the adequacy of the system of internal controls, planned and in use, to safeguard the Company's assets and operations;

- Reviews the effectiveness of management controls meant to ensure the economic and efficient utilization of resources and achieve the Company's corporate vision and objectives;
- Review the adequacy, existence and degree of adherence to Company policies, procedures and sound business practices;
- Reports the result of audit reviews and other activities in a manner that helps management address the identified risk issues/concerns and take appropriate action within a reasonable period of time;
- Appraises the adequacy of action taken by management in response to reported risk issues, control weaknesses and opportunities for improvement;
- Provides assistance to the Audit Committee in the discharge of their oversight function with regard to corporate governance. Such activities include establishing the communication process to discuss with the Committee issues and controls affecting the financial reporting and risk management process, compliance with laws and regulations and internal controls;
- Coordinates with the Compliance Officer in ensuring that the provisions of the Company's Corporate Governance Manual are appropriately and adequately complied with;
- Updates the Committee and Senior Management on developments and emerging trends and issues in corporate governance (local and international), especially in areas directly affecting their roles and responsibilities;
- Deliver the specific requirements from the IAA, as specified in the Company's Corporate Governance Manual, as follows:

  a. Provide reasonable assurance that the Company's key organizational and procedural controls are complied with and that the Internal Audit cover the evaluation of the adequacy and effectiveness of controls.
  b. Submit an Annual Internal Audit Plan for review and approval of the Committee.
  c. Seek the approval from the Committee relative to any deviations from the approved Annual Internal Audit Plan.
  d. Submit periodic reports to the Committee on the status of the IAA, accomplishments, key findings and recommendations.
  e. Render an Internal Audit Annual Report to the Committee on the IAA's activity, purpose, authority, responsibility and performance; such annual report should contain the results of the review of the risk management process and significant exposures, as well as a report on governance issues.
  f. Assess whether the information technology governance of the organization sustains and supports the organization's strategies and objectives. (new standard-ISPPIA 2110.A2)
  g. Render a report to the Committee that the Company's IAA for the given year has been performed in accordance with the Provisions of the International Standards on the Professional Practice of Internal Auditing (ISPPIA). IAA may report that their engagements are "conducted in conformance with the International Standards for the Professional Practice of Internal Auditing", only if the results of the quality assurance and improvement program support the statement. (new standard-ISPPIA 2430).
  h. Monitor compliance with the Company's Risk Management Policy and structure as approved by the Board of Directors and provide reasonable assurance on compliance with such policy and structure.
  i. Participate in risk assessment workshops and other activities of the Risk Management Unit.
  j. Contribute and/or provide quality assurance in the creation and updating of the Company's risk portfolio and common risk language.
  k. Provide quality assurance on risk mitigation strategies designed by the risk owners.
  l. As part of the planned audit reviews, provide assurance on the integrity of critical risk information and measures.
  m. Evaluate the potential for the occurrence of fraud and how the organization manages fraud risk. (new standard-ISPPIA 2120.A2)
  n. Assist management in establishing or improving risk management process (but must refrain from assuming management responsibility by actually managing risks. (new standard-ISPPIA 2120.C3)
  o. The IAA will conduct such other activities as may be requested by the Committee, the President and other members of senior management, with certain requests of the latter subject to further clearance from the Committee depending on the materiality of such requests.

Quarterly Analysts' Briefing, Makati City

THE CHIEF RISK OFFICER

In managing the Company's Risk Management System, the Company shall have a Chief Risk Officer (CRO) who is the ultimate champion of Enterprise Risk Management (ERM). The CRO shall have adequate authority, stature, resources and support to fulfill his/her responsibilities, in accordance with the Company's size, risk profile and complexity of operations.

The CRO shall provide support to the Board Risk Oversight Committee. For this purpose, there shall be a clear communication line between the Board Risk Oversight Committee and the CRO.

The CRO supervises the entire ERM process and spearheads the development, implementation, maintenance and continuous improvement of ERM processes and documentation; communicates the top risks and the status of implementation of risk management strategies and action plans to the Board Risk Oversight Committee; collaborates with the CEO in updating and making recommendations to the Board Risk Oversight Committee; suggests ERM policies and related guidance, as may be needed; and provides insights if risk management processes are performing as intended; reported risk measures are continuously reviewed by risk owners for effectiveness; and if established risk policies and procedures are being complied with.

THE CHIEF SUSTAINABILITY OFFICER

The Chief Sustainability Officer (CSO) ensures that environmental, social and governance issues and challenges of the Company are discussed at the Board and are well communicated to all stakeholders.

On April 24, 2019, the Metropolitan Waterworks and Sewerage System (MWSS) imposed a penalty of ₱534.05 million on the Company as outlined in Section 10.4 of the Concession Agreement. The Company was also requested to set aside funds amounting to ₱600 million for the development of a medium-to-long water source for the East Zone.

On September 18, 2019, the Company received a copy of the decision from the Supreme Court upholding the complaint of the Pollution Adjudication Board (PAB) that the Company, Maynilad Water Services, Inc. (Maynilad), and the Metropolitan Waterworks and Sewerage System (MWSS) (the "Petitioners to the complaint") violated Section 8 of Republic Act No. 9275 or the Philippine Clean Water Act of 2004. In the ruling of the Supreme Court, the Company was adjudged jointly and severally liable with the MWSS for the total amount of ₱921.5 Million. A similar ruling was adjudged on Maynilad. In addition, from finality of said Decision until payment of said amount, the Petitioners to the complaint shall be fined ₱322,102 a day, subject to a further ten percent (10%) increase every two (2) years until full compliance with Section 8 of the Philippine Clean Water Act. The Petitioners to the complaint have filed their respective Motion for Reconsideration with the Supreme Court. Said motion is currently pending resolution.

The CSO also leads new initiatives and cross-functional teams and understands how to translate external factors into internal opportunities. It also ensures that business growth and strategies take into account the environmental and social impacts.

On September 27, 2019, during its Regular meeting, the Board of Directors approved the appointment of Mr. Mark Tom Q. Mulingbayan as the Company's Chief Sustainability Officer following the endorsement of the Nomination Committee.

THE CORPORATE GOVERNANCE MANUAL

The Manual aims to improve, systematize, and make the Company's governance transparent, and demonstrate the Company's commitment to good governance, by developing and furthering:

- Responsible, accountable, and value-based performance management;
- Effective Board oversight, with Board Committees that act in the best interests of the Company and its stakeholders, including minority shareholders, and seek to enhance shareholder value in a sustainable manner; and
- Adequate information disclosure and transparency, as well as effective system of compliance, risk management and internal control.

The Manual principally contains the corporate governance structure of the Company, recognizes and safeguards the rights of every shareholder, and promotes shareholders' rights, particularly the rights to information and to participate in the governance process. It supplements and complements the Articles of Incorporation and By-Laws of the Company.

Pursuant to the SEC Memorandum Circular No. 19, Series of 2016 on the Code of Corporate Governance for Publicly Listed Companies, the Company adopted a new Manual of Corporate Governance and submitted the same.

The Compliance Officer is primarily tasked to operationalize the Manual by putting in place the appropriate policies in coordination with the Corporate Secretary and the relevant Board Committees and to monitor compliance with the provisions and requirements of the Manual and the Company policies on corporate governance, as well as the rules and regulations of the regulatory agencies.

As a key policy, the members of the Board and key executives of the Company are required to disclose to the Board any material interest, whether direct or indirect, that they may have in any transaction or matter that directly affects the Company.
The Company commits, at all times, to adequately and timely disclose all material information that could potentially affect Manila Water's share price and such other information that are required to be disclosed pursuant to the Securities Regulations Code (SRC) and its Implementing Rules and Regulations (IRR) and other relevant laws. This information includes, but is not limited to, results of earnings, acquisition or disposal of significant assets, off-balance sheet transactions, changes in Board membership, as well as, changes in shareholdings of majority shareholders, directors and officers, and related party transactions.

The Company also discloses its corporate governance practices, corporate events, calendar and other material information on its website in a timely manner.

The directors are required to comply with all disclosure requirements of the Manual and the SRC and its IRR, and to voluntarily disclose any conflict of interest, whether actual or potential, upon its occurrence.
The disclosure of any conflict of interest, including related party transactions, is required to be made fully and immediately.
In cases where related party transactions exist, it is the Company's policy that complete information on such transaction be immediately disclosed, and, if a director or officer is involved, the director or officer concerned shall not be allowed to participate in the decision-making process.
The policy also mandates that a director who has a continuing conflict of interest of a material nature shall be required to resign, or if the Board deems appropriate, be removed as a member of the Board.

The Company's Manual is continuously being revised in accordance with the directives and issuances of the SEC and to comply with the highest standards of corporate governance. The latest revisions to the Manual was approved and ratified by the Board on November 26, 2019.

RELATED PARTY TRANSACTIONS

As a general rule, the Company shall avoid Related Party Transactions (RPT). In instances where RPTs cannot be avoided, the Company shall disclose all relevant information on the same, including information on the related or affiliated parties and the affiliation of directors and principal officers.

The Company and its subsidiaries shall enter into any related-party transactions solely in the ordinary course of business, on ordinary commercial terms and on the basis of arm's length arrangements, and subject to appropriate corporate approvals and actions of the Company or the Related Parties, as the case may be.
Any related-party transactions entered into by the Company or its Affiliates shall be in accordance with applicable law, rules and regulations and this Policy.

Disclosure Requirements:

- The Company must comply with all disclosure requirements of RPT mandated under the Manual, and the applicable laws, rules and regulations.
- The Related Parties must comply with all the disclosure requirements of RPTs required under applicable law, rules and regulations of the SEC, PSE and the BIR, and other relevant government agencies.
- Each director, executive officer and members of the Key Management is responsible for providing written notice to the Office of the Compliance Officer of any potential RPT involving him or her or his or her Immediate Family Member, including any additional information about the transaction that may reasonably be requested by the Company.
- The Office of the Compliance Officer, by himself, or in consultation with the Management Committee and with the Chief Legal Counsel or external counsel, as appropriate, will determine whether the notified transaction does, in fact, constitute an RPT requiring compliance with this Policy.
- Disclosure of an RPT shall include information about the price of the transaction, outstanding balances, if any, major terms and conditions and guarantees, if any. The Office of the Compliance Officer may require additional and other relevant information sufficient to enable the Office of the Compliance Officer to determine any Conflict of Interest and the potential effect of the relationship.
- In addition, each director, executive officer and member of the Key Management may be required to complete a questionnaire that inquires about their RPTs and those of their Immediate Family Members.

Guidelines Prior to entering into an RPT:

- All RPTs shall have terms and conditions that are fair and equitable to the Company.
- The approval, award, processing and payment of RPTs shall follow the same procedures as the other transactions and contracts of the Company. No unusual privilege or special treatment shall be afforded a Related Party.
- In case of doubt on the nature of a transaction subject of investigation or review pursuant to this Policy, the Office of the Compliance Officer, in consultation with the Committee, shall determine whether the transaction or relationship constitutes a RPT, and whether the same shall be pursued taking into consideration the cost and benefit to the Company.
- Prior to the award of any Material RPT, the Company shall submit the same for the review of the Committee to confirm that it has undergone the same process as an ordinary transaction and to determine that the Material RPT under review is in the best interest of the Company. A Material RPT is any RPT with a total contract value of at least Fifty Million Pesos (₱50,000,000.00).
- When a Material RPT is submitted to the Committee for review, the presence of at least two (2) independent directors shall be necessary to constitute a quorum of the Committee.
- Non-Material RPTs shall be subject to the review and/or approval of the Compliance Officer.
- The following RPTs shall not be allowed:
  a) loans and/or financial assistance to a Director;
  b) Loans and/or financial assistance to the Key Management, except when allowed pursuant to an established company benefit or plan.

CODE OF BUSINESS CONDUCT AND ETHICS

The Code of Business Conduct and Ethics provides the standards for professional and ethical behavior, as well as articulate acceptable and unacceptable conduct and practices in internal and external dealings. The Code should be properly disseminated to the Board, senior management and employees. It should also be disclosed and made available to the public through the Company website. The Board should ensure the proper and efficient implementation and monitoring of compliance with the Code of Business Conduct and Ethics and internal policies.

This Code of Business Conduct and Ethics shall be the guiding principle and shall apply to all directors, officers and employees when transacting business on behalf of the Company.

The directors, officers and employees shall be accountable to the Company, discharge their duties with utmost honesty, integrity and competence, and at all times, follow the highest standards of business conduct and ethics.

The Code addresses the issues and relationships between and among the Company's directors, officers and employees, and its customers, suppliers, business partners, government offices and other stakeholders. The code covers the Company's policies on Honesty and Fair Dealing, Conflict of Interest, Corporate Entertainment/Gifts, Insider Trading, Disclosure, Creditor Rights, Anti-Corruption, and Anti-Sexual Harassment.

Honesty and Fair Dealing to Diversity in Board Membership

- The core principle of the Company is to conduct business honestly and fairly with its investors, suppliers, contractors, service providers, customers and employees and other third parties.
- Directors, Officers and employees shall act honestly, ethically and in comply with all applicable laws, rules and regulations and protect the name and reputation of the Company.

- Directors, Officers and employees shall not engage in any unfair dealing practices, such as taking advantage of anyone through abuse of confidential information, manipulation, concealment, or misrepresentation or other similar acts.
- Officers and employees involved in the procurement process for services, materials, supplies, and equipment shall strictly comply with the Company's Procurement Policy. The Procurement Policy is an integral part of this Code.
- Directors, Officers and employees are required to immediately report all suspected or actual fraudulent or dishonest acts to the Board, in case of directors, and to the immediate supervisor or to the Office of the Compliance Officer in case of officers and employees. The Company shall promptly identify and investigate any suspected fraudulent or dishonest acts. Without prejudice to applicable administrative sanctions, the Company may pursue civil and/or criminal actions against directors, officers and employees as may be warranted.

The Implementing Guidelines on the Reporting of Fraudulent or Dishonest Acts are contained in the Whistle Blower Policy of the Company.

THE WHISTLE BLOWING POLICY OR POLICY FOR REPORTING OF FRAUDULENT OR DISHONEST ACTS

The whistle blowing policy provides a framework where employees may freely communicate their concerns about illegal or unethical practices, without fear of retaliation and to have direct access to an independent member of the Board or a unit created to handle whistle blowing concerns.

Directors, Officers and employees are required to immediately report all suspected or actual fraudulent or dishonest acts to the Board, in case of directors, and to the Compliance Officer in case of Officers and employees. The Company shall promptly identify and investigate any suspected fraudulent or dishonest acts. Without prejudice to applicable administrative sanctions, the Company may pursue civil and/or criminal actions against Directors, Officers and employees as may be warranted.

A Whistle Blower Committee is the committee commissioned and empowered under this policy to receive, process, and resolve whistle blower reports and complaints. This committee shall be composed of the Compliance Officer as the Chairman, the Chief Audit Executive, the Chief Legal Counsel, and a senior ranking manager from the Corporate Human Resources Group. The duties and responsibilities of this committee is provided in the policy.

Whistle blowers can initiate reports and complaints through in-person meetings or through any of the following channels: electronic mail; registered or regular mails, website of the Company, telephone call, and facsimile, as may be made available from time to time.

The Whistle blower shall be protected from any form of retaliation or discrimination by the concerned person, his co-employees or superiors. All Whistle blower complaints and reports including the identity of the whistle blower, witnesses and employees named in the Complaint and the report, as well as the activities and investigations undertaken pursuant to this Policy, will be treated in a confidential and sensitive manner, unless the Company is otherwise required or compelled by law or order of competent authority to release the information.

A copy of the Whistle Blower Policy and the Implementing Guidelines on Reporting of Fraudulent or Dishonest Acts is available for download at the Company's website.

CONFLICT OF INTEREST

A conflict of interest arises when a Director, or an Officer or employee appears to have a direct or indirect personal or financial interest in any transaction, which may deter or influence him from acting in the best interest of the Company. It is not required that there be an actual conflict, it is only required that there could be perceived or seen to be a conflict by an impartial observer.

When an actual or apparent conflict of interest arises, a Director must inform the Board, and the Officer or employee must immediately inform his immediate supervisor or the Compliance Officer. Such Director, Officer or employee should not participate in, or in any way seek to influence, any negotiations, or decisions pertaining to the transaction, which is the subject of interest.

The Director, Officer or employee must also file a Conflict of Interest Report with the Board in case of a director or to the immediate supervisor and the Office of the Compliance Officer in case of an officer or employee. The report shall indicate a brief description of the conflict, the date when the Board, or immediate supervisor and the Office of the Compliance Officer were notified, and the action taken on the conflict.

All contracts/arrangements by directors, officers and employees, and their relatives that violates this policy on conflict of interest shall be terminated immediately and correspondingly reported to the Office of the Compliance Officer, for appropriate action under the Code.

CORPORATE ENTERTAINMENT AND GIFTS

Directors, Officers and employees shall strictly follow the principles of highest ethical business standards and comply with all relevant laws and regulations.

Towards this end, Directors, Officers and employees shall not accept corporate entertainment/gifts with an approximate value of more than Three Thousand Pesos (₱3,000.00) or anything that can or can be viewed to influence the manner on which a director, officer or employee may discharge his duties.

Within five (5) business days from receipt of corporate entertainment and gifts, directors, officers and employees are required to submit a report to the Board, in case of directors, or to their immediate supervisor and the Office of the Compliance Officer, in case of officers and employees. The report shall identify the giver, date of receipt, and type and approximate value of the corporate entertainment/gifts received.

INSIDER TRADING

All Directors, Key Officers, employees, consultants, advisers of the Company, and members of the immediate families of directors and key officers who are living in the same household as the directors and key officers (the "Covered Persons" who have direct or indirect knowledge, from time to time, of material facts or changes in the affairs of the Company, which have not been disclosed to the public, including any information likely to affect the market price of the Company's shares, shall:

a. Not trade in the Company's securities directly or indirectly; and
b. Not communicate, directly or indirectly, such material non-public information to any person until the material non-public information is disseminated to the public and two (2) trading days have lapsed from the disclosure thereof to allow the market to absorb such information.

All Covered Persons shall be restricted from trading the Company's securities during the following blackout periods:

a. Five (5) trading days before and two (2) trading days after the disclosure of the quarterly and annual financial results and;
b. Two (2) trading days after the disclosure of any material information other than the above

All Covered Persons are required to report their trades on a quarterly basis to the Office of the Compliance Officer.

a. All Directors and Key Officers shall report their trades to the Office of the Compliance Officer within three (3) business days from dealing with such securities.
b. All other Covered Persons shall likewise report to the Office of the Compliance Officer within ten (10) calendar days from the end of each quarter their trades with the Company's securities during such quarter.
c. All Directors, Officers, and employees are required to report their trades on a quarterly basis to the Office of the Compliance Officer within fifteen (15) calendar days from the end of each quarter.

A copy of the form used to report trading activities is found in Annex C of the Revised Corporate Governance Manual and is available for download at the Company's website.

DISCLOSURE

The Company hereby adopts a policy of prompt and adequate disclosure of all material facts or changes in the affairs of the Company including any information likely to affect the market price of the Company's shares to give a fair and complete picture of the Company's financial condition, results and business operations.

The Company shall ensure transparency of information to its shareholders, stakeholders and the public. It shall regularly and truthfully update its shareholders, stakeholders and the public on its financial and operational results, business prospects and all other relevant information.

The Company shall fully comply with all the disclosure and reporting requirements of the SEC, PSE and all other government and regulatory agencies.

Directors, Officers and employees shall not knowingly misrepresent or cause others to misrepresent information relating to the Company to government and regulatory agencies, independent auditors, the media or any other person.

No Director, Officer or employee shall disclose any confidential information obtained from the Company for personal gain or for the advantage of any other person. This prohibition shall include investment in securities and association with a competitor, customer or supplier of the Company.

CREDITOR RIGHTS

The Company values its partnership with its creditors. The Company shall at all times, strictly comply with its covenants under its agreements with its creditors.

No distribution or disposal of assets of the Company shall be made except:

a. When allowed by the law; or
b. By decrease of capital stock; or
c. Upon lawful dissolution and after payment of all its debts and liabilities;
d. When allowed by the material agreements of the Company, but without prejudice to vested rights.

ANTI-CORRUPTION

The Company strictly prohibits giving or facilitating payments to any private or government officials or employees, their agents or intermediaries in order to expedite or secure performance of any governmental action, or to gain any perceived or actual favor or advantage from any private or government entities. The Company must ensure that it and its directors, officers and employees fully comply with the laws governing bribes, unlawful payments and other corrupt practices.

ANTI-SEXUAL HARASSMENT

The Company values the dignity of every individual, promotes the enhancement of the development of its human resources, guarantees full respect for human rights, and uphold the dignity of its stakeholders, customers, workers, employees, applicants for employment, students or those undergoing training, instruction or education.

The Company shall ensure that its directors, officers and employees subscribe strictly to this policy. All forms of sexual harassment shall be dealt with appropriately and in accordance with the applicable and all relevant laws, rules and regulations on the subject matter.

Sexual Harassment means unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature.

DIVERSITY IN BOARD MEMBERSHIP

Manila Water encourages the selection of a mix of competent directors, each of whom can add value and contribute independent judgment to the formulation of sound corporate strategies and policies. The Company values the inputs and opinions of each director, ensuring that a Director shall not be discriminated upon by reason of gender, age, ethnicity, or political, religious or cultural beliefs.

PROCUREMENT POLICIES

Officers and employees involved in the procurement process for services, materials, supplies, and equipment for Manila Water are required to comply with the Procurement Policies. The objectives of the Procurement Policies are to promote transparency in the procurement process, and to afford vendors equal access to business opportunity with Manila Water, to the end view of enhancing vendor participation and the interest of Manila Water.

THE VENDOR'S CODE OF CONDUCT

The Vendors' Code of Conduct sets out the rules that will guide the Company's vendors in the performance of their obligations and/or in transacting business with the Company, thus avoiding acts contrary to standards, policies, laws and morals. As business partners of the Company, its vendors are expected to act with utmost integrity, efficiency, and competence in performing awarded contracts and/or delivering ordered products. Moreover, they should demonstrate a strong sense of responsibility for public safety and interest that will ultimately promote and protect the good name of the Company. The Vendors' Code of Conduct is deemed incorporated in the contracts of Manila Water with its suppliers, vendors and contractors.

The Vendor's Code of Conduct is found in Appendix 9 of the Revised Corporate Governance Manual and is available for download at the Company's website.

ENTERPRISE RISK MANAGEMENT POLICY

Manila Water has established an Enterprise Risk Management (ERM) Program which aims to use a globally accepted approach in managing imminent and emerging risks in its internal and external operating environments. Under the ERM Program, the Company shall appropriately respond to risks and manage them in order to increase shareholder value and enhance its competitive advantage.

In line with best corporate governance practices and to ensure effective management of strategic, operational, financial and compliance-related risks, the Board of Directors of Manila Water Company, Inc. created the Board Risk Oversight Committee to provide assistance in fulfilling the Board's oversight responsibilities in relation to risk governance in the Company.

SAFETY, HEALTHY AND WELFARE POLICY

Manila Water is committed to achieving customer satisfaction, upholding environmental sustainability, and ensuring safety, preservation of life and health of its employees and all stakeholders.

To achieve these objectives, it is the policy of Manila Water to:

a. Continuously assess, implement and improve its processes and business conduct by adopting best practices and keeping abreast with the latest innovations to ensure reliability and efficiency of its operations;
b. Ensure full compliance with relevant laws and standards in pollution prevention and environmental sustainability, safety and health protection, as well as applicable regulatory standards and customer requirements related to the quality of its products and services;
c. Build a strong culture committed to customer satisfaction, environmental protection, health and safety through education, training and awareness at all levels of the organization that will empower its employees, contractors, suppliers and stakeholders;
d. Actively promote the conservation and optimal use of precious resources by constantly creating and improving existing programs aimed at pollution prevention, waste minimization, resource conservation and environmental sustainability;
e. Systematically manage and control its health and safety risks through effective risk assessment processes; and
f. Regularly revisit, improve, develop and maintain its Quality, Environment, Health and Safety management system to ensure its effectiveness and relevance to the changing needs of the company to drive continuous improvement in operations, quality, environmental, health and safety performances and services.

STOCKHOLDERS' RIGHTS

It is the duty of the Board to promote stockholder rights, remove impediments to the exercise of stockholder rights and provide effective redress for violation of their rights.

Right to Notice of Meetings and Right to Attend Meetings

To promote transparency and goodwill, it is a Company policy to encourage the attendance of all its stockholders, including minority and non-controlling, and institutional investors, at the stockholders' meeting of the Company. The Board should encourage active shareholder participation by sending the Notice of Annual and Special Shareholders' Meeting with sufficient and relevant information at least twenty-eight (28) days before the scheduled meeting.

Unless otherwise provided by law or the By-laws, stockholders as of Record Date constituting at least a majority of the outstanding voting capital stock of the Company is necessary to constitute a quorum. The stockholders may be present in person or represented by proxy.

Right to Appoint a Proxy

The stockholders shall be apprised ahead of time of their right to appoint a proxy if they cannot attend their meetings in person. Subject to the requirements of the By-laws, the exercise of that right shall not be unduly restricted and any reasonable doubt about the validity of a proxy should be resolved in the stockholder's favor.

Right to Propose the Holding of Meetings and to Propose Agenda Items

All stockholders including minority and non-controlling, have the right to propose the holding of a meeting as well as the right to propose items in the agenda of the meeting, provided that the items proposed are for legitimate business purposes, all in accordance with the By Laws and the existing laws.

With regard to the right of stockholders to propose agenda items, the Company shall ensure the exercise of the right including in the notice and agenda of stockholders meeting an item for the consideration of such other business as may properly come before the meeting.

Right to Make Nominations to the Board of Directors

Every stockholder, including non-controlling and minority, has a right to submit a nomination for election to the Board. The stockholders, in making their nominations, or the Company, are encouraged to make use of professional search firms or external sources of candidates when searching for candidates to the Board.

Voting Right and Right to Participate at Stockholders Meetings

- In all items for approval, each share of stock entitles its registered owner as of the record date to one vote. The Company has two classes of shares, common and participating preferred shares. Both classes of shares have equal voting rights.

- Voting shall be by poll and the Company shall provide the mechanism to implement the same at every stockholders meeting.
- Under the Company's By-Laws, the affirmative vote of stockholders as of the record date constituting at least a majority of the outstanding voting capital stock of the Company is necessary to approve matters requiring stockholders' action, unless otherwise provided for under existing laws, with the exception of the following corporate acts and measures which must be ratified and/or approved by the stockholders representing or constituting at least two thirds (2/3) of the outstanding capital stock of the Company:

  a. Amendment of the Articles of Incorporation;
  b. Adoption and/or amendment of the By-Laws (unless the power to amend By Laws have been delegated to the Board by the stockholders);
  c. Sale, lease, exchange, mortgage, pledge or other disposition of all or substantially all of the corporate property;
  d. Incurring, creating or increasing bonded indebtedness; Increase or decrease of capital stock;
  e. Merger or consolidation of the Company with another company;
  f. Investment of corporate funds in another corporation or business for any purpose other than the primary purpose for which it was organized; and
  g. Dissolution of the Company, among others.

- For the election for directors, every stockholder shall have the right to vote, in person or by proxy, the number of shares owned by him for as many persons as there are directors to be elected, or to cumulate his votes by giving one candidate as many votes as the number of such directors multiplied by the number of his shares shall equal, or by distributing such votes on the same principle among any number of candidates.
- The stockholders shall also have an opportunity during the stockholders' meeting to ask questions and raise their issues relevant to the agenda items. The minutes of the meeting record the shareholder questions and corresponding answers given by the directors and officers of the Company.
- The Board should encourage active shareholder participation by making the result of the votes taken during the most recent Annual or Special Shareholders' Meeting publicly available the next working day. In addition, the Minutes of the Annual and Special Shareholders' Meeting should be available on the Company website within five (5) business days from the end of the meeting.

Dividend Rights

The Company continues its practice of offering its shareholders an equitable share of the Company's profits. Stockholders have the right to receive dividends subject to the requirements of existing laws and contractual covenants on dividend declaration, and the dividend payout policy of the Company. In 2013, the Board of Directors confirmed its dividend payout policy which entitles holders of common shares and participating preferred shares to annual cash dividends equivalent to 35 percent of the prior year's net income payable at least semi-annually, on such dates as may be determined by the Board of Directors, subject to applicable rules and regulations on record dates and payment dates. The participating preferred shares participate in the earnings at a rate of 1/10 of the dividends paid to a common share.

As a matter of policy, payment dates of dividends declared are fixed within thirty (30) days from date of declaration. In 2019, the company declared ₱2.243 billion as dividends.

Pre-Emptive Right

All stockholders have pre-emptive rights or the right to subscribe to new shares of the Company, unless there is a specific denial of this right in the Articles of Incorporation or any amendment thereto in relation to the feature of a particular class of share.

The Articles of Incorporation may provide the specific rights and powers of shareholders with respect to the particular shares they hold, all of which are protected by law so long as they are not in conflict with the Corporation Code.

Right to Information and Inspection

In addition to regular posting and disclosures of material information at the Company website, a shareholder shall be provided with periodic reports on relevant information about the Company upon written request for a legitimate purpose. Shareholders shall be allowed to inspect corporate books and records , including minutes of Board Meetings and stock registries in accordance with the Corporation Code and shall be provided an annual report, including financial statements.

Appraisal Right

In accordance with the Corporation Code, shareholders may exercise appraisal rights under the following circumstances:

- In case any amendment to the Articles of Incorporation has the effect of changing or restricting the rights of any stockholders or class of shares, or of authorizing preferences in any respect superior to those of outstanding shares of any class, or of extending or shortening the term of corporate existence;
- In case of sale, lease, exchange, transfer, mortgage, pledge or other disposition of all or substantially all of the corporate property and assets as provided in the Corporation Code; and
- In case of merger or consolidation.

Quorum and Voting Procedures at the Stockholders' Meetings

Under the Company's By-Laws, the affirmative vote of stockholders as of the record date constituting at least a majority of the outstanding voting capital stock of the Company is necessary to approve matters requiring stockholders' action, unless otherwise provided for under existing laws, with the exception of the following corporate acts and measures which must be ratified and/or approved by the stockholders representing or constituting at least two thirds (2/3) of the outstanding capital stock of the Company:

- Amendment of the Articles of Incorporation;
- Adoption and/or amendment of the By-Laws (unless the power to amend By Laws have been delegated to the Board by the stockholders);
- Sale, lease, exchange, mortgage, pledge or other disposition of all or substantially all of the corporate property;
- Incurring, creating or increasing bonded indebtedness;
- Increase or decrease of capital stock;
- Merger or consolidation of the Company with another company;
- Investment of corporate funds in another corporation or business for any purpose other than the primary purpose for which it was organized; and
- Dissolution of the Company, among others.

For the election for directors, every stockholder shall have the right to vote, in person or by proxy, the number of shares owned by him for as many persons as there are directors to be elected, or to cumulate his votes by giving one candidate as many votes as the number of such directors multiplied by the number of his shares shall equal, or by distributing such votes on the same principle among any number of candidates.

Voting shall be by poll. Stockholders may opt for manual or electronic voting either in person or by proxy. For manual voting, each stockholder will be given a ballot upon registration to enable the stockholder to vote in writing per item in the agenda.

For electronic voting, there will be computer stations placed outside the Ballroom where stockholders may cast their votes electronically. Both the paper ballot and computer platform for electronic voting will contain the proposed resolutions for consideration by the stockholders and each proposed resolution will be shown on screens in front of stockholders as the same is taken up at the meeting. Stockholders may cast their vote anytime during the meeting.

In addition, a stockholder may vote electronically in absentia using the online web address provided by the Company subject to validation purposes. A stockholder voting electronically in absentia shall be deemed present for purposes of quorum. All votes will be counted and tabulated by the Office of the Corporate Secretary and the Committee of Inspectors of Ballots and Proxies. The results of voting will be validated by SGV & Co., the independent party appointed for the purpose.

For the election of the eleven (11) members of the Board of Directors, the eleven (11) nominees receiving the highest number of votes will be declared elected as directors of the Company. However, if there are only eleven (11) nominees, all nominees shall be declared elected upon approval of motion.

PUBLIC OWNERSHIP

The Company is compliant with the requirement of the PSE on minimum public ownership with 55.89 percent of its shares subscribed and owned by the public as of December 31, 2019. In compliance with the requirements of the PSE, the Company regularly and timely discloses its public ownership report and immediately makes a public disclosure of any change thereon.

Summary of Legal and Beneficial Ownership of the Board, Key Officers, and Major Shareholders

Name	Number of Shares Owned as of December 31, 2019	Class of Shares	Number of Shares Owned as of December 31, 2018	Class of Shares
Fernando Zobel de Ayala	1	Common	1	Common
Jaime Augusto Zobel de Ayala	1	Common	1	Common
Jose Rene Gregory D. Almendras	5,000	Common	N.A.	Common
Gerardo C. Ablaza, Jr.	4,126,078	Common	4,126,078	Common
Antonino T. Aquino	12,749,543	Common	12,749,543	Common
Delfin L. Lazaro	1	Common	1	Common
Jaime C. Laya (ID)	59,800	Common	19,800	Common
Sherisa P. Nuesa (ID)	5,093,607	Common	5,093,607	Common
Jose L. Cuisia, Jr. (ID)	1	Common	1	Common
Oscar S. Reyes (ID)	330,001	Common	330,001	Common
Ferdinand M. dela Cruz[1]	N.A.	N.A.	2,965,686	Common
John Eric T. Francia[2]	N.A.	N.A.	1	Preferred

Name	Number of Shares Owned as of December 31, 2019	Class of Shares	Number of Shares Owned as of December 31, 2018	Class of Shares
Solomon M. Hermosura	50,100	Common	50,100	Common
Virgilio C. Rivera, Jr.	3,265,058*	Common	2,242,795	Common
Abelardo P. Basilio	1,069,700***	Common	1,069,200	Common
Ma. Cecilia T. Cruzabra	N.A.	N.A.	N.A.	N.A.
Esmeralda R. Quines	707,590	Common	837,590	Common
Janine T. Carreon	514,800**	Common	514,800	Common
Liwayway T. Sevalla	63,000*	Common	63,000	Common
Maidy Lynne B. Quinto	175,000**	Common	140,000	Common
Arnold Jether A. Mortera[3]	342,900**	Common	N.A.	N.A.
Robert Michael N. Baffrey[4]	470,723**	Common	N.A.	N.A.
Evangeline M. Clemente[5]	312,400**	Common	N.A.	N.A.
Geodino V. Carpio[6]	N.A.	N.A.	1,961,100	Common
Thomas T. Mattison[7]	N.A.	N.A.	474,100	Common

[1] Mr. Ferdinand M. dela Cruz resigned as Director, President & Chief Executive Officer (CEO) effective August 31, 2019.
[2] Mr. John Eric T. Francia resigned as Director effective May 14, 2019.
[3] Mr. Arnold Jether A. Mortera was appointed as Acting Group Director for Corporate Operations during the Organizational Meeting of the Board held on April 22, 2019.
[4] Mr. Robert Michael N. Baffrey was appointed as Acting Group Director for Subsidiary Operations on July 1, 2019and took effect on July 16, 2019.
[5] Ms. Evangeline M. Clemente was appointed as Acting Group Director for Strategic Asset Management on July 17, 2019 and took effect on August 1, 2019.
[6] Mr. Geodino V. Carpio resigned as Chief Operating Officer (COO) for Manila Water Operations on April 16, 2019.
[7] Mr. Thomas T. Mattison resigned as Group Director for Corporate Operations effective April 22, 2019.

* Indirectly owned/ESOWN
** Includes indirectly owned/ESOWN
*** Includes shares held through PCD Nominee Corporation and ESOWN

INDEPENDENT EXTERNAL AUDITOR AND ITS REMUNERATION

In the last ASM held on April 22, 2019, the stockholders approved the appointment of Sycip Gorres Velayo and Company (SGV & Co.) as external auditor of the Company for an audit fee of ₱2,200,000 exclusive of value-added taxes and out of pocket expense. Prior to the stockholders' meeting, the Audit Committee endorsed, and the Board approved, the endorsement of SGV & Co. for appointment as the external auditor of the Company.

The external auditor of the Company is tasked with the audit of the Company's annual financial statements. Where the Company engages the services of SGV & Co. for non-audit services or consultancy, the Company, as a matter of policy, ensures that the fees received by SGV & Co. on such non-audit services are not more than the approved audit fees in order not to impair the external auditor's independence which should be maintained at all times to assure the stockholders of the integrity of the Company's financial reports.

The External Auditor shall (a) perform fair audits independently from the Company, its management and controlling shareholders, so that shareholders and other users may maintain confidence in the Company's accounting information; (b) check whether any fact conflicts with the audit results in the information disclosed regularly with the audited financial statements, and demand correction, if necessary; (c) attend the annual stockholders meeting and answer any questions on audit reports and on themselves, their work and their remuneration; and (d) perform such other functions as may be approved by the Audit Committee in the engagement of the external auditor, provided, however, that non-audit work shall not be in conflict with its functions as external auditor.

External Audit Fees	Audit and Audit-Related Fees of the Company	
	2019	2018
Audit Fees	₱2,200,000.00	₱2,100,000.00
Tax Fees	₱178,400.00	-
Non-Audit Fees[1]	₱997,000.00	₱261,970.00
TOTAL	**₱3,375,400.00**	**₱2,361,970.00**

[1] Includes proxy validation, validation of ASM votes, Loan Compliance report and training.

In the pursuit of the Company's thrust to continuously improve awareness of best practices in the conduct of its business and operations especially in corporate governance across the organization, including dealings with its business partners and customers, Manila Water constantly updates its website, www.manilawater.com, with a section dedicated to corporate governance and investor relations.

The Corporate Governance section of the website contains all disclosures made by the Company to the PSE and SEC, as well as its Manual, the Code, the Charters of the Board and its Committees, the various corporate governance policies and other matters and information of relevance to the stockholders and all stakeholders.

The Company discloses its corporate governance practices, corporate events calendar, and other material information on its website in a timely manner.

The Investor Relations section houses all information that may be required by the investors, stockholders and stakeholders. The site has been enhanced to be user-friendly and is accessible to the public at all times.

CORPORATE GOVERNANCE RECOGNITION AND AWARDS

The Company's commitment to uphold the highest standards of good corporate governance has again been confirmed and recognized through the prestigious awards it has received. On June 11, 2019, the company received a 3-star arrow recognition from the Institute of Corporate Directors for its performance rating against the 2018 ASEAN Corporate Governance Scorecard. In 2018, it was also named as one of ASEAN's Top 50 Publicly Listed Companies on Corporate Governance at the 2018 ASEAN Corporate Governance Awards, Top 10 Philippine Publicly Listed Companies, and Top 5 Industry Sector by the Institute of Corporate Directors, and Platinum Awardee for Excellence in Environmental, Social and Governance Practices by the Asset.

Board of Directors

From left to right

JAIME C. LAYA
Independent Director

DELFIN L. LAZARO
Director

FERNANDO ZOBEL DE AYALA
Chairman

JOSE RENE GREGORY D. ALMENDRAS
Director

GERARDO C. ABLAZA, JR.
Director

OSCAR S. REYES
Lead Independent Director

SHERISA P. NUESA
Independent Director

JAIME AUGUSTO ZOBEL DE AYALA
Vice Chairman

ANTONINO T. AQUINO
Director

JOSE L. CUISIA, JR.
Independent Director

Management Committee

From left to right

ARNOLD JETHER A. MORTERA
Group Director
Corporate Operations

EVANGELINE M. CLEMENTE
Group Director
Strategic Asset Management

VIRGILIO C. RIVERA, JR.
Chief Operating Officer
New Business Operations

MAIDY LYNNE B. QUINTO
Group Director
Subsidiary Operations

ESMERALDA R. QUINES
Group Director
East Zone Business Operations

ROBERT MICHAEL N. BAFFREY
Group Director
Corporate Project Management

MA. CECILIA T. CRUZABRA
Chief Finance Officer, Treasurer, Compliance Officer, And Group Director For Corporate Finance & Strategy

ABELARDO P. BASILIO
Chief Operating Officer Manila Water Operations

LIWAYWAY T. SEVALLA
Group Director Chief Information Officer, Data Protection Officer, and Group Director, Business and Technology Services

JO KRISTINE C. REVIL
Enterprise Stakeholder Engagement Head and Group Head Corporate Regulatory Affairs

JANINE T. CARREON
Group Director Corporate Human Resources

JOSE RENE GREGORY D. ALMENDRAS
President and Chief Executive Officer

NESTOR JERIC T. SEVILLA, JR.
Group Head Corporate Strategic Affairs and Department Head Corporate Communications

Management Team

As of December 31, 2019

OFFICE OF THE PRESIDENT

Gerardo M. Lobo II
Department Head
Legal

Xerxes Noel O. Ordanez
Department Head
Internal Audit

Ia Laurienne R. Castro
Litigation
New Business Development
and Regulatory Head
Legal Department

CORPORATE REGULATORY AFFAIRS GROUP

Elmer M. Largo
Department Head
Technical Regulation

Marvin V. Lascano
Department Head
Financial Regulation

Maria Lourdes P. Miranda
Department Head
Business Operations Regulation

BUSINESS AND TECHNOLOGY SERVICES GROUP

Daisy Marie D. Balagtas
Domain Head
Finance

Elmer D. Pevidal
Department Head
BTS Service Delivery and Governance

Alexander S. Guray
Domain Head[1]
Service Management and
Department Head[1]
Infrastructure Planning and Delivery

Felise Isabel J. Oclarit
Service Delivery Governance Head

Jocelyn D. Santiago
IT Delivery Lead

CORPORATE FINANCE AND STRATEGY GROUP

Pauline M. Mercado
Division Head
MWO/Parent Controllership

Mark Tom Q. Mulingbayan
Department Head
Sustainability

Mark S. Orbos
Department Head
Corporate Strategy and
Investor Relations

Karoline C. Sangalang
Chief Finance Officer
Manila Water Philippine Ventures
and Manila Water Total Solutions

Jocelyn Frances P. Sison
Division Head
Treasury and Enterprise
Risk Management

Nathan Gideon H. Correa
Department Head
Concession Investment Accounting

Ma. Lourdes M. Dalusung
Finance Head
Laguna AAAWater Corporation

Lizelle Z. Dimacuha
Department Head
Tax Management

Ma. Irel M. Espuerta
Finance Head
MWPV Visayas-Mindanao

Anna Marie Joy S. Fernandez
Finance Head
MWPV Corporate Finance

Anne Lizbeth J. Olmo
Department Head
Financial Accounting

Marsha Emelinda Q. Santos
Department Head
Financial Planning

Alvin S. Evangelista
Finance Head[1]
Vietnam

Jeza P. Salcedo
Finance Head[1]
Estate Water

Mark Anthony Tuazon
Department Head[1]
Controllership and Analysis

Jerome V. Caylao
Corporate Planning Manager

CORPORATE HUMAN RESOURCES GROUP

Chester Lawrence D. Caras
Department Head
People Development
and Engagement

Camela A. Chiu
Department Head
HR Business Partnership

Yvette B. Sonza
Department Head
Talent Acquisition
OD, and Succession Management

Aileen V. Yoro
Department Head
Total Rewards Management

CORPORATE OPERATIONS GROUP

Joemar B. Emboltorio
Division Head
Water Supply Operations

Estelita C. Orodio
Division Head
Technical Services

Donna Eloisa C. Perez
Division Head[1]
Used Water Operations and
Department Head
Used Water Performance and Planning

Ronan Joy S. Abear
Department Head
Meter Management

Sarah Monica E. Bergado
Department Head
Operations Management Support

[1] As of December 31, 2019, incumbent is Officer-in-Charge.

Sharon Parker B. Cerbito
Grid Facilities Head
Used Water Operations

Jennifer Mitchell V. Chan
Grid Facilities Head
Used Water Operations

Joannatess B. De Vera
Department Head
Laboratory Services

Rey Ann C. Dela Cruz
Department Head
Water Supply Operations Planning

Rommel F. Faustino
Grid Facilities Head
Used Water Operations

Allan Roy B. Ortiz
Department Head
Business Continuity Solutions

Roel Stephen M. Picart
Department Head
Fleet Management

Dexter M. Quibuyen
Department Head
Operations Monitoring
and Control

Orlando A. Villareal
Department Head
Distribution Operations

Lyn Joceffin D. Zamora
Department Head
Treatment Operations

Gerald C. Balucan
Department Head[1]
Maintenance Services

Ryan Paulo O. Buan
Department Head[1]
Water Sources Operations

Eden Lou M. Dela Cruz
Department Head[1]
Property Management

Florante A. Panganiban
Department Head[1]
Compliance and
Watershed Management

William C. Alcantara
Operations Program Manager

CORPORATE PROJECT MANAGEMENT GROUP

Edgar B. Bausa
Department Head
Engineering

Anthony D. Castillo
Department Head
Construction Management

Renato C. Belmonte, Jr.
Headline Project Manager

Bernadette E. Del Rosario
Department Head
Project Stakeholder Engagement

Rolly D. Falculan
Department Head
Project Management Office

Jocelyn M. General
Headline Project Manager

Arlene Kris C. Go-Sy
Department Head
Quality Assurance

Maria Elizabeth D. Tayamora
Headline Project Manager

Jommel Omar A. Gomez
Department Head[1]
Safety Solutions

Benedicto E. Amarillo
Senior Project Manager

Michaelangelo V. Cubelo
Senior Project Manager

Avelino P. Marfori III
Senior Project Manager

Byder M. Nangit
Senior Project Manager

Princess Jennifer P. Patricio
Senior Project Manager

Eden J. Polloso
Senior Project Manager

Julius Edgar B. San Juan
Senior Project Manager

Rene N. Santos
Framework Manager

Jackie Lou O. Siat
Senior Project Manager

CORPORATE STRATEGIC AFFAIRS GROUP

Fernando L. Busuego III
Department Head
Advocacy and Research

EAST ZONE BUSINESS OPERATIONS GROUP

Marvin J. Panday
Division Head
East Zone Business Area Operations

Diana Lou B. Gomez
Division Head[1]
East Zone Business Support

Valentino S. Alano
Area Business Manager
Quezon City

Jeanifer L. Aurelio
Area Business Manager
Mandaluyong-Makati

Raquel R. Catacutan
Department Head
Customer Service and
Stakeholder Management

Katherine May F. Delos Reyes
Department Head
Demand Forecasting and TMS
Management

Emmanuel S. Ferrer III
Department Head
Program and Policy Development

Marie Joy S. Flores
Area Business Manager
Marikina

Romely T. Paraiso
Area Business Manager
Pasig

Kristoffer D. Sabater
Area Business Manager
Rizal

Mary Celine G. Dela Torre
Department Head[1]
Billing and Collection

Al D. Lamoste
Area Business Manager[1]
Taguig

[1] As of December 31, 2019, incumbent is Officer-in-Charge.

STRATEGIC ASSET MANAGEMENT GROUP

Christine Aubrey N. Emboltorio
Department Head
Strategic Asset Planning

Gillian Mari B. Berba
Department Head
Portfolio Management

Carlos Noel P. Carlos Jr.
Department Head
Asset Investment and
Management Support

Frederick S. Sangalang
Department Head
Asset Management

Froilan Antonio C. Bacuňgan
Asset Performance Evaluation
and Optimization Manager

Catherine R. Co
Portfolio Manager

Elwin A. Merquita
Water Systems Analysis and
Modelling Manager

Romulo A. Samia, Jr.
Used Water Systems Analysis and
Planning Manager

STRATEGIC PROCUREMENT AND SUPPLY CHAIN GROUP

Mira Gloria R. Bautista
Department Head[1]
Operational Planning and
Procurement

Shiela Mae H. Muaña
Department Head[1]
Inventory and
Warehouse Management

Jhoana R. Tamayor
Department Head[1]
Procurement

MANILA WATER FOUNDATION

Reginald M. Andal
Executive Director
Manila Water Foundation

MANILA WATER PHILIPPINE VENTURES

Shoebe Hazel B. Caong
General Manager
Laguna AAAWater Corporation

Barny F. Kim
General Manager and
Regional Business Development Head
Estate Water

Eleanor B. Misa
Human Resources Head

Constantine O. Uy
Regional Business Development Head
VisMin RBD

Maria Mabelle G. Amatorio
General Manager[1]
Boracay Island Water Company

Ramoncito L. Gomez
General Manager[1]
Manila Water Technical Ventures

Christian Mhel C. Marcos
General Manager[1]
Clark Water Corporation and
Regional Business Development Head[1]
North Luzon RBD

Real C. Magtangob
Regional Business Development Head[1]
South Luzon RBD

Rodrigo A. Abinsay
Operations Manager
Zamboanga Water Company

Melissa A. Alcasid
Department Head
Technical Operations
Laguna AAAWater Corporation

Blanca Eunicia S. Aldaba
Department Head
Regulatory and External Affairs
Boracay Island Water Company

Teresita S. Arendela
Finance Head
North Luzon

Christian Henritz R. Batallones
Operations Manager
Calbayog Water Company, Inc

Donna May D. Buaquen
HR Business Partner
North Luzon

Jeson Jason J. Campos
Department Head
Technical Sales
Manila Water Technical Ventures

Ma. Christina S. Cruz
Operations Manager
Obando Water Company, Inc. and
Bulakan Water Company, Inc.

Rubenson M. Cruz
Department Head
Technical Services
Estate Water

Rodel V. Del Rosario
Department Head
Technical Services
Laguna AAAWater Corporation

Sol Teresita N. Dimayuga
Department Head
Regulatory and External Affairs
Laguna AAAWater Corporation

Felipe A. Fradejas, Jr.
Department Head
Project Management
Laguna AAAWater Corporation

Kristine Jessah R. Guevarra
Business Operations Support Head
Subsidiary Operations

Liezel T. Lee
Policy and Program Development Head
Subsidiary Operations

[1] As of December 31, 2019, incumbent is Officer-in-Charge.

Edward R. Limosnero
Department Head
Business Operations
Estate Water

Francisco A. Loresco
New Business Development Head
Laguna AAAWater Corporation

Adrian Bryan M. Magallanes
Operations Manager
Calasiao Water Company, Inc.

Mayee Henessy R. Miranda
HR Business Partner
New Business Development and MWAP

Camille B. Orbeso
Department Head
Business Operations
Laguna AAAWater Corporation

Jose Paulo V. Serias
Department Head
Technical Operations
Estate Water

Pieter L. Tobing
Special Projects/Transition Lead
Subsidiary Operations

Christian Byron M. Villamor
Department Head
Project Management and
Technical Services
Clark Water Corporation

Marco C. Anasco
Department Head[1]
Technical Operations
Clark Water Corporation

Sundy N. Bergado
New Business Development Head[1]
Estate Water

Rhoel H. Borhillo
Finance Head[1]
Manila Water Technical Ventures

Rei Christian C. Buluran
Operations Manager[1]
Bulacan MWPV Development Corporation

Raymund H. Camara
Department Head
Project Management and
Technical Services
Boracay Island Water Company

Danvir Mark D. Farnazo
Operations Manager[1]
Tagum Water Company, Inc

Joanna Paz I. Intas
Department Head[1]
Technical Operations
Boracay Island Water Company

Ruby Rose G. Mercado
Operations Manager[1]
Cebu Manila Water Development, Inc.

Angelie C. Miranda
Operations Manager[1]
MWPV South Luzon Water Corporation

Giovanni G. Ocampo
Department Head[1]
Regulatory & External Affairs
Clark Water Corporation

Jennifer S. Ordonez
HR Business Partner[1]
MWPV Corporate, Estate Water
Manila Water Technical Ventures, and
Manila Water Total Solutions

Jasmin Bien S. Orpilla
Finance Head[1]
Boracay Island Water Company

John Michael M. Rico
New Business Development Head[1]
VisMin RBD

Eidelweiss S. Pascua
Department Head[1]
Business Operations
Clark Water Corporation

Emmanuel G. Pineda
Department Head[1]
Program Management
Manila Water Technical Ventures

Kim Ameltriof L. Twaño
New Business Development Head[1]
North Luzon RBD

MANILA WATER ASIA PACIFIC

Antonio B. Capati
Country Manager
Indonesia

John Walter E. Tendencia
Country Manager
Vietnam

Bernaliza B. Espina
New Business Head
Indonesia

Raymund V. Vagilidad
Operations Manager
Thu Duc Water

Lawrence G. Velasco
Finance Head

MANILA WATER TOTAL SOLUTIONS

Vincent Raymond C. Siat
General Manager[1]
Healthy Family

Roberto V. Vasquez
Department Head[1]
Product Innovation and
Development

Rodney D. Cruz
Business Head
Healthy Family

Marius Joseph V. Villaronte
Operations Head[1]
Healthy Family

[1] As of December 31, 2019, incumbent is Officer-in-Charge.

Awards and Citations

Memberships and Affiliations

2019 MWC AWARDS AND CITATIONS

2019 Top-Performing Publicly Listed Companies (PLCs)
ASEAN Corporate Governance Scorecard
Institute of Corporate Directors (ICD)

Affordable World-class Water for All: Plug and Play Hybrid Water Treatment System
Manila Water Total Solutions and Manila Water Philippine Ventures - Bulacan Aqua Estates
2019 Ayala Innovation Award
Spark 6: Ayala Innovation Summit

Manila Water Foundation
2019 Asia's Community Care Company of the Year
Asia Corporate Excellence and Sustainability (ACES) Awards

Laguna Water's TSEK!
Tamang Sanitasyon Equals Kalinisan, Kalusugan at Kaunlaran ng Bayan Campaign: Reflecting Good Health, Sustainable Environment, and Economic Growth and Development through Sanitation
Gold Anvil Award
54th Anvil Awards
Public Relations Society of the Philippines (PRSP)

QX Academy: Creating Shared Value and Sustainable Quality Execution through Skills and Training Development for Partner Vendors
Silver Anvil Award
54th Anvil Awards
Public Relations Society of the Philippines (PRSP)

Mr. Benigno Acacio,
Fleet Heavy Equipment Officer,
Corporate Operations Group,
Manila Water
2019 The Outstanding Workers of the Republic (TOWER) Awardee, Rotary Club of Manila, People Management Association of the Philippines (PMAP), Petron Foundation Inc. and Department of Labor and Employment (DOLE)

2017 TO PRESENT MEMBERSHIPS AND AFFILIATIONS

ASEAN Business Club

Asia Pacific Occupational Health and Safety Organization (APOSHO)

Asia Water Council (AWC)

Association of Safety Practitioners of the Philippines, Inc (ASPPI)

British Chamber of Commerce of the Philippines (BCCP)

Corporate Network for Disaster Response (CNDR)

EU-Philippine Business Network (EPBN)

European Chamber of Commerce of the Philippines

Financial Executive Institute of the Philippines

Good Governance and Advocates of the Philippines

IFC Inclusive Business Council

Information Systems Audit & Control Association (ISACA) Philippines

Information Association of Business Communicators

International Water Association (IWA)

La Mesa Watershed Multi-sectoral Management Council

Makati Business Club (MBC)

Management Association of the Philippines (MAP)

People Management Association of the Philippines (PMAP)

Philippine Business for Social Progress (PBSP)

Philippine Business for the Environment (PBE)

Philippine Chamber of Commerce and Industry

Philippine Disaster Resiliency Foundation (PDRF)

Philippine Institute for Supply Management (PISM)

Philippine Water Partnership (PWP)

Philippine Watershed Management Coalition

Philippine Water Works Association (PWWA)

DNV·GL

INDEPENDENT ASSURANCE STATEMENT

INTRODUCTION

DNV GL Business Assurance Philippines Branch ("DNV GL") has been commissioned by the management of Manila Water Company Inc. ("MWC", SEC Identification Number: A199611593) to undertake an independent assurance of the sustainability/non-financial disclosures in MWC's 2019 Integrated Report (the "Report") in its printed format for the year ended 31st December 2019. The intended users of this Assurance Statement are the management of the Company.

We performed this assurance engagement using DNV GL's assurance methodology VeriSustain™[1] , which is based on our professional experience, international assurance best practice including International Standard on Assurance Engagements (ISAE) 3000 Revised*, along with the Global Reporting Initiative's ("GRI's") Principles for Defining Report Content and Report Quality. The verification engagement was carried out from December 2019 to March 2020.

We understand that the reported financial data and related information are based on statutory disclosures and Audited Financial Statements#, which are subject to a separate independent statutory audit process. We did not review financial disclosures and data as they are not within the scope of our assurance engagement.

We planned and performed our work to obtain the evidence we considered necessary to provide a basis for our assurance opinion related to non-financial sustainability disclosures in this Report. We are providing a 'limited level' of assurance based on DNV GL VeriSustain and no external stakeholders were interviewed as part of this assurance engagement.

The engagement excludes the sustainability management, performance, and reporting practices of MWC's suppliers, contractors, and any third-parties mentioned in the Report. The Company position statements, the statements for the management approach, and case studies and examples are excluded from the scope of our work.

RESPONSIBILITIES OF THE MANAGEMENT OF MWC AND OF THE ASSURANCE PROVIDER

The Board of MWC has sole responsibility for the preparation of the Report and is responsible for all information provided in the Report as well as the processes for collecting, analysing and reporting the information presented in the Report. MWC has stated that this Report was based on the <IR> framework and has adopted general disclosures and selected performance indicators for disclosures related to identified material topics from the GRI Standards 2016.

DNV GL's assurance engagements are based on the assumption that the data and information provided by the Company to us as part of our review have been provided in good faith, true, and free from material misstatements. Because of the selected nature (sampling) and other inherent limitation of both procedures and systems of internal control, there remains the unavoidable risk that errors or irregularities, possibly significant, may not have been detected. DNV GL was not involved in the preparation of any statement or datum included in the Report except for this Assurance Statement. DNV GL expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Assurance Statement.

Our verification engagement included limited level of verification of sustainability performance disclosures for the identified material topics of MWC as identified under the reporting boundary brought out in the Report in the section "Material Aspects" ie. covering entities over which Manila Water has operational control or has seconded employees in operations. Our verification applies a ±5 percent uncertainty threshold towards errors and omissions for the performance data brought out in the Report.

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[1] *The VeriSustain protocol is available on dnvgl.com.*
* *Assurance Engagements other than Audits or Reviews of Historical Financial Information.*
\# *Dated 20th February 2020*

BASIS OF OUR OPINION

A multi-disciplinary team of sustainability and assurance specialists performed assurance at the Head Office at Quezon City, and selected sites of MWC. We undertook the following activities:

- Review of the non–financial sustainability disclosures in this Report;
- Review of approach to materiality determination and stakeholder engagement and recent outputs although DNV GL did not have any direct engagement with external stakeholders;
- Review of information provided to us by the Company on its reporting and management processes related to sustainability performance for the reporting year based on the reporting framework adopted by MWC;
- Interviews with selected members of leadership team, and senior managers responsible for management of sustainability issues and review of selected evidence to support issues discussed. We were free to choose interviewees and interviewed those with overall responsibility for the programmes to deliver the targets for medium-and long-term vision, mission and milestones;
- Performed desk review of selected sustainability parameters for sampled entities, and findings were discussed with Corporate Sustainability Team;
- Planned site visits to three (3) sites – the Taguig North Sewage Treatment Plant in Taguig City, the East La Mesa Water Treatment Plant in Quezon City and the Marikina Business Area Office in Marikina City – to review the processes and systems for preparing site level sustainability data and implementation of sustainability strategy. We were free to choose the sites we visited
- Review of supporting evidence for key claims and data disclosed in the Report. Our verification processes were prioritised based on our risk-based approach, i.e. relevance of identified material topics and sustainability context of the business;
- Review of the processes for gathering and consolidating the performance data and, for a sample, checking the data consolidation at site and corporate levels.

The procedures performed in a limited assurance engagement vary in nature and timing and are shorter in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained if a reasonable assurance engagement had been performed. During the assurance process, we did not come across limitations to the scope of the agreed assurance engagement.

OPINION AND OBSERVATIONS

On the basis of the limited assurance engagement undertaken, nothing has come to our attention to suggest that MWC's 2019 Integrated Report does not properly describe the non-financial performance of identified material topics based on the Guiding Principles and Content Elements of the International <IR> Framework ("<IR> Framework").

Without affecting our assurance opinion, we also provide the following observations:

Stakeholder Inclusiveness

The participation of stakeholders in developing and achieving an accountable and strategic response to Sustainability.

Nothing has come to our attention to suggest that the Report does not meet the requirements related to the Principle of Stakeholder Inclusiveness.

The Report brings out the Company's relationships with its key stakeholders who affect operations and influence performance ie. regulators, customers, employees, the finance community, suppliers and the media. The Report adequately brings out the channels and initiatives that the business has established to engage with identified stakeholders and the key concerns arising from these engagements which are considered in the Company's strategic planning process.

Materiality

The process of determining the issues that are most relevant to an organization and its stakeholders.

Nothing has come to our attention to suggest that the Report does not meet the requirements related to the Principle of Materiality.

The Report describes the processes for identification and prioritization of the Company's material matters, considering the significance of their impacts on communities, business partners, workforce and the environment, and the relative influence on stakeholders' assessment and decision making, considering the <IR> Guiding Principle requirements. The material matters identified were further validated through stakeholder engagements conducted during the year.

Responsiveness

The extent to which an organization responds to stakeholder issues.

Nothing has come to our attention to suggest that the Report does not meet the requirements related to the Principle of Responsiveness.

The Report brings out the Company's responses to identified material topics and significant issues which have arisen during the reporting period through disclosures on strategies, management approach and dedicated 'Special Reports'. Further the Report also brings out its non-financial performance related to its material topics through selected GRI Topic Specific Standards. The Report considers the risks, opportunities and outcomes associated with significant stakeholders and the external environment, and brings out the implications and mitigation mechanisms deployed by the Company to maintain its ability to create value on the long term.

Reliability

The accuracy and comparability of information presented in the report, as well as the quality of underlying data management systems.

Nothing has come to our attention to suggest that the Report does not meet the requirements related to the Principle of Reliability.

The majority of the performance disclosures verified through onsite and offsite verification, i.e. at the Head Office and sampled sites, and through desk reviews, were found to be fairly accurate, reliable, identifiable and traceable to the source. Considering the limited sampling, we did not detect any major errors related to data collection or aggregation. We also reviewed the calculations and related assumptions used for its suitability, taking into account the principle of Reliability. Some of the data inaccuracies identified during the verification process were found to be attributable to interpretation and aggregation errors. These identified errors were communicated, and the responses and corrections made to the reported data and information were reviewed.

Completeness

How much of all the information that has been identified as material to the organization and its stakeholders is reported.

Nothing has come to our attention to suggest that the Report does not meet the requirements related to the Principle of Completeness.

The Report discloses the Company's non-financial disclosures based on <IR> framework and performance during the reporting period 2019 related to its material issues using appropriate GRI Topic Specific Standards, for the identified boundary of operations and covering the Company's approaches to value creation and responses to key challenges faced.

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Neutrality

The extent to which a report provides a balanced account of an organization's performance, delivered in a neutral tone.

Nothing has come to our attention to suggest that the Report does not meet the requirements related to the Principle of Neutrality.

The Report presents disclosures related to the Company's performance, challenges and concerns of stakeholders during the reporting period in a neutral, consistent and balanced manner, applying adequate consideration to not unduly influence stakeholders' assessments made based on the reported data and information.

STATEMENT OF COMPETENCE AND INDEPENDENCE

DNV GL applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2015 – Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements. We have complied with the DNV GL Code of Conduct during the assurance engagement and maintain independence wherever required by relevant ethical requirements.

This engagement work was carried out by an independent team of sustainability assurance professionals. DNV GL was not involved in the preparation of any statement or datum included in the Report except for this Assurance Statement. DNV GL maintains complete impartiality toward internal stakeholders interviewed during the assurance process.

DNV GL has provided assurance to Ayala Corporation, Ayala Land Inc., AC Energy, Globe Telecom, Inc and the Bank of Philippine Islands. In our opinion, there is no conflict of interest in the assurance engagement provided to the business units of Ayala Group.

DNV GL did not provide any services to MWC in 2019 that could compromise the independence or impartiality of our work.

For and on behalf of DNV GL Business Assurance AS Philippines Branch

Kiran Radhakrishnan Lead Verifier, DNV GL – Business Assurance India Private Limited.	Heng Chwin Mak Operations Manager – South East Asia DNV GL Technology Centre. Singapore 118227	Vadakepatth Nandkumar, Assurance Reviewer, Head – Sustainability Operations, DNV GL – Business Assurance India Private Limited.

23rd March 2020, Manila, Philippines

DNV GL Business Assurance AS Philippines Branch is part of DNV GL – Business Assurance, a global provider of certification, verification, assessment and training services, helping customers to build sustainable business performance. www.dnvgl.com

[1] *The DNV GL Code of Conduct is available from the DNV GL website (www.dnvgl.com)*

Management's Discussion and Analysis of Results of Operations and Financial Condition

The following management's discussion and analysis (MD&A) of Manila Water Company, Inc. and subsidiaries' (Group) financial condition and results of operations should be read in conjunction with the Group's audited financial statements, including related notes. This report may contain forward-looking statements that involve risks and uncertainties. The actual results may differ materially from those discussed in the forward-looking statements as a result of various factors, including but not limited to, economic, regulatory, socio-political, financial and other risk factors.

Any references in this MD&A to "our", "us", "we", "MWCI" or the "Group" shall refer to Manila Water Company, Inc., including its subsidiaries. Any reference to "Manila Water Company", "Manila Water", "MWC" or the "Company" shall refer to the Parent Company only.

Additional information about the Group, including recent disclosures of material events and annual/ quarterly reports, are available at our corporate website at www.manilawater.com.

OVERVIEW OF THE BUSINESS

Manila Water Company holds the right to provide water and used water services to the eastern side of Metro Manila (Manila Concession or East Zone) under a Concession Agreement (CA) entered into between the Company and the Metropolitan Waterworks and Sewerage System (MWSS) in August 1997. The original term of the concession was for a period of 25 years to expire in 2022. The Company's concession was extended by another 15 years by MWSS and the Philippine Government in 2009, thereby extending the term from May 2022 to May 2037.

The Company provides water treatment, water distribution, sewerage and sanitation services to more than six million people in the East Zone, comprising a broad range of residential, semi-business, commercial and industrial customers. The East Zone encompasses 23 cities and municipalities spanning a 1,400-square kilometer area that includes Makati, Mandaluyong, Pasig, Pateros, San Juan, Taguig, Marikina, most parts of Quezon City, portions of Manila, as well as the following towns of Rizal: Angono, Antipolo, Baras, Binangonan, Cainta, Cardona, Jala-Jala, Morong, Pililia, Rodriguez, San Mateo, Tanay, Taytay, and Teresa.

Under the terms of the CA, the Company has the right to the use of land and operational fixed assets, and the right, as agent and concessionaire of MWSS, to extract and treat raw water, distribute and sell water, and collect, transport, treat and dispose used water, including reusable industrial effluent discharged by the sewerage system in the East Zone. The Company is entitled to recover over the concession period its operating, capital maintenance and investment expenditures, business taxes, and concession fee payments, and to earn a rate of return on these expenditures for the remaining term of the concession.

Aside from the Manila Concession, the Group has a holding company for all its domestic operating subsidiaries in Manila Water Philippine Ventures, Inc. (MWPV). Currently under MWPV are (1) bulk water supply businesses Manila Water Consortium, Inc. (MW Consortium), a subsidiary of MW Consortium – Cebu Manila Water Development, Inc. (Cebu Water), Davao del Norte Water Infrastructure Company, Inc. (Davao Water), a subsidiary of Davao Water – Tagum Water Company, Inc. (Tagum Water); (2) Water distribution and used water services businesses namely, Boracay Island Water Company (Boracay Water), Clark Water Corporation (Clark Water), Laguna AAAWater Corporation (Laguna Water), Filipinas Water Consortium Holdings Corp. (Filipinas Water), subsidiaries of Filipinas Water – Obando Water Company, Inc. (Obando Water), Metro Ilagan Water Company, Inc. (Ilagan Water), MWPV South Luzon Water Corp. (South Luzon Water) and Bulakan Water Company, Inc. (Bulakan Water), Calbayog Water Company, Inc. (Calbayog Water), North Luzon Water Company, Inc. (North Luzon Water) and Leyte Water Company, Inc. (Leyte Water). Another subsidiary of Manila Water is Calasiao Water Company, Inc. (Calasiao Water), a water supply project for the Calasiao Water District; (3) Business-to-business water and used water service businesses are comprised of Aqua Centro MWPV Corp. (Aqua Centro), Bulacan MWPV Development Corporation (BMDC), Manila Water Technical Ventures, Inc. (MWTV), and EcoWater MWPV Corp. (EcoWater); and (4) performance-based leakage reduction services are provided by Zamboanga

Water Company, Inc. (Zamboanga Water) to the city of Zamboanga. Under MWPV is Estate Water, a division that operates and manages the water systems of townships developed by Ayala Land, Inc.

The holding company for Manila Water's international ventures is Manila Water Asia Pacific Pte. Ltd. (MWAP). Under MWAP are two affiliated companies in Vietnam, namely Thu Duc Water B.O.O. Corporation (Thu Duc Water) and Kenh Dong Water Supply Joint Stock Company (Kenh Dong Water), both supplying treated water to Saigon Water Corporation (SAWACO) under a take-or-pay arrangement. Also under MWAP are Saigon Water Infrastructure Corporation (Saigon Water), a holding company listed in the Ho Chi Minh City Stock Exchange, and Cu Chi Water Supply Sewerage Company, Ltd. (Cu Chi Water). Apart from its operations in Vietnam, MWAP has associates in Thailand and Indonesia through Eastern Water Resources Development and Management Public Company Limited (East Water), a fully integrated water supply and distribution company listed in the Stock Exchange of Thailand (SET), and PT Sarana Tirta Ungaran (PT STU), an industrial water supply operation in Indonesia, respectively.

Lastly, Manila Water Total Solutions Corp. (MWTS), a wholly-owned subsidiary, handles after-the-meter products and services including pipe-laying, integrated used water services, the incubation of new sector businesses and the sale of Healthy Family Purified Water in five-gallon, 500-ml and 350-ml bottles in selected areas in Metro Manila.

CONSOLIDATED FINANCIAL PERFORMANCE

Group net income decreased 16% to ₱5,496 million for the period ending December 31, 2019, with business performance dampened by the impact of the MWSS penalty, voluntary one-time Bill Waiver Program and additional expenses in relation to the water shortage in the Manila Concession during the first half of the year. These challenges were coupled with the continued management of the constrained raw water supply and additional expenses for potential exposures.

In the midst of the challenges faced during the year, the Manila Concession continued to work towards operating efficiency. The Manila Concession reconfigured its distribution network operations so it can provide reliable service to customers.

Furthermore, Group performance for the period was supported by the contribution of the domestic subsidiaries, with MWPV posting net income of ₱450 million. Main drivers of this performance were Estate Water, Laguna Water and Boracay Water.

The Group's key financial performance indicators are discussed below:

	For the periods ended December 31 (in thousand Pesos)			
	2019	2018	**Increase/ (Decrease)**	**%**
Total operating revenues	**21,949,770**	19,821,292	2,128,478	11%
Total cost and expenses (excluding depreciation and amortization)	**9,829,795**	8,076,088	1,753,707	22%
Other income (expense) - net	**557,934**	893,781	(335,847)	-38%
Equity share in net income of associates	**653,502**	699,142	(45,640)	-7%
Others	**(95,568)**	194,639	(290,207)	-149%
EBITDA	**12,677,909**	12,638,985	38,924	0%
Depreciation and amortization	**2,993,763**	2,655,669	338,094	13%
Income before other income/expenses	**9,684,146**	9,983,317	(299,171)	-3%
Interest income (expense) - net	**(1,670,053)**	(1,371,926)	(298,127)	22%
Income before income tax	**8,014,093**	8,611,391	(597,298)	-7%
Provision for income tax	**2,374,668**	1,976,357	398,311	20%
Net income	**5,639,425**	6,635,034	(995,609)	-15%
Non-controlling interest	**143,916**	111,332	32,584	29%
Net income attributable to MWC	**5,495,509**	6,523,702	(1,028,193)	-16%

Consolidated operating revenues grew 11% to ₱21,950 million in 2019 from ₱19,821 million the previous year, on account of the higher revenue contribution of the domestic businesses. This is despite the downward impact of the voluntary one-time Bill Waiver Program to help alleviate the inconvenience of customers affected by the water shortage in the Manila Concession in the first quarter of 2019. The Group derived 75% of its operating revenues from the sale of water (net of Bill Waiver), while 16% came from environmental and sewer charges. Other revenues, which accounted for the balance, are comprised of supervision fees, after-the-meter services, connection fees and septic sludge disposal, among others.

	For the periods ended December 31 (in thousand Pesos)			
	2019	2018	**Increase/ (Decrease)**	**%**
Salaries, wages and employee benefits	**2,344,574**	2,323,082	21,492	1%
Direct costs	**4,327,540**	3,514,476	813,064	23%
Overhead	**2,376,655**	1,427,710	948,945	66%
Premises	**379,285**	387,220	(7,935)	-2%
Other expenses	**401,741**	423,600	(21,859)	-5%
Total cost and expenses (excluding depreciation and amortization)	**9,829,795**	8,076,088	1,753,707	22%

Consolidated costs and expenses (excluding depreciation and amortization) increased by 22% to ₱9,830 million in 2019. This increase was primarily due to the penalty imposed by MWSS in relation to the recent water shortage in the Manila Concession in the first half of 2019, coupled with additional costs for service recovery and operations augmentation and estimates for potential losses which arose in the ordinary course of business.

On a consolidated level, direct costs rose 23% to ₱4,328 million, inclusive of water shortage and other non-recurring costs. This increase was driven mainly by increased power cost due to higher consumption and power rates with the utilization of more deep wells, as well as increased usage of water treatment chemicals with the necessary ramp-up of new water treatment facilities under a still constrained water supply allocation. Overhead costs, which increased 66% in 2019, were driven largely by the ₱534 million penalty

imposed by MWSS in relation to the water shortage, as well as the updated estimates for potential losses. New business development costs stood at ₱177 million, 32% lower than the same period last year as a more focused expansion approach is adopted.

Equity Share in Net Income of Associates decreased 7% during the period to ₱654 million, mainly driven by the weak performance of the Vietnam investments. Said decline was offset by the full-year contribution of the East Water acquisition in March 2018. Consequently, other income declined 38% to ₱558 Million in 2019 from ₱894 Million the previous year.

The movements in operating revenues and expenses as well as other income resulted in consolidated earnings before interest, income taxes, depreciation and amortization (EBITDA) of ₱12,678 million in 2019, flat relative to the same period last year. EBITDA margin declined to 58% from 64% in 2018. Depreciation and amortization rose by 13% to ₱2,994 million mainly attributable to the capital expenditures of the group.

Net interest expense was higher by 22% to ₱1,670 million from the same period last year, driven the loans of the Manila Concession and other subsidiaries. Provision for income tax increased by 20% for the period to ₱2,375 million, on account of the higher taxable income of the Group's subsidiaries combined with the impact of the Units of Production (UOP) depreciation method on the Manila Concession's provision for income taxes.

BUSINESS UNITS' FINANCIAL AND OPERATING PERFORMANCE

Manila Concession

	For the periods ended December 31			
	2019	2018	Increase/ (Decrease)	%
Operating Highlights				
Billed volume (in million cubic meters)	493.9	503.3	-9.4	-2%
Number of billed connections	1,002,380	986,756	15,624	2%
Non-revenue water	10.4%	11.4%	1.0 ppts.	
Financial Highlights (in thousand Pesos)				
Revenues	16,841,503	16,234,100	607,403	4%
Cost and expenses	6,362,099	4,804,394	1,557,705	32%
EBITDA	10,526,894	11,616,760	(1,089,866)	-9%
Net income	5,061,333	6,521,117	(1,459,785)	-22%

Net income of the Manila Concession stood at ₱5,061 million in 2019, a decline of 22% from the same period last year driven primarily by the impact of the water supply shortage on business and operations.

As previously reported, the large decline in La Mesa dam water levels in March 2019 caused water service availability in the East Zone to drop significantly, reaching its lowest level at about 68.5 meters in April. In order to ease the inconvenience of affected customers, the Company announced a one-time voluntary Bill Waiver Program on March 26, 2019. This program has two parts, namely: (1) all customers will receive a bill waiver of the minimum charge in their consumption which represents ten (10) cubic meters covering water, environmental and sewer charges; and (2) all customers from hard-hit barangays with absolutely no water service for at least seven (7) days from March 6 to March 31, 2019 will not be charged at all for the month of March 2019. The bill waiver is in the nature of an abatement or reduction from the gross amount or price to be paid by the customers. This was implemented in April 2019 and was reflected as sales discount in the customer's billings. Said waiver reduced total revenues by ₱353 million. This reduction notwithstanding, revenues managed to grow slightly by 4% to ₱16,842 million. Meanwhile, cost and expenses increased by 32% to ₱6,362 million, driven largely by the ₱534 million penalty imposed by MWSS in relation to the water supply shortage. Even as Manila Water abided by the MWSS decision to impose the penalty by paying the determined amount, Manila Water announced that it has no liability on the penalty's basis as it was not the root cause of the water supply shortage.

Decline in raw water levels was subsequently experienced in Angat Dam during the second quarter of the year, necessitating further reduction of raw water releases to the MWSS Concessionaires. In July 2019, raw water allocation from Angat Dam was set at its lowest, with releases limited to only 35 cms for the MWSS Concessionaires. This lack of available raw water supply severely affected the ability of the Manila Concession to provide reliable service to its customers. In response, the Company exerted efforts to manage the crisis by pushing for network efficiency. Specifically, the Manila Concession's technical and business teams had to learn to manage its operations under a regime of significantly reduced raw water supply. These efforts resulted in a more dynamic and efficient water distribution network.

Coming from the water supply shortage, the Company continues to improve and stabilize operations to provide reliable service to its customers. Focusing on the Company's water supply augmentation projects, production at the Cardona Plant reached 98 MLD as of December 2019. The recommissioning and development of new deep wells continues, with a total capacity of 55 MLD. These initiatives, along with the continued proactive network management/optimization program, has enabled water availability for customers to be kept within regulatory levels despite lower allocation. Current NRW is stable at 10.4%, an improvement of more than 1.0 percentage point from last year's 11.4%, attained even under a still significantly reduced raw water supply allocation.

During the 2nd half of 2019, the Supreme Court ordered each of the MWSS concessionaires, jointly and severally with MWSS, to pay more than ₱921 million in fines for non-compliance with the Clean Water Act. The Company affirmed that it will exercise all its legal options in relation to this case, including the filing of a Motion for Reconsideration which it timely submitted to the Supreme Court on October 2, 2019.

Consistent with the mandate of the Company as the concessionaire for the East Zone, it has invested close to ₱43.56 billion in wastewater capital expenditures since the concession began in 1997, and plans to invest over ₱38 billion more until 2022. Said expenditures outpace the collections of the Company on its sewer and environmental charges, which total ₱40.65 billion to date. These investments are part of the government-approved service improvement plan to further expand sewerage and sanitation services in the East Zone. To date, sewer coverage is at more than 30%, serving close to 2 million in population coming from only approximately 45,000 in when the concession began in 1997.

In November 2019 the Company received the award rendered by the Arbitral Tribunal in the arbitration proceedings between the Company and the Republic of the Philippines constituted under the Permanent Court of Arbitration (PCA). The Tribunal ruled that the Company has the right to indemnification for actual losses suffered by it on account of the Republic's breach of its obligation. The Tribunal ordered the Republic to indemnify the Company in the amount of ₱7.39 billion representing the actual losses it suffered from June 1, 2015 until November 22, 2019. In December 2019, during a committee hearing at the House of Representatives, the Company announced that it will no longer collect the arbitral award recently issued by the PCA. Furthermore, the Company will defer the implementation of Approved Rate Adjustment for 2020, while it continues to work with MWSS on an arrangement as to how and when said deferral will be addressed in the future.

In the same month, the MWSS Board of Trustees issued Resolution No. 2019-201-CO, which revoked its previous resolution (Resolution No. 2009-72 dated April 16, 2009) pertaining to the extension of the Concession Agreement of Manila Water from May 7, 2022 to May 6, 2037. However, on December 20, 2019, MWSS released a press statement clarifying that the recent resolution of its Board of Trustees did not result in the rescission or outright cancellation of the Concession Agreement. In support of this, on January 29, 2020, Manila Water obtained a letter from the MWSS Regulatory Office clarifying the Concession Agreement and the Memorandum of Agreement and Confirmation that provides for the 15-year extension from 2022 to 2037 have not yet been cancelled. Given this clarification by MWSS, Manila Water's Concession Agreement and its concession period (i.e. to terminate in 2037) continue to be in force, as discussions with the government on the Concession Agreement remain ongoing.

In line with the Group's governance and management practices, additional expenses for estimated probable losses pertaining to operations and various legal proceedings that arise in the ordinary course of business are reviewed periodically. Following such review, said estimates are adjusted to reflect the current state of the business. An additional expense of ₱639 million was recognized during the period for the Group's various exposures.

In all, Manila Concession EBITDA ended at ₱10,527 million, with an EBITDA margin of 63%. Consequently, net income ended at ₱5,061 million, with Net Income Margin registering at 30%.

Manila Water Philippines Ventures (MWPV)

The following discussion includes the consolidated results of Manila Water Philippines Ventures, as well as the individual performance of its core domestic operating subsidiaries in Boracay Water, Clark Water, Laguna Water, and Estate Water, which is a division of Manila Water Philippine Ventures.

	For the periods ended December 31			
	2019	**2018**	**Increase/ (Decrease)**	**%**
Operating Highlights				
Billed volume (in million cubic meters)	96.0	85.7	10.3	12%
Financial Highlights (in thousand Pesos)				
Revenues	4,848,502	3,341,746	1,506,756	45%
Cost and expenses	2,952,199	2,288,540	663,659	29%
EBITDA	1,926,552	1,097,942	828,610	75%
Net income attributable to MWC	450,063	194,881	255,182	131%

MWPV ended 2019 with a net income of ₱450 million, 131% higher than the previous year's level of ₱195 million, due to the higher net income of Estate Water, Laguna Water and Boracay Water.

On a consolidated MWPV level, revenues grew by 45% to ₱4,849 million from the ₱3,342 million recorded in 2018. A significant contributor to this improvement was the higher revenues of Estate Water coming mostly from its supervision fees for the provision of design and project management services in the development of water and used water facilities, as well as similar fees for the provision of water and used water services. In addition, portions of the increase in revenues are due to higher average tariff levels in Boracay Water and Laguna Water. Several subsidiaries also saw increases in billed volume during the year, namely Boracay Water and Estate Water, with the re-influx of tourists and the takeover of more property development projects, respectively.

Cost and expenses rose 29% year-on-year to ₱2,952 million, mainly due to increase in direct costs attributable to the combined effects of the following: additional facilities which Estate Water took over in the second half of 2018, increase in power rates in several subsidiaries, as well as additional power cost take up from new operating subsidiaries and higher personnel cost due to headcount increases in line with business expansion. New business development costs for the period stood at ₱151 million, 25% lower than the previous year in line with a more focused approach to expansion.

	For the periods ended December 31			
	2019	2018	Increase/ (Decrease)	%
Clark Water				
Billed volume (in million cubic meters)	14.5	14.1	0.3	2%
Net income (in thousand Pesos)	42,846	80,023	(37,177)	-46%
Laguna Water				
Billed volume (in million cubic meters)	44.1	42.4	1.7	4%
Net income (in thousand Pesos)	408,705	308,206	100,498	33%
Boracay Water				
Billed volume (in million cubic meters)	4.8	3.9	0.9	23%
Net income (in thousand Pesos)	79,150	5,680	73,470	1293%
Estate Water (Division of MWPV)				
Supervision Fees	*807,762*	*320,249*	487,513	152%
Billed volume (in million cubic meters)	10.5	8.9	1.6	18%
Net income (in thousand Pesos)	355,435	121,070	234,365	194%

Clark Water registered billed volume of 14.5 mcm in 2019, only slightly above its billed volume for the same period last year of 14.1 mcm. Consequently, Clark Water's revenues grew 2% to ₱464 million. Meanwhile, total costs and expenses rose by 8% to ₱275 million from ₱256 million last year due to higher direct cost and additional estimates for potential losses. These factors, coupled with higher interest expense, caused Clark Water's 2019 net income to register at ₱43 million, a sharp 46% decline from last year.

Laguna Water's billed volume increased by 4% to 44.1 mcm in 2019 from 42.4 mcm in 2018 on the back of additional new water service connections and subdivision takeover, but were offset by the lower consumption of several LTI locators due to lower production levels and increased water conservation efforts. Laguna Water's revenues grew by 25% year-on-year to ₱1,703 million, on the back of a 25% improvement in average effective tariff to ₱34.7 per cubic meter. Meanwhile, cost and expenses increased by 9% from 2018 to ₱790 million, driven mainly by personnel costs and direct costs related to meter reading services but significantly offset by lower systems costs and concession fees. These movements resulted in a 44% growth in EBITDA to ₱913 million and a 33% increase in net income to ₱409 million for the period ending December 2019.

Boracay Water's 2019 billed volume registered a marked improvement of 23% to 4.8 mcm from last year's 3.9 mcm due to the island's reopening which enabled tourist arrivals to increase by close to 1 million to 2.03 million from the same period last year. The increase in billed volume, coupled by a 19% increase in effective tariff, resulted in a 49% increase in Boracay Water's revenues to ₱675 million for the year. Total cost and expenses increased by 21% versus last year due to the net effect of an increase in sludge disposal costs, partially offset by lower repairs and maintenance costs, systems costs and overhead costs. Net income registered a significant growth of almost 13x from the same period last year to ₱79 million.

Estate Water, a division of MWPV, posted a billed volume growth of 18% to 10.5 mcm for the period ended December 2019, mainly on the back of a 6% increase in billed connections. Total revenues of Estate Water nearly doubled compared to the same period last year mainly driven by the significant increase in supervision fees from ₱320 million to ₱808 million, coupled with billed volume growth with the takeover of new projects. On the other hand, cost and expenses rose by 45% to ₱716 million mainly due to an increase in direct costs such as power costs, bulk water costs, desludging costs, as well as contractual services pertaining to manpower augmentation for incident mitigation and management, as well as subsequent repair and rehabilitation works. The significant increase in revenues outpaced the increase in cost and expenses, resulting in a 183% increase in EBITDA to ₱651 million. Estate Water posted a net income of ₱355 million in 2019, higher by 194% from the previous year. For 2020, Estate Water will adopt a change in accounting treatment wherein Supervision Fees shall be allocated based connection fees and tariff subsidy. Revenue on connection fees shall be recognized based on progress completion of facilities, while revenue on tariff subsidy shall be recognized over 5 years based on the demand projection starting the first water of the project.

Manila Water Asia Pacific (MWAP)

The following discussion includes the consolidated results of Manila Water Asia Pacific (MWAP), as well as the individual performance of the associates in Vietnam, Thailand and Indonesia.

	For the periods ended December 31			
	2019	2018	Increase/ (Decrease)	%
Operating Highlights				
Billed volume (in million cubic meters)*	665.6	572.7	92.9	16%
Financial Highlights (in thousand Pesos)				
Equity Share in Net Income of Associates	653,502	699,142	(45,640)	-7%
Cost and expenses	242,236	278,638	(36,402)	-13%
EBITDA	411,266	420,504	(9,238)	-2%
Net income attributable to MWC	168,066	286,096	(118,030)	-41%

**Not attributable to MWC*

On a consolidated MWAP level, equity share in net income of associates decreased by 7% to 654 million, primarily due to the lower performance of Vietnam investments. This reduction was partially offset by the full year recognition of the share in net income from East Water. Cost and expenses decreased by 13% to ₱242 million, driven mainly by lower personnel and management and professional fees during the period. Consequently, EBITDA decreased by 2% to ₱411 million at the end of the period as the decrease in cost and expenses did not offset the decrease in equity share in net income. With higher interest expense in 2019, coupled with a ₱74 million recognition of impairment losses from MWAP's investment in Saigon Water due to the significant drop in share price, net income attributable to MWC stood at ₱168 million for the year, 41% lower than the previous period. In 2018, impairment of ₱65 million was already recognized for Saigon Water.

	For the periods ended December 31			
	2019	2018	Increase/ (Decrease)	%
Thu Duc Water				
Billed volume (in million cubic meters)	110.5	110.2	0.3	0%
Net income - VAS (in million VND)	108,918	105,291	3,628	3%
Net income at 49.00% contribution - PFRS (in thousand Pesos)	245,370	254,895	(9,525)	-4%
Kenh Dong Water				
Billed volume (in million cubic meters)	61.8	57.0	4.7	8%
Net income - VAS (in million VND)	59,448	74,452	(15,004)	-20%
Net income at 47.35% contribution - PFRS (in thousand Pesos)	130,908	152,656	(21,749)	-14%
Saigon Water				
Billed volume (in million cubic meters)	106.0	83.7	22.3	27%
Net income - VAS (in million VND)	(22,179)	59,023	(81,202)	-138%
Net income at 37.99% contribution - PFRS (in thousand Pesos)	(18,914)	27,469	(46,383)	-169%
East Water				
Billed volume (in million cubic meters)	382.1	316.5	65.5	21%
Net income (in million THB)	1,035	1,118	(82)	-7%
Net income at 18.72% contribution - PFRS (in thousand Pesos)	294,658	262,719	31,939	12%
PT STU				
Billed volume (in million cubic meters)	5.29	5.23	0.1	1%
Net income (in million IDR)	3,586	2,490	1,096	44%
Net income at 20% contribution - PFRS (in thousand Pesos)	1,481	1,403	78	6%
TOTAL				
Billed volume (in million cubic meters)	665.6	572.7	92.9	16%
Equity Share in Net Income of Associates (in thousand Pesos)	653,502	699,142	(45,640)	-7%

Thu Duc Water sold a total of 110.5 mcm for the period ending December 31, 2019, flat versus the previous year. Using Vietnamese Accounting Standards ("VAS"), revenues were flat at VND337 billion. Meanwhile, Thu Duc Water's cost and expenses increased 4% to VND117 billion due to higher power, maintenance and raw water costs, as wells as higher natural resource tax. As a result, EBITDA for the year decreased 1% to VND220 billion. Despite the slight decrease, lower depreciation & amortization and interest expense enabled Thu Duc Water net income to increase by 3% to VND109 billion. As Thu Duc conforms to IFRIC-12 guidelines, the PFRS-translated income of Thu Duc in peso terms, expressed as equity share in net income of associates, amounted to ₱245 million in 2019. This is equivalent to MWAP's 49% stake in Thu Duc Water.

Kenh Dong Water's billed volume increased by 8% in 2019 to 61.8 mcm from 57.0 mcm in 2018 which resulted in the increase of revenues by 12% to VND246 billion. Meanwhile, cost and expenses increased by 59% to VND115 billion due to higher power and raw water costs. This led to a decrease in EBITDA by 12% to VND131 billion. Consequently, Kenh Dong Water's net income declined to VND59 billion, 20% lower from the same period in 2018. Similar to Thu Duc Water, income from Kenh Dong Water is translated into PFRS and is reported as equity share in net income of associates in the consolidated financial statements. In peso terms, the PFRS-translated income of MWAP's 47.35% stake in Kenh Dong Water amounted to ₱131 million as of the end of 2019.

MWAP's investment in Saigon Water, a listed water holding company in Vietnam with seven (7) subsidiaries (3 bulk water, two distribution, and two service companies) and one (1) equity investment (bulk water). The

company recorded a total consolidated billed volume of 106.0 mcm in 2019, higher by 27% from the previous year due to the increase in the Cu Chi Project by 2.6 mcm and Tan Hiep 2 by 27.9 mcm. Saigon Water's revenue increased by 3% to VND494 billion due to higher revenues in some of its operating subsidiaries, notably Tan Hiep 2 but was offset by significant drop in revenue of Enviro. The cost and expenses of Saigon Water increased by 3% to VND335 million. While EBITDA managed a slight increase of 2% to VND158 billion, the impact of depreciation, financing cost, and the recognition of impairment for several of Saigon Water's investments (equivalent to ₱37 million at the MWAP level) weighed down on profitability. Moreover, in 2018, there was a one-off gain in the sale of Saigon Water's investment in Can Tho which improved the previous year's net income. As a result, Saigon Water posted a net loss of VND22 billion in 2019. The PFRS-translated loss of Manila Water's 37.99% stake in Saigon Water amounted to ₱ 18.91 million as of the end of 2019.

East Water, a water supply and environmental services company in Thailand operating for more than 20 years, registered a total of 382.08 mcm in billed volume in 2019, higher by 21% versus last year primarily due to the higher demand from the Provincial Waterworks Authority ("PWA"). The higher offtake of PWA was partially driven by the lower amount of rain. This led to an increase in revenues by 16%, but was partially offset by the discount offered to PWA under a new tariff structure. Direct costs increased driven by higher volume and electricity costs arising from the sourcing of water from a farther reservoir to augment water supply. As a result, EBITDA was about THB2 billion, almost at par versus last year. With higher depreciation expense following the completion of a project in the latter part of 2018, net income decreased by 7% to THB1 billion. On the other hand, net income contribution taken up from East Water was still higher as net income take-up in 2018 only commenced March 14. In peso terms, the income reflected in the consolidated financial statements as equity share in net income of associates amounted to ₱294.66 million as of the end of 2019, 12% higher than in 2018, equivalent to Manila Water's 18.72% stake in East Water.

PT STU's, an industrial bulk water operation in Indonesia, billed volume slightly increased in 2019 by 1% to 5.3 mcm from the 5.2 mcm in 2018. PT STU posted revenues of IDR21 billion and an EBITDA of IDR5 billion. Net income increased to about IDR4 billion, higher by 44% from the same period in 2018. Income from PT STU reported as equity share in net income of associates in the consolidated financial statements amounted to ₱1.48 million, representing a 20% stake of Manila Water.

Manila Water Total Solutions

The following discussion includes the consolidated results of Manila Water Total Solutions (MWTS), as well as the individual performance of its pipe-laying services, integrated used water services, as well as the sale of packaged water under the Healthy Family Purified Water brand.

	For the periods ended December 31			
	2019	**2018**	**Increase/ (Decrease)**	**%**
Financial Highlights (in thousand Pesos)				
Revenues	336,010	435,669	(99,660)	-23%
Cost and expenses	365,507	509,413	(143,905)	-28%
EBITDA	(29,498)	(73,744)	44,246	60%
Net Loss	(168,869)	(206,476)	37,607	18%
NI Contribution per Segment (in thousand Pesos)				
Pipelaying	30,266	62,182	(31,917)	-51%
Healthy Family	(157,246)	(227,474)	70,228	31%
Environmental Services	(20,739)	(8,368)	(12,371)	-148%
Head Office Costs	(21,149)	(32,817)	11,667	36%

On a consolidated MWTS level, revenues decreased by 23% to ₱336 million. This is mainly due to a 29% decline in bottle sales of Healthy Family, with 5.7 million bottles in 2019 versus 7.9 million bottles last year. Meanwhile, continued streamlining efforts led to lower costs and expenses, totaling ₱366 million for the period. This led to an improvement in EBITDA by 60% to about negative ₱30 million. However, with the recognition of additional impairment driven by the difference between the booked value and actual or assessed value of inventory and assets, net loss was only reduced by 18%, settling at a negative ₱169 million loss for 2019.

CONSOLIDATED BALANCE SHEET

	As of December 31 (in thousand Pesos)			
	2019	2018	**Increase/ (Decrease)**	**%**
Assets	**134,601,640**	122,533,317	12,068,323	10%
Service Concession Assets - net	***93,519,143***	*82,529,566*	*10,989,577*	*13%*
Liabilities	**78,610,432**	68,912,224	9,698,208	14%
Equity	**55,991,208**	53,621,093	2,370,115	4%

Ratios		
Net Bank Debt to Equity	0.86x	0.81x
DSCR	1.48x	3.03x
ROE	10%	13%

Total assets as of end 2019 stood at ₱134.6 billion, an increase of 10% against last year driven by the 13% increase in service concession assets to ₱93.5 billion from ₱82.5 billion. The Group balance sheet remains compliant with loan covenants, with key ratios maintained well within set tolerances.

Total bank debt end of period increased to ₱56,356 million from ₱51,647 million in December 2018. Net bank debt to equity was at 0.86x on account of the new loans of the Company in 2019, as well as the drawdowns of the Company and its subsidiaries on existing facilities. Meanwhile, Debt Service Coverage Ratio (DSCR) stood at 1.48x. Average Cost of Debt for the Group was held steady at 4.5%, while the Return-on-Equity stood at 10%.

Under the Company's dividend policy, common shares are entitled to annual cash dividends equivalent to 35% of the prior year's net income, payable semi-annually. As of December 31, 2019, the Company declared cash dividends at ₱0.9102 per common share and ₱0.09102 per preferred share. Total dividend payment amounted to ₱2.24 billion for the year.

CONSOLIDATED CAPITAL EXPENDITURES

The Group ended 2019 with total capital expenditures of ₱12,636 million, with 78% of said amount accounted for by the Manila Concession. Majority of the Manila Concession capital expenditures were spent on wastewater expansion, network reliability and water supply projects in line with attaining service obligations outlined in its government-approved Rate Rebasing service improvement plan, while the balance was accounted for by concession fees paid to MWSS.

Meanwhile, total capital expenditures of the domestic subsidiaries amounted to ₱2,729 million. Of the total amount, ₱529 million was undertaken by Laguna Water for its water network expansion, while Boracay Water disbursed ₱376 million. Estate Water spent ₱1,235 million for its greenfield and brownfield projects, with the balance being taken on by the remaining subsidiaries for its various projects.

RECENT MATERIAL TRANSACTIONS

On January 31, 2020, the Board of Directors approved in a special meeting the amendments to the Seventh Article of the Company's Articles of Incorporation. The amendments are as follows, (1) to increase the authorized capital stock from ₱3.5 billion to ₱4.4 billion, which increase will consist of an additional 900 million common shares; (2) to increase the Carved-Out Shares from 300 million unissued common shares to 900 million unissued common shares allocated for issuance in one or more transactions or offerings for cash, properties, or assets to carry out the Company's corporate purposes as approved by the Board of

Directors; and (3) to allow the issuance of the Carved-Out Shares "for cash, properties, or assets to carry out" the corporate purposes of the Company as approved by the Board of Directors. Carved-Out Shares are common shares which are waived of shareholders' pre-emptive rights and are earmarked for specific corporate purposes. The Board of Directors likewise approved a minimum selling price of ₱10 per share for issuance of common shares in the event the company decides to issue common shares.

On February 1, 2020, the Company signed a subscription agreement with Prime Metroline Holdings, Inc. ("PMHI"), (which is acting on behalf of a company to be incorporated). The subscription agreement was for the acquisition of 820 million common shares, which represents 25% stake in Manila Water, at ₱13 per share or estimated total proceeds of ₱10.7 billion in equity. The transaction is subject to usual conditions precedent with both Manila Water and Trident Water securing the necessary regulatory and third-party approvals to reach financial close.

On February 6, 2020, Ayala Corporation, as part of the shareholder agreement to be executed among itself, its wholly owned subsidiary Philwater Holdings Company (PhilWater) and Trident Water, Ayala's Executive Committee approved the grant of proxy rights by Philwater to Trident Water over such number of preferred shares to enable the latter to achieve 51% voting interest in Manila Water. Philwater owns 4,000,000,000 of preferred shares in Manila Water, representing 65.95% of voting shares in the Company. Upon the grant of proxy rights to Trident Water, Ayala's effective voting interest in Manila Water will stand at 31.6%. This arrangement aims to strategically rationalize the economic and voting stakes between Ayala and Trident Water as strategic partners in Manila Water.

Lastly, on February 7, 2020, PMHI as part of its compliance with SEC's Rules, announced its intent to conduct a mandatory tender offer for common shares of stock of Manila Water. Said tender offer will cover all outstanding common shares of Manila Water which are held by the public or the minority shareholders of the Company. The offer price for the tender offer was set at ₱13 per share.

Report of the Audit Committee to the Board of Directors

For the year ended December 31, 2019

The Audit Committee's roles, responsibilities and authority are defined in the Audit Committee Charter approved by the Board of Directors. The Committee provides assistance to the Board of Directors in fulfilling their oversight responsibility to the shareholders relating to the:

a) integrity of the Manila Water Company, Inc.'s ("Company's") financial statements and the financial reporting process;
b) appointment, remuneration, independence and performance of internal audit and of the independent auditors, and integrity of the audit process;
c) effectiveness of the systems of internal controls and enterprise risk management process;
d) compliance with applicable legal and regulatory requirements and other reporting standards;
e) performance and leadership of the internal control function;
f) preparation of a year-end report of the Committee for approval of the Board and to be included in the annual report.

In compliance with the Audit Committee Charter, the Committee confirms that:

- An independent director chairs the Audit Committee. The Committee has three out of four members who are independent directors;
- The Committee had five meetings during the year with the following attendance rate:

Directors	No. of Meetings Attended/Held	Percent Present
Oscar S. Reyes	5/5	100%
Jose L. Cuisia, Jr.	5/5	100%
Jaime C. Laya	5/5	100%
Gerardo C. Ablaza, Jr.	4/5	80%

- The Committee reviewed and approved the quarterly unaudited consolidated financial statements and the annual Audited Consolidated Financial Statements of Manila Water Company, Inc. and subsidiaries, including Management's Discussion and Analysis of Financial Condition and Results of Operations as of and for the year ended December 31, 2019, with the Company's Management, internal auditors, and SGV & Co. These activities were conducted in the following context:

  - Management has the primary responsibility for the financial statements and the reporting process
  - SGV & Co. is responsible for expressing an opinion on the conformity of the Company's audited consolidated financial statements with the Philippine Financial Reporting Standards.

- The Committee reviewed and approved the Management representation letter before submission to the Company's independent external auditors.

- The Committee recommended to the Board of Directors the re-appointment of SGV & Co. as independent external auditors for 2019 based on its review of SGV's performance and qualifications, including consideration of Management's recommendation.

- The Committee reviewed and approved all audit and audit-related services provided by SGV & Co. to the Company and the related fees for such services.

- The Committee discussed and approved the overall scope and the respective audit plans of the Company's internal auditors and of SGV & Co., the results of their audits and their assessment of the Company's internal controls, and the overall quality of the financial reporting process.

- The Committee discussed the reports of the internal auditors, and ensured that Management is taking appropriate actions in a timely manner, including addressing internal control and compliance issues. All the activities performed by Internal Audit were conducted in conformance with the International Standards for the Professional Practice of Internal Auditing.

- The Audit Committee, through the audits conducted by SGV & Company and Internal Audit, has reviewed Management's system of internal controls and the Committee found the internal control system to be adequate and effective.

- The Committee discussed with Management the adequacy and effectiveness of the Enterprise Risk Management process, including significant risk exposures, the related risk-mitigation efforts and initiatives, and the status of the mitigation plans. The review was undertaken in the context that Management is primarily responsible for the risk management process.

- The Committee reviewed and confirmed that the existing Audit and Internal Audit Charters are sufficient to accomplish the Committee's and Internal Audit's objectives. The Audit Committee Charter is in compliance with the Securities and Exchange Commission Memo Circular No. 04 (2012).

- The Committee conducted a self-assessment of its performance to confirm that the Committee continues to meet the expectations of the Board, Management and shareholders.

Based on the reviews and discussions undertaken, and subject to the limitations on our roles and responsibilities referred to above, the Audit Committee recommended to the Board of Directors the inclusion of the Company's audited consolidated financial statements in the Company's Annual Report to the Stockholders for the year ended December 31, 2019 and the filing thereof with the Securities and Exchange Commission.

February 17, 2020

OSCAR S. REYES
Chairman, Audit Committee

JOSE L. CUISIA, JR.
Independent Director

JAIME C. LAYA
Independent Director

GERARDO C. ABLAZA, JR
Member

Statement of Management's Responsibility for Financial Statements

The management of Manila Water Company, Inc. (the "Company") and its subsidiaries (the "Group") is responsible for the preparation and fair presentation of the consolidated financial statements including the schedules attached therein, as of December 31, 2019 and 2018 and for the years ended December 31, 2019, 2018, and 2017, in accordance with the prescribed financial reporting framework indicated therein, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or its subsidiaries, or to cease operations, or has no realistic alternative but to do so.

The Board of Directors is responsible for overseeing the Group's financial reporting process.

The Board of Directors reviews and approves the consolidated financial statements including the schedules attached therein, and submits the same to the stockholders or members.

SyCip Gorres Velayo & Co., the independent auditors appointed by the stockholders, has audited the consolidated financial statements of the Group in accordance with Philippine Standards on Auditing, and in its report to the stockholders or members, has expressed its opinion on the fairness of presentation upon completion of such audit.

FERNANDO ZOBEL DE AYALA
Chairman of the Board

JOSE RENE GREGORY D. ALMENDRAS
President and Chief Executive Officer

MA. CECILIA T. CRUZABRA
Chief Finance Officer and Treasurer

SGV
Building a better working world

SyCip Gorres Velayo & Co.
6760 Ayala Avenue
1226 Makati City
Philippines

Tel: (632) 891 0307
Fax: (632) 819 0872
ey.com/ph

BOA/PRC Reg. No. 0001,
October 4, 2018, valid until August 24, 2021
SEC Accreditation No. 0012-FR-5 (Group A),
November 6, 2018, valid until November 5, 2021

INDEPENDENT AUDITOR'S REPORT

The Board of Directors and Stockholders
Manila Water Company, Inc.
MWSS Administration Building, 489 Katipunan Road
Balara, Quezon City

Opinion

We have audited the consolidated financial statements of Manila Water Company, Inc. (the Parent Company) and its subsidiaries (collectively referred to as "the Group"), which comprise the consolidated statements of financial position as at December 31, 2019 and 2018, and the consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for each of the three years in the period ended December 31, 2019, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at December 31, 2019 and 2018, and its consolidated financial performance and its consolidated cash flows for each of the three years in the period ended December 31, 2019 in accordance with Philippine Financial Reporting Standards (PFRSs).

Basis for Opinion

We conducted our audits in accordance with Philippine Standards on Auditing (PSAs). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report. We are independent of the Group in accordance with the Code of Ethics for Professional Accountants in the Philippines (Code of Ethics) together with the ethical requirements that are relevant to our audit of the consolidated financial statements in the Philippines, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the Code of Ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying consolidated financial statements.

Revenue recognition for Manila Concession (East Zone)

The Group's revenue from the East Zone accounts for 83% of total consolidated revenue and the revenue recognition process therein requires processing of data from a large number of customers classified as either residential, commercial, semi-business, or industrial. The amounts billed to customers consist of a number of components, including basic charge, environmental charge and foreign currency differential adjustment and where applicable, sewer charge. These tariffs depend on the customer type and are determined based on a formula as prescribed by the Metropolitan Waterworks and Sewerage System Regulatory Office (MWSS RO). This matter is significant to our audit because the revenue recognized depends on the completeness of capture of water consumption based on the meter readings over the concession area taken on various dates; the propriety of rates applied across customer types; and the reliability of the systems involved in processing the billing transactions.

Relevant disclosures related to this matter are provided in Notes 1, 2, 3 and 6 to the consolidated financial statements.

Audit response

We obtained an understanding, evaluated the design and tested the controls over the read and bill process, which includes the capture of water consumption and calculation of billed fees, downloading of data from the billing system and uploading of data to the Parent Company's financial reporting system. We involved our internal specialist in the testing of the related controls over these processes. We performed test calculation of the billed amounts using the volume of water consumption and MWSS RO-approved rates and compared them with the amounts reflected in the billing statement. We also evaluated the disclosures made in the consolidated financial statements.

Provision and contingencies

The Group is involved in legal proceedings and assessments for local and national taxes and for alleged non-compliance with laws and regulations. This matter is significant to our audit because the estimation of the potential liability resulting from these legal proceedings and assessments require significant judgment by management. The inherent uncertainty over the outcome of these tax and legal matters is brought about by the differences in the interpretation and implementation of the relevant laws and tax regulations and/or rulings.

The Group's disclosure about provisions and contingencies are included in Notes 1 and 29 to the consolidated financial statements.

Audit response

Our audit procedures include the involvement of our internal specialists in reviewing the status of these legal proceedings and assessments, and the legal and tax positions of the Group based on the merits of the arguments against the assessments, previous court decisions, implementing rules and opinions issued by relevant government and regulatory agencies. In addition, we performed a calculation of the amount of the provisions and compared this with the outstanding provisions as of year-end. We also evaluated the disclosures made in the consolidated financial statements.

Amortization of service concession assets using the units-of-production (UOP) method

The service concession assets (SCA) of the Group is related to its concession agreements. The Group UOP method in amortizing its SCA based on the actual billed volume over the estimated billable water volume for the remaining period of the concession agreement. The UOP amortization method is a key audit matter as the method involves significant management judgment and estimates, particularly in determining the total estimated billable water volume over the remaining periods of the concession agreements. It considers different factors such as population growth, supply and consumption, and service coverage, including ongoing and future expansions.

Refer to Note 3 to the consolidated financial statements for the relevant disclosures related to this matter.

Audit response

We obtained an understanding of management's processes and controls in the estimation of billable water volume. We evaluated the competence, capabilities, and objectivity of management's specialist who estimated the total billable water volume. We also reviewed the report of the management's specialist and gained an understanding of the methodology and the basis of computing the forecasted volumes. Furthermore, we compared the estimated billable water volume for the year against the actual data generated from the billing system. We recalculated the amortization expense for the year based on the actual billed water volume.

Impairment testing of service concession assets and property and equipment

As discussed in Note 3, the Parent Company's market capitalization as of December 31, 2019 significantly declined compared to its net book value, which decline was triggered by, among others, the ongoing discussion with the Metropolitan Waterworks and Sewerage System on the provisions of the Concession Agreement identified for renegotiation and amendment. This is an impairment indicator that requires an assessment of the recoverability of the Parent Company's non-financial assets, particularly its service concession assets and property and equipment with carrying amounts of ₱81,052.26 million and ₱925.11 million, respectively, as of December 31, 2019. The determination of the recoverable amounts of these assets requires the use of significant judgment, estimates, and assumptions. The valuation of these assets using fair value less cost to sell requires the assistance of an external appraiser whose calculations also depend on certain assumptions such as recent sales, offering prices or listing of comparable properties registered within the vicinity of the subject assets, adjustments to sales prices based on internal and external factors, and deductions for physical deterioration and all other relevant forms of obsolescence.

The disclosures in relation to the above matters are included in Notes 1 and 3 to the consolidated financial statements.

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Audit response

We involved our internal specialist in evaluating the methodology and assumptions used in the valuation of the service concession assets and property and equipment. For the market approach, the assumptions used include information supporting the comparability of the subject assets with identical or similar properties for which information is available, measures of value of comparable properties and adjustments made to the value of the comparable properties. We made inquiries with the management's specialist who appraised the assets about the methodology and assumptions used in the valuation of the subject assets and we evaluated the specialist's competence, capabilities, and objectivity by considering its qualifications, experience and reporting responsibilities.

Other Information

Management is responsible for the other information. The other information comprises the information included in the SEC Form 20-IS (Definitive Information Statement), SEC Form 17-A and Annual Report for the year ended December 31, 2019, but does not include the consolidated financial statements and our auditor's report thereon. The SEC Form 20-IS (Definitive Information Statement), SEC Form 17-A and Annual Report for the year ended December 31, 2019 are expected to be made available to us after the date of this auditor's report.

Our opinion on the consolidated financial statements does not cover the other information and we will not express any form of assurance conclusion thereon.

In connection with our audits of the consolidated financial statements, our responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audits, or otherwise appears to be materially misstated.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with PFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with PSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with PSAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

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- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report, unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Djole S. Garcia.

SYCIP GORRES VELAYO & CO.

Djole S. Garcia

Djole S. Garcia
Partner
CPA Certificate No. 0097907
SEC Accreditation No. 1768-A (Group A),
September 3, 2019, valid until September 2, 2022
Tax Identification No. 201-960-347
BIR Accreditation No. 08-001998-102-2018,
October 18, 2018, valid until October 17, 2021
PTR No. 8125240, January 7, 2020, Makati City

February 20, 2020

Manila Water Company, Inc. and Subsidiaries

Consolidated Statements of Financial Position

	December 31	
	2019	2018
ASSETS		
Current Assets		
Cash and cash equivalents (Notes 5, 21 and 26)	**₱8,958,243,402**	₱9,390,591,273
Short-term investments (Notes 5 and 26)	**109,268,451**	–
Receivables (Notes 6, 21 and 26)	**2,451,469,890**	1,955,232,694
Concession financial receivables - current portion (Notes 10, 25, 26 and 27)	**238,982,837**	193,706,165
Contract assets - current portion (Notes 6, 10 and 26)	**623,436,833**	398,447,879
Inventories (Note 7)	**342,439,831**	205,923,232
Other current assets (Note 8)	**1,681,772,922**	1,304,639,661
Total Current Assets	**14,405,614,166**	13,448,540,904
Noncurrent Assets		
Property, plant and equipment (Notes 9 and 21)	**4,668,653,065**	3,508,214,865
Service concession assets - net (Notes 10, 21 and 22)	**93,519,142,986**	82,529,565,838
Right-of-use assets (Notes 2 and 28)	**295,674,609**	–
Concession financial receivables - net of current portion (Notes 10, 25, 26 and 27)	**815,555,501**	853,335,377
Contract assets - net of current portion (Notes 6, 10 and 26)	**799,948,683**	492,942,902
Investments in associates (Note 11)	**15,519,807,966**	15,994,949,046
Goodwill (Note 4)	**136,566,475**	136,566,475
Deferred tax assets - net (Note 18)	**1,188,807,057**	1,363,604,153
Other noncurrent assets (Notes 12, 26 and 27)	**3,251,869,877**	4,205,597,344
Total Noncurrent Assets	**120,196,026,219**	109,084,776,000
Total Assets	**₱134,601,640,385**	₱122,533,316,904
LIABILITIES AND EQUITY		
Current Liabilities		
Accounts and other payables (Notes 13, 21 and 26)	**₱9,793,241,110**	₱7,291,282,562
Short-term debt (Notes 14, 25 and 26)	**–**	8,596,538,853
Current portion of:		
Long-term debt (Notes 14, 21, 25 and 26)	**10,485,712,955**	5,525,372,414
Service concession obligations (Notes 10, 22, 25, 26 and 27)	**1,014,243,947**	809,405,231
Lease liabilities (Notes 2, 26 and 28)	**53,551,801**	–
Contract liabilities (Note 13)	**267,024,407**	17,891,680
Income tax payable (Note 18)	**308,404,354**	467,887,912
Total Current Liabilities	**21,922,178,574**	22,708,378,652
Noncurrent Liabilities		
Noncurrent portion of:		
Long-term debt (Notes 14, 21, 25 and 26)	**45,870,095,177**	37,525,555,157
Service concession obligations (Notes 10, 22, 25, 26 and 27)	**8,139,577,739**	7,119,121,473
Lease liabilities (Notes 2, 26 and 28)	**254,930,352**	–
Contract liabilities (Note 13)	**78,619,821**	–
Pension liabilities - net (Note 15)	**194,194,277**	109,391,800
Deferred tax liabilities - net (Note 18)	**137,147,476**	103,104,628
Provisions (Note 29)	**1,181,880,554**	569,893,356
Other noncurrent liabilities (Notes 16, 25, 26 and 27)	**831,808,630**	776,778,646
Total Noncurrent Liabilities	**56,688,254,026**	46,203,845,060
Total Liabilities	**78,610,432,600**	68,912,223,712

(Forward)

	December 31	
	2019	2018
Equity		
Attributable to common equity holders of Manila Water Company, Inc.		
Capital stock (Note 19):		
Common stock	**₱2,064,839,617**	₱2,064,839,617
Preferred stock	**400,000,000**	400,000,000
	2,464,839,617	2,464,839,617
Additional paid-in capital	**4,589,951,153**	4,518,048,369
Subscriptions receivable	**(371,306,653)**	(458,453,326)
Total paid-up capital	**6,683,484,117**	6,524,434,660
Common stock options outstanding (Note 19)	**–**	51,742,998
Retained earnings (Note 19):		
Appropriated	**35,495,000,000**	32,444,000,000
Unappropriated	**12,253,696,821**	12,052,604,642
Remeasurement loss on defined benefit plans (Note 15)	**(136,681,573)**	(57,483,208)
Other equity reserves (Notes 1 and 19)	**54,106,905**	54,106,905
Equity share in other comprehensive loss of associates (Note 11)	**(1,345,944)**	–
Cumulative translation adjustment (Notes 2 and 11)	**366,475,761**	1,420,590,161
	54,714,736,087	52,489,996,158
Noncontrolling interests (Notes 2 and 19)	**1,276,471,698**	1,131,097,034
Total Equity	**55,991,207,785**	53,621,093,192
	₱134,601,640,385	₱122,533,316,904

See accompanying Notes to Consolidated Financial Statements.

Manila Water Company, Inc. and Subsidiaries

Consolidated Statements of Comprehensive Income

	Years Ended December 31		
	2019	2018	2017
REVENUE FROM CONTRACTS WITH CUSTOMERS			
Water and sewer revenues (Notes 21 and 24)	**₱20,087,313,392**	₱18,471,570,264	₱17,205,920,492
Other operating income (Notes 17, 21 and 24)	**1,862,456,666**	1,364,722,038	1,309,851,738
	21,949,770,058	19,836,292,302	18,515,772,230
COST OF SERVICES			
Depreciation and amortization (Notes 9, 10 and 28)	**2,578,848,902**	2,208,750,431	2,206,053,556
Power, light and water (Note 21)	**1,502,951,439**	1,319,150,756	1,183,196,711
Salaries, wages and employee benefits (Notes 15, 19 and 21)	**1,185,990,985**	1,083,008,341	1,063,651,691
Repairs and maintenance	**669,843,389**	375,657,094	379,544,022
Contractual services	**483,216,106**	291,298,802	316,447,411
Water treatment chemicals	**416,984,442**	235,095,937	107,109,226
Regulatory costs (Note 1)	**244,674,063**	215,435,898	191,815,032
Wastewater costs	**229,382,516**	199,369,725	162,923,138
Management, technical and professional fees (Note 21)	**188,107,211**	254,675,568	285,635,648
Water tankering and bulk water costs	**168,257,988**	64,996,030	26,567,490
Collection fees	**128,597,356**	138,568,031	110,573,321
Amortization of water service connections	**109,596,146**	178,663,181	190,849,340
Cost of packaged water (Note 7)	**90,276,404**	127,895,192	111,340,926
Occupancy costs (Notes 23 and 28)	**41,171,891**	35,989,179	43,488,003
Other expenses	**264,028,036**	207,642,468	195,865,991
	8,301,926,874	6,936,196,633	6,575,061,506
GROSS PROFIT	**13,647,843,184**	12,900,095,669	11,940,710,724
OPERATING EXPENSES (Notes 17 and 21)	**4,521,630,928**	3,795,561,313	3,342,316,747
INCOME BEFORE OTHER INCOME (EXPENSES)	**9,126,212,256**	9,104,534,356	8,598,393,977
OTHER INCOME (EXPENSES)			
Revenue from rehabilitation works (Notes 1, 2, 6 and 10)	**10,852,911,195**	9,661,976,629	11,672,137,031
Cost of rehabilitation works (Notes 1, 2, 6 and 10)	**(10,852,911,195)**	(9,661,976,629)	(11,672,137,031)
Interest expense (Notes 14, 17 and 28)	**(2,074,708,957)**	(1,783,808,602)	(1,403,236,110)
Equity share in net income of associates (Note 11)	**653,502,170**	699,142,026	457,208,214
Interest income (Note 17)	**404,656,166**	411,883,015	345,737,796
Gain (loss) on disposal of property and equipment - net	**(81,318,612)**	18,643,022	15,999,530
Amortization of deferred credits (Note 16)	**14,030,922**	12,535,602	11,142,247
Foreign currency differentials (Note 1)	**(607,263,374)**	1,787,217,975	152,454,045
Foreign exchange gains (losses)	**602,623,526**	(1,753,929,481)	(150,895,347)
Other income (loss) (Notes 4, 9, 11 and 17)	**(23,640,608)**	115,172,172	55,071,907
	(1,112,118,767)	(493,144,271)	(516,517,718)
INCOME BEFORE INCOME TAX	**8,014,093,489**	8,611,390,085	8,081,876,259
PROVISION FOR INCOME TAX (Note 18)	**2,374,668,112**	1,976,357,294	1,941,928,572
NET INCOME	**5,639,425,377**	6,635,032,791	6,139,947,687
OTHER COMPREHENSIVE INCOME (LOSS)			
Other comprehensive income (loss) to be reclassified to profit or loss in subsequent periods:			
Cumulative translation adjustment (Note 11)	**(1,054,114,400)**	524,679,679	108,488,162
Other comprehensive income (loss) not to be reclassified to profit or loss in subsequent periods:			
Actuarial loss on pension liabilities - net (Note 15)	**(79,198,365)**	(55,044,900)	(57,131,400)
Income tax effect (Note 18)	**933,010**	(4,159,906)	815,960
	(78,265,355)	(59,204,806)	(56,315,440)
Equity share in other comprehensive loss of associates	**(1,345,944)**	–	–
TOTAL COMPREHENSIVE INCOME	**₱4,505,699,678**	₱7,100,507,664	₱6,192,120,409
Net income (loss) attributable to:			
Common equity holders of Manila Water Company, Inc.	**₱5,495,509,199**	₱6,523,700,728	₱6,146,608,317
Noncontrolling interests (Note 1)	**143,916,178**	111,332,063	(6,660,630)
	₱5,639,425,377	₱6,635,032,791	₱6,139,947,687
Total comprehensive income attributable to:			
Common equity holders of Manila Water Company, Inc.	**₱4,360,850,490**	₱6,987,645,548	₱6,197,535,437
Noncontrolling interests (Note 1)	**144,849,188**	112,862,116	(5,415,028)
	₱4,505,699,678	₱7,100,507,664	₱6,192,120,409
Earnings per Share (Note 20)			
Net income attributable to common equity holders of Manila Water Company, Inc.:			
Basic	**₱2.21**	₱2.64	₱2.49
Diluted	**₱2.21**	₱2.64	₱2.49

See accompanying Notes to Consolidated Financial Statements.

Manila Water Company, Inc. and Subsidiaries

Consolidated Statements of Changes in Equity

	Years Ended December 31		
	2019	2018	2017
ATTRIBUTABLE TO COMMON EQUITY HOLDERS OF MANILA WATER COMPANY, INC.			
CAPITAL STOCK (Note 19)			
Common stock - ₱1 par value			
Authorized - 3,100,000,000 shares			
Issued and outstanding - 2,041,447,232 shares in 2019, 2,030,732,360 shares in 2018, and 2,026,067,122 shares in 2017	**₱2,041,447,232**	₱2,030,732,360	₱2,026,067,122
Subscribed common stock - 23,392,385 in shares 2019, 34,107,257 shares in 2018, and 27,599,454 shares in 2017			
Balance at beginning of year	**34,107,257**	27,599,454	28,732,486
Additions	**–**	10,893,733	–
Issuance of shares	**(10,714,872)**	(4,385,930)	(1,133,032)
Balance at end of year	**23,392,385**	34,107,257	27,599,454
	2,064,839,617	2,064,839,617	2,053,666,576
Preferred stock - ₱0.10 par value, 10% cumulative, voting participating, nonredeemable and nonconvertible			
Authorized, issued, and outstanding - 4,000,000,000 shares	**400,000,000**	400,000,000	400,000,000
	2,464,839,617	2,464,839,617	2,453,666,576
ADDITIONAL PAID-IN CAPITAL (Note 19)			
Balance at beginning of year	**4,518,048,369**	4,230,508,417	4,221,712,962
Additions	**71,902,784**	287,539,952	8,795,455
Balance at end of year	**4,589,951,153**	4,518,048,369	4,230,508,417
SUBSCRIPTIONS RECEIVABLE (Note 19)			
Balance at beginning of year	**(458,453,326)**	(235,693,873)	(319,227,328)
Additions	**–**	(297,787,156)	–
Collections	**87,146,673**	75,027,703	83,533,455
Balance at end of year	**(371,306,653)**	(458,453,326)	(235,693,873)
COMMON STOCK OPTIONS OUTSTANDING (Note 19)			
Balance at beginning of year	**51,742,998**	28,700,622	25,325,260
Cost of share-based payment	**20,159,786**	23,968,213	12,170,817
Exercised/expiration	**(71,902,784)**	(925,837)	(8,795,455)
Balance at end of year	**–**	51,742,998	28,700,622
RETAINED EARNINGS (Note 19)			
Appropriated:			
Balance at beginning of year	**32,444,000,000**	28,698,000,000	21,100,000,000
Appropriations	**3,051,000,000**	3,746,000,000	7,598,000,000
Balance at end of year	**35,495,000,000**	32,444,000,000	28,698,000,000
Unappropriated:			
Balance at beginning of year	**12,052,604,642**	11,426,282,242	15,000,583,191
Net income	**5,495,509,199**	6,523,700,728	6,146,608,317
Appropriations	**(3,051,000,000)**	(3,746,000,000)	(7,598,000,000)
Dividends declared	**(2,243,417,020)**	(2,151,378,328)	(2,122,909,266)
Balance at end of year	**12,253,696,821**	12,052,604,642	11,426,282,242
	47,748,696,821	44,496,604,642	40,124,282,242
REMEASUREMENT GAIN (LOSS) ON DEFINED BENEFIT PLANS (Note 15)			
Balance at beginning of year	**(57,483,208)**	3,251,651	60,812,693
Actuarial loss on pension liabilities - net	**(84,315,895)**	(64,239,028)	(58,467,800)
Income tax effect	**5,117,530**	3,504,169	906,758
Balance at end of year	**(136,681,573)**	(57,483,208)	3,251,651

(Forward)

	Years Ended December 31		
	2019	2018	2017
OTHER EQUITY RESERVES (Notes 1 and 19)	**₱54,106,905**	₱54,106,905	₱54,106,905
EQUITY SHARE IN OTHER COMPREHENSIVE LOSS OF AN ASSOCIATE (Note 11)			
Balance at beginning of year	**–**	–	–
Other comprehensive loss	**(1,345,944)**	–	–
Balance at end of year	**(1,345,944)**	–	–
CUMULATIVE TRANSLATION ADJUSTMENT (Notes 2 and 11)			
Balance at beginning of year	**1,420,590,161**	895,910,482	787,422,320
Other comprehensive income (loss)	**(1,054,114,400)**	524,679,679	108,488,162
Balance at end of year	**366,475,761**	1,420,590,161	895,910,482
NONCONTROLLING INTERESTS (Notes 1, 2 and 19)			
Balance at beginning of year	**1,131,097,034**	1,005,964,401	997,284,976
Additions	**11,612,500**	12,270,517	14,094,453
Remeasurement gain on defined benefit plans - net of income tax effect	**933,010**	1,530,053	1,245,602
Dividends paid to noncontrolling interests	**(11,087,024)**	–	–
Share in net income (loss)	**143,916,178**	111,332,063	(6,660,630)
Balance at end of year	**1,276,471,698**	1,131,097,034	1,005,964,401
	₱55,991,207,785	₱53,621,093,192	₱48,560,697,423

See accompanying Notes to Consolidated Financial Statements.

Manila Water Company, Inc. and Subsidiaries

Consolidated Statements of Cash Flows

	Years Ended December 31		
	2019	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES			
Income before income tax	**₱8,014,093,489**	₱8,611,390,085	₱8,081,876,259
Adjustments for:			
Depreciation and amortization (Notes 9, 10 and 28)	**2,993,762,626**	2,655,669,800	2,556,998,878
Interest expense (Notes 14, 17 and 28)	**2,074,708,957**	1,783,808,602	1,403,236,110
Provision for probable losses and impairment losses (Notes 9, 10 and 11)	**686,312,455**	136,835,943	–
Equity share in net income of associates (Note 11)	**(653,502,170)**	(699,142,026)	(457,208,214)
MWSS penalty (Note 1)	**534,050,130**	–	–
Interest income (Note 17)	**(404,656,166)**	(411,883,015)	(345,737,796)
Loss (gain) on disposal of property and equipment - net	**81,318,612**	(18,643,022)	(15,999,530)
Share-based payments (Note 19)	**20,159,786**	23,968,213	12,170,817
Gain on bargain purchase (Note 4)	**(18,332,330)**	(43,753,620)	(54,907,714)
Amortization of deferred credits (Note 16)	**(14,030,922)**	(12,535,602)	(11,142,247)
Pension expense, contribution and benefit payment - net (Note 15)	**4,273,378**	29,257,110	59,730,460
Operating income before changes in operating assets and liabilities	**13,318,157,845**	12,054,972,468	11,229,017,023
Changes in operating assets and liabilities:			
Decrease (increase) in:			
Receivables	**(982,813,074)**	(99,349,092)	332,923,442
Contract assets	**(479,095,832)**	(377,538,722)	–
Inventories	**(136,516,599)**	4,826,337	(44,179,799)
Service concession assets	**(10,358,571,906)**	(7,127,729,094)	(10,692,179,117)
Concession financial receivable	**83,817,840**	197,043,608	2,357,501
Other current assets	**(512,574,065)**	(197,212,618)	181,652,388
Increase in:			
Accounts and other payables	**1,503,447,883**	768,639,796	915,374,397
Contract liabilities	**327,752,548**	17,891,680	–
Cash generated from operations	**2,763,604,640**	5,241,544,363	1,924,965,835
Income tax paid	**(2,214,342,326)**	(1,943,955,666)	(2,082,541,702)
Net cash provided by (used in) operating activities	**549,262,314**	3,297,588,697	(157,575,867)
CASH FLOWS FROM INVESTING ACTIVITIES			
Acquisitions of:			
Investments in associates (Notes 1 and 11)	**–**	(8,871,042,180)	(229,156,421)
Property, plant and equipment (Note 9)	**(1,423,671,831)**	(1,353,557,438)	(1,299,299,740)
Dividends received from associates (Note 11)	**335,946,893**	413,819,111	185,044,328
Interest received	**269,885,916**	275,902,629	150,589,335
Consideration paid for business combination (Note 4)	**(45,133,895)**	(45,133,895)	(74,244,286)
Proceeds from sale of property and equipment	**18,320,081**	21,160,944	3,183,205
Short-term investments (Note 5)	**(109,268,451)**	–	–
Decrease (increase) in other noncurrent assets (Note 12)	**261,438,849**	699,841,343	(1,107,195,937)
Net cash used in investing activities	**(692,482,438)**	(8,859,009,486)	(2,371,079,516)
CASH FLOWS FROM FINANCING ACTIVITIES			
Proceeds from availments of (Note 14):			
Short-term debt	**–**	8,864,235,143	–
Long-term debt	**19,323,745,347**	6,843,198,491	15,428,965,322
Payments of:			
Short-term debt (Note 14)	**(8,694,693,078)**	–	–
Long-term debt (Note 14)	**(5,816,139,793)**	(5,208,266,498)	(3,579,761,563)
Service concession obligation (Note 10)	**(838,285,843)**	(955,119,919)	(778,818,684)
Principal portion of lease liabilities (Note 28)	**(81,027,797)**	–	–
Dividends to equity holders of the Parent Company (Note 19)	**(2,243,417,020)**	(2,151,378,328)	(2,122,909,266)
Dividends to noncontrolling interests	**(11,087,024)**	–	–
Interest	**(2,082,011,707)**	(1,641,493,122)	(1,557,039,464)
Collection of subscriptions receivable (Note 19)	**87,146,673**	75,027,703	83,533,455
Increase (decrease) in other noncurrent liabilities	**55,029,993**	92,793,986	(4,364,903)
Additions to noncontrolling interests (Note 1)	**11,612,500**	12,270,517	14,094,453
Net cash provided by (used in) financing activities	**(289,127,747)**	5,931,267,973	7,483,699,350
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	**(432,347,871)**	369,847,184	4,955,043,967
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	**9,390,591,273**	9,020,744,089	4,065,700,122
CASH AND CASH EQUIVALENTS AT END OF YEAR (Note 5)	**₱8,958,243,402**	₱9,390,591,273	₱9,020,744,089

See accompanying Notes to Consolidated Financial Statements.

Manila Water Company, Inc. and Subsidiaries

Notes to Consolidated Financial Statements

1. **Corporate Information**

Manila Water Company, Inc. (the "Parent Company") was incorporated on January 6, 1997. The Parent Company started commercial operations on January 1, 2000. It became a publicly listed company via an initial public offering on March 18, 2005. As of December 31, 2019, the Parent Company is 51.40% owned by Ayala Corporation (Ayala). Ayala is a publicly listed company which is 47.33% owned by Mermac, Inc. and the rest by the public. The Parent Company and its subsidiaries (collectively referred to as the "Group") are incorporated to provide water, integrated used water, sewerage and sanitation, distribution services, pipeworks, engineering, procurement and management services.

Parent Company Amendment of Articles of Incorporation
On March 1, 2018, the Board of Directors (BOD) approved the following:

a. amendment of the Parent Company's Articles of Incorporation to exclude the 300.00 million common shares from the pre-emptive rights of existing stockholders, and endorsed the said amendment for approval by the stockholders; and
b. allotment and subsequent issuance of up to 300.00 million common shares for the purpose of exchanging such shares for assets and/or raising funds to acquire assets needed for the business of the Parent Company.

On April 16, 2018, the stockholders of the Parent Company approved the amendment of the Seventh Article of the Articles of Incorporation to exempt from pre-emptive rights 300.00 million unissued common shares ("carved-out shares") which are reserved or allocated for issuance in one or more transactions or offerings, (i) for properties or assets needed for the business of the Parent Company, or (ii) for cash to acquire properties or assets needed for the business of the Parent Company. The issuance of all or any of the carved-out shares does not require the approval of stockholders.

On February 26, 2019, the BOD approved the amendment of the Second Article of the Articles of Incorporation to include the authority to enter into contracts of guarantee and/or suretyships. This amendment was later ratified by the Parent Company's stockholders during the annual stockholders meeting held on April 22, 2019.

The Parent Company's principal place of business is at the MWSS Administration Building, 489 Katipunan Road, Balara, Quezon City.

The consolidated financial statements comprise the financial statements of the Parent Company and the following subsidiaries:

	Country of Incorporation and Place of Business	Effective Percentages of Ownership	
		2019	2018
Manila Water Total Solutions Corp. (MWTS)	Philippines	**100.0**	100.0
Calasiao Water Company, Inc. (Calasiao Water)	-do-	**90.0**	90.0
Manila Water Asia Pacific Pte. Ltd. (MWAP)	Singapore	**100.0**	100.0
Manila Water South Asia Holdings Pte. Ltd. (MWSAH)	-do-	**100.0**	100.0
Asia Water Network Solutions Joint Stock Company (Asia Water)[1]	Vietnam	**–**	67.9
Thu Duc Water Holdings Pte. Ltd. (TDWH)	Singapore	**100.0**	100.0
Kenh Dong Water Holdings Pte. Ltd. (KDWH)	-do-	**100.0**	100.0
Manila Water Thailand Holdings Pte. Ltd. (MWTH)	-do-	**100.0**	100.0
Manila Water (Thailand) Co., Ltd. (MWTC)	Thailand	**100.0**	100.0
Manila South East Asia Water Holdings Pte. Ltd. (MSEA)	Singapore	**100.0**	100.0
PT Manila Water Indonesia (PTMWI)[2]	Indonesia	**100.0**	100.0
Manila Water Philippine Ventures, Inc. (MWPVI)	Philippines	**100.0**	100.0
Laguna AAAWater Corporation (Laguna Water)	-do-	**70.0**	70.0
Clark Water Corporation (Clark Water)	-do-	**100.0**	100.0
Boracay Island Water Company, Inc. (Boracay Water)	-do-	**80.0**	80.0
Filipinas Water Holdings Corp. (Filipinas Water)[3]	Philippines	**100.0**	100.0
Obando Water Company, Inc. (Obando Water)	-do-	**90.0**	90.0
Bulakan Water Company, Inc. (Bulakan Water)	-do-	**90.0**	90.0
Metro Ilagan Water Company, Inc. (Ilagan Water)	-do-	**90.0**	–
MWPV South Luzon Water Corp. (South Luzon Water)	-do-	**100.0**	–
North Luzon Water Company, Inc. (North Luzon Water)	-do-	**100.0**	100.0

(Forward)

	Country of Incorporation and Place of Business	Effective Percentages of Ownership	
		2019	2018
Manila Water Consortium, Inc. (MW Consortium)	-do-	**57.2**	57.2
Cebu Manila Water Development, Inc. (Cebu Water)[4]	-do-	**40.4**	40.4
Davao del Norte Water Infrastructure Company, Inc. (Davao Water)	-do-	**51.0**	51.0
Tagum Water Company, Inc. (Tagum Water)[5]	-do-	**45.9**	45.9
Bulacan MWPV Development Corp. (BMDC)	-do-	**100.0**	100.0
Aqua Centro MWPV Corp. (Aqua Centro)	-do-	**100.0**	100.0
Manila Water Technical Ventures, Inc. (MWTV)[6]	-do-	**100.0**	100.0
EcoWater MWPV Corp. (EcoWater)	-do-	**100.0**	100.0
Leyte Water Company, Inc. (Leyte Water)	-do-	**100.0**	100.0
Zamboanga Water Company, Inc. (Zamboanga Water)	-do-	**70.0**	70.0
Calbayog Water Company, Inc. (Calbayog Water)	-do-	**100.0**	–

[1]Asia Water is 51.00% owned by Saigon Water Infrastructure Corporation (Saigon Water) and 48.50% owned by MWSAH. MWSAH's effective ownership interest in Asia Water is 67.87% as of December 31, 2018 (nil as of December 31, 2019) by virtue of its 37.99% ownership interest in Saigon Water.
[2]PTMWI is 95.00% owned by MSEA and 5.00% owned by an individual whose ownership has been pledged to MSEA.
[3]Filipinas Water is 49.00% owned by the Parent Company and 51.00% owned by MWPVI.
[4]Cebu Water is 70.58% owned by MW Consortium. MWPVI's effective ownership interest in Cebu Water is 40.39% by virtue of its 57.22% ownership interest in MW Consortium.
[5]Tagum Water Company is 90.00% owned by the Davao Water. MWPVI's effective interest in Tagum Water is 45.90% by virtue of its 51.00% ownership interest in Davao Water.
[6]Previously named Manila Water International Solutions, Inc.

Investments in Manila Water International Solutions, Inc. (MWIS), Davao Water, and Zamboanga Water
On October 3, 2017, the BOD approved the sale of the Parent Company's shareholdings in MWIS (now, MWTV) to MWPVI. On December 26, 2017, the Parent Company executed a Deed of Absolute Sale of Shares and Receivables to MWPVI for the transfer of 2,500,000 common shares of MWIS and receivables from MWIS.

On April 16, 2018, the BOD of MWIS approved the amendment of its Articles of Incorporation to change MWIS' corporate name to Manila Water Technical Ventures, Inc. which was subsequently approved by the SEC on November 20, 2019.

On May 23, 2018, the Parent Company sold to MWPVI its 765,000 common shares of Davao Water comprising approximately 51.00% of Davao Water's outstanding capital stock for a consideration of ₱75.58 million.

On July 2, 2018, the Parent Company sold to MWPVI its 245,000 common shares of Zamboanga Water comprising approximately 70.00% of Zamboanga Water's outstanding capital stock for a consideration of ₱35.81 million.

Dissolution of Asia Water
On March 27, 2019, through the Annual General Meeting of Shareholders of Asia Water, the shareholders approved for the dissolution of Asia Water. All administrative procedures related to the dissolution of the Asia Water have been completed as of September 30, 2019.

Parent Company's Concession Agreement with Metropolitan Waterworks and Sewerage System (MWSS)
On February 21, 1997, the Parent Company entered into a Concession Agreement (the "Concession Agreement") with MWSS, a government corporation organized and existing pursuant to Republic Act (RA) No. 6234, as amended, with respect to the MWSS East Zone (the "East Zone"). The Concession Agreement sets forth the rights and obligations of the Parent Company throughout a twenty-five (25)-year concession period. The MWSS Regulatory Office (MWSS RO) monitors and reviews the performance of each of the Concessionaires – the Parent Company and Maynilad Water Services, Inc. (Maynilad), the West Zone Concessionaire.

Under the Concession Agreement, MWSS grants the Parent Company (as contractor to perform certain functions and as agent for the exercise of certain rights and powers under RA No. 6234) the sole right to manage, operate, repair, decommission, and refurbish all fixed and movable assets (except certain retained assets) required to provide water delivery and sewerage services in the East Zone for a period of twenty-five (25) years commencing on August 1, 1997 (the Commencement Date) up to May 6, 2022 (the Expiration Date) or the early termination date as the case may be. While the Parent Company has the right to manage, operate, repair, and refurbish specified MWSS facilities in the East Zone, legal title to these assets remains with MWSS. The legal title to all fixed assets contributed to the existing MWSS system by the Parent Company during the Concession remains with the Parent Company until the Expiration Date (or until the early termination date) at which time all rights, titles and interest in such assets will automatically vest to MWSS.

On Commencement Date, the Parent Company officially took over the operations of the East Zone and rehabilitation works for the service area commenced immediately thereafter. As provided in the Parent Company's project plans, operational commercial capacity has been obtained upon substantial completion of the rehabilitation work.

Under the Concession Agreement, the Parent Company is entitled to the following rate adjustments:

a. annual standard rate adjustment to compensate for increases in the Consumer Price Index (CPI);
b. extraordinary price adjustment (EPA) to account for the financial consequences of the occurrence of certain unforeseen events stipulated in the Concession Agreement;
c. foreign currency differential adjustment (FCDA) to recover foreign exchange losses including all accruals and carrying costs thereof, arising from MWSS loans and any Concessionaire loans used for capital expenditures and concession fee payments, in accordance with the provisions set forth in Amendment No. 1 of the Concession Agreement dated October 12, 2001 (see Notes 2, 10 and 12); and
d. Rebasing Convergence Adjustment for the purposes of calculating the Rates Adjustment Limit for each of the five Charging Years of the Rebasing Period determined based on the following:
    i. where the Rebasing Adjustment is found to be positive, the Rebasing Convergence Adjustment for the first Charging Year of the Rate Rebasing Period shall be equal to the Rebasing Adjustment, and the Rebasing Convergence Adjustment for each of the following four (4) Charging Years shall be zero; and
    ii. where the Rebasing Adjustment is found to be negative, the Rebasing Adjustment for each of the five (5) Charging Years of the Rebasing Period shall be equal to the Rebasing Adjustment divided by five (5).

These rate adjustments are subject to a rate adjustment limit which is equivalent to the sum of CPI published in the Philippines, EPA and Rebasing Convergence Adjustment as defined in the Concession Agreement. The Concession Agreement also provides a general rate setting policy for rates chargeable by the Parent Company for water and sewerage services as follows:

a. For the period through the second Rate Rebasing date (January 1, 2008), the maximum rates chargeable by the Parent Company (subject to interim adjustments) are set out in the Concession Agreement; and,
b. From and after the second Rate Rebasing date, the rates for water and sewerage services shall be set at a level that will permit the Parent Company to recover, over the twenty-five (25)-year term of the concession, its investment including operating, capital maintenance and investment incurred, Philippine business taxes and payments corresponding to debt service on MWSS loans and the Parent Company's loans incurred to finance such expenditures, and to earn a rate of return equal to the appropriate discount rate (ADR) on these expenditures for the remaining term of the concession.

The maximum rates chargeable for such water and sewerage services shall be subject to general adjustment at five (5)-year intervals commencing on the second Rate Rebasing date, provided that the MWSS RO may exercise its discretion to make a general adjustment of such rates.

On April 16, 2009, the MWSS Board of Trustees (MWSS BOT) passed Resolution No. 2009-072 approving the fifteen (15)-year extension of the Concession Agreement (the "Extension") from May 7, 2022 to May 6, 2037. This resolution was confirmed by the Department of Finance (DOF), by authority from the Office of the President of the Republic of the Philippines, on October 23, 2009. The significant commitments under the Extension follow:

a. To mitigate tariff increases such that there will be reduction of the balance of the approved 2008 rebased tariff by 66%, zero increase of the rebased tariff in 2009 and a ₱1.00 increase for years 2010 to 2016, subject to CPI and FCDA adjustments.
b. To increase the share in the current operating budget support to MWSS by 100% as part of the concession fees starting 2009.
c. To increase the total investments from the approved ₱187.00 billion for the periods 2008 to 2022 to ₱450.00 billion for 2008 to 2037.

With the approval of the Extension, the recovery period for the Parent Company's investment has been extended by another fifteen (15) years from 2022 to 2037.

On December 5, 2019, the MWSS BOT issued Resolution No. 2019-201-CO revoking Resolution No. 2009-072 dated April 16, 2009 pertaining to the Extension of the Concession Agreement of the Parent Company from May 7, 2022 to May 6, 2037.

On December 20, 2019, MWSS released a press statement clarifying Resolution No. 2019-201-CO and confirming that the action of the MWSS BOT did not result in the rescission or outright cancellation of the Concession Agreement.

On January 29, 2020, the Parent Company received a response letter from the MWSS RO confirming that the twenty-five (25)-year Concession Agreement from 1997 to 2022 and the Memorandum of Agreement and Confirmation between the Parent Company and the MWSS providing for the fifteen (15)-year Extension from 2022 to 2037 have not yet been cancelled.

Rate Rebasing Tariff Adjustments
In March 2012, the Parent Company submitted to MWSS a business plan embodying its rate rebasing proposals for charging year 2013. The rate rebasing activity is done every five (5) years. MWSS conducted a review of the proposal including the Parent Company's last five (5) years' financial performance. The financial review process was extended up to the third quarter of 2013. On September 10, 2013, the MWSS RO issued Resolution No. 13-09-CA providing for a negative rate rebasing adjustment of 29.47% on the Parent Company's 2012 average basic water rate of ₱24.57 per cubic meter which shall be implemented in five (5) equal tranches of negative 5.894% per charging year. The Parent Company objected to MWSS' Rate Rebasing determination and formally

filed its Dispute Notice on September 24, 2013, before a duly-constituted Appeals Panel, commencing the arbitration process, as provided under Section 12 (in relation to Section 9.4 of the Concession Agreement).

On December 10, 2013, the MWSS BOT, through MWSS RO Resolution No. 13-012 CA, approved the implementation of a status quo for the Parent Company's Standard Rates, including FCDA, until such time that the Appeals Panel has rendered a final award on the 2013 Rate Rebasing determination.

On April 21, 2015, the Parent Company received the final award of the Appeals Panel in the arbitration which included the following tariff component determination:

a. ₱28.1 billion Opening Cash Position (OCP) which restored ₱11.0 billion from the September 2013 OCP determination of MWSS of ₱17.1 billion;
b. ₱199.6 billion capital expenditures and concession fees which restores ₱29.5 billion from the September 2013 future capital and concession fee expenditure of ₱170.1 billion;
c. 7.61% ADR which was an improvement of 79 bps from the post-tax ADR of 6.82% in September 2013; and
d. exclusion of corporate income tax from cash flows beginning January 1, 2013.

Consequently, the final award resulted in a rate rebasing adjustment for the period 2013 to 2017 of negative 11.05% on the 2012 basic average water charge of ₱25.07 per cubic meter. This adjustment translated to a decrease of ₱2.77 per cubic meter from the tariff during the intervening years before the 2018 rate rebasing. Annual CPI adjustments and the quarterly FCDA will continue to be made consistent with the Parent Company's Concession Agreement with MWSS.

On September 27, 2018, the MWSS BOT (MWSS Resolution No. 2018-145-RO) approved the Parent Company's Rebasing Adjustment for the Fifth Rate Rebasing Period (2018 to 2022) as recommended by the MWSS RO (MWSS RO Resolution No. 2018-10-CA). To mitigate the impact on the tariff of its customers, the Parent Company shall stagger its implementation over a five (5)-year period. The first tranche took effect on October 16, 2018 amounting to ₱1.46 per cubic meter or 5.70% of the pre-rebased 2017 basic tariff. The MWSS BOT also approved the implementation of the subsequent partial Rebasing Convergence Adjustment on a staggered basis as scheduled below:

- ₱2.00 on January 1, 2020,
- ₱2.00 on January 1, 2021, and
- ₱0.76 on January 1, 2022.

On December 13, 2018, the MWSS BOT (MWSS Resolution No. 2018-190-RO) approved the Parent Company's implementation of the 5.70% CPI Adjustment to be applied to the 2018 average basic charge of ₱26.98 per cubic meter and the 2.62% FCDA to be applied to the 2019 average basic charge. These adjustments are recommended by the MWSS RO (MWSS RO Resolution No. 2018-12-CA) and took effect on January 1, 2019.

Effective January 1, 2022, subject to the validation of the MWSS RO of the feasibility and cost of the Wawa Bulk Water Source to Calawis Project as the Parent Company's medium-term water source, an additional partial Rebasing Convergence Adjustment of up to ₱0.28 per cubic meter on top of the basic partial Rebasing Convergence Adjustment of ₱0.76 per cubic meter, was approved by the MWSS BOT on September 27, 2018.

Arbitration under the United Nations Commission on International Trade Law (UNCITRAL) Rules (1976)
On April 23, 2015, the Parent Company served to the Republic of the Philippines (the "Republic"), through the DOF, its Notice of Claim demanding that the Republic indemnify the Parent Company in accordance with the indemnity clauses in the Republic's Letter of Undertaking dated July 31, 1997 and Letter of Undertaking dated October 19, 2009.

The Parent Company asserted that the Republic interfered with the specific mechanism contained in Article 9.4 (General Rate Setting Policy/Rate Rebasing Determination) of the Concession Agreement thereby causing the impairment of the Parent Company's rate of return.

On November 29, 2019, the Parent Company received from its legal counsel the Award (the "Award") rendered by the Arbitral Tribunal (the "Tribunal") in the arbitration proceedings between the Parent Company and the Republic constituted under the Permanent Court of Arbitration, with proceedings held in Singapore.

The Tribunal ruled that the Parent Company has a right to indemnification for actual losses suffered by it on account of the Republic's breach of its obligation. The Tribunal ordered the Republic to indemnify the Parent Company the amount of ₱7.39 billion representing the actual losses it suffered from June 1, 2015 to November 22, 2019 and to pay 100% of the amounts paid by the Parent Company to the Permanent Court of Arbitration and 85% of the Parent Company's other claimed costs.

On December 11, 2019, during the meeting of the Committee on Good Government and Public Accountability and the Committee on Public Accounts of the House of Representatives, the Parent Company's President and Chief Executive Officer made the following pronouncements in deference to President Rodrigo Roa Duterte:

a. The Parent Company will not collect the ₱7.39 billion Award rendered by the Tribunal in the arbitration proceedings between the Parent Company and the Republic.
b. The Parent Company will defer implementation of the Approved Rate Adjustment effective January 1, 2020 and has signified its intention to establish a suitable arrangement with the MWSS.
c. The Parent Company has agreed to and started discussions with the MWSS on the provisions of the Concession Agreement identified for renegotiation and amendment.

As of December 31, 2019, the Parent Company has yet to receive a copy of the proposed revisions to the Concession Agreement.

Parent Company Water Supply Shortage
In March 2019, the large decline in La Mesa dam water levels caused water service availability in the East Zone to drop significantly, reaching its lowest level at about 68.5 meters in April 2019. In response to the effect of the water supply shortage to customers of the East Zone, on March 26, 2019, the Parent Company announced a voluntary one-time Bill Waiver Program which was implemented in April 2019 to help alleviate the inconvenience of all customers and to assist those severely affected by the water supply shortage.

In April 2019, MWSS BOT (MWSS Resolution No. 2019-055-CO and MWSS Resolution No. 2019-056-CO) imposed a financial penalty of ₱534.05 million on the Parent Company for its failure to meet its service obligation to provide 24/7 water supply to its customers (see Note 17). While the development of new water sources is, under the Concession Agreement, ultimately the responsibility of MWSS, the Parent Company has abided by the decision of MWSS to pay the financial penalty of ₱534.05 million even as it assumes no liability on the basis of the penalty as the Parent Company was not the root cause of the water supply shortage. Pursuant to the directive of the MWSS RO, the ₱534.05 million financial penalty was distributed to the East Zone customers through rebates wherein all connections as of March 31, 2019 received a minimum rebate equivalent to their first ten (10) cubic meters or ₱153.93 each while identified severely affected accounts received an additional rebate of ₱2,197.94 each.

Supreme Court Decision in Relation to the Philippine Clean Water Act of 2004
This case arose from a complaint filed by the OIC Regional Director Roberto D. Sheen of the Environmental Management Bureau-National Capital Region (EMB-NCR) before the Pollution Adjudication Board (PAB) against the Parent Company, Maynilad, and MWSS for alleged violation of Philippine Clean Water Act of 2004 (RA No. 9275, the "Clean Water Act"), particularly the five (5)-year deadline imposed in Section 8 thereof for connecting the existing sewage line found in all subdivisions, condominiums, commercial centers, hotels, sports and recreational facilities, hospitals, market places, public buildings, industrial complex and other similar establishments including households, to an available sewerage system. Two (2) similar complaints against Maynilad and MWSS were consolidated with this case.

On September 18, 2019, the Parent Company received a copy of the Decision of the Supreme Court on the case '*Manila Water Company, Inc. vs. The Secretary of the Department of Environment and Natural Resources, et.al.*' with G.R. No. 206823 and promulgated on August 6, 2019. In the Decision, the Supreme Court found the Parent Company liable for fines in violation of Section 8 of the Clean Water Act in the following manner:

a. The Parent Company shall be jointly and severally liable with MWSS for the total amount of ₱921.46 million covering the period starting from May 7, 2009 to the date of promulgation of the Decision, August 6, 2019, to be paid within fifteen (15) days from finality of the Decision.
b. From finality of the Decision until full payment of the ₱921.46 million fine, the Parent Company shall be fined in the initial amount of ₱322,102.00 per day, subject to a further 10.00% increase every two (2) years as provided under Section 28 of the Clean Water Act, until full compliance with Section 8 of the same law.
c. The total amount of fines imposed by the Decision shall earn legal interest of six percent (6.00%) per annum from finality and until full satisfaction thereof.

On October 2, 2019, the Parent Company filed a Motion for Reconsideration with the Supreme Court. As of December 31, 2019, the Parent Company has not received any resolution from the Supreme Court.

Foreign Currency Differential Adjustment (FCDA)
The MWSS BOT approves the FCDA quarterly. The FCDA has no impact on the net income of the Parent Company, as the same is a recovery or refund mechanism of foreign exchange losses or gains. The following FCDA adjustments and their related foreign exchange basis took effect in 2017 to 2019.

Approval Date	Effective Date	FCDA	Foreign Exchange Rate Basis
April 5, 2017	April 22, 2017	₱0.69 per cubic meter	USD1: ₱49.74 / JPY1: ₱0.37
July 27, 2017	August 13, 2017	₱0.97 per cubic meter	USD1: ₱49.86 / JPY1: ₱0.45
September 14, 2017	October 1, 2017	₱1.21 per cubic meter	USD1: ₱50.64 / JPY1: ₱0.45
December 13, 2017	January 1, 2018	₱0.63 per cubic meter	USD1: ₱51.34 / JPY1: ₱0.45
March 13, 2018	April 1, 2018	₱0.59 per cubic meter	USD1: ₱50.51 / JPY1: ₱0.46
June 14, 2018	July 1, 2018	₱1.58 per cubic meter	USD1: ₱52.10 / JPY1: ₱0.48
September 14, 2018	October 1, 2018	₱1.56 per cubic meter	USD1: ₱53.43 / JPY1: ₱0.48
December 14, 2018	January 1, 2019	₱0.75 per cubic meter	USD1: ₱53.94 / JPY1: ₱0.48
March 6, 2019	April 1, 2019	₱0.52 per cubic meter	USD1: ₱52.77 / JPY1: ₱0.47
September 26, 2019	October 13, 2019	₱0.69 per cubic meter	USD1: ₱52.41 / JPY1: ₱0.47

There were no FCDA adjustments for the first quarter of 2017 due to the vacancies in the MWSS BOT, resulting in a lack of quorum necessary for the approval of any MWSS RO resolution, including the FCDA. Meanwhile, there were no FCDA adjustments for the third quarter of 2019 as the MWSS BOT did not approve the adjustments until the fourth quarter of 2019.

Laguna Water's Concession Agreement with the Provincial Government of Laguna (PGL)
On April 9, 2002, Laguna Water entered into a concession agreement (as amended on March 31, 2004, July 22, 2009, June 30, 2015, and May 3, 2018) with PGL, a local government unit organized and existing under Philippine Laws.

Under the terms of the concession agreement, PGL grants Laguna Water (as contractor and as agent for the exercise of certain rights in Laguna) the sole and exclusive right and discretion during the concession period to manage, occupy, operate, repair, maintain, decommission and refurbish the identified facilities required to provide water services to specific areas for an operational period of twenty-five (25) years which commenced on October 20, 2004.

While Laguna Water has the right to manage, occupy, operate, repair, maintain, decommission and refurbish specified PGL facilities, legal title to these assets remains with PGL. Legal title to all assets procured by Laguna Water in the performance of its obligations under the agreement remains with Laguna Water and shall not pass to PGL until the end of the concession period at which time, Laguna Water will transfer, or if the ownership is vested in another person, cause the transfer to PGL. Laguna Water has the exclusive right to provide water services in the service areas specified in the concession agreement. Concession fees set forth in the concession agreement are computed as a percentage of revenue from water services (see Note 10).

Seventy percent (70%) of the concession fees are applied against any advances made by Laguna Water to PGL. The remaining thirty percent (30%) of the concession fees are payable annually thirty (30) days after the submission of the audited financial statements by Laguna Water, starting on the first operational period.

The concession agreement also states that the base tariff shall be increased by ten percent (10%) in Year 7, 9, 11, 14, and 17 of Laguna Water's concession, which took effect on the commencement date on October 20, 2004.

On June 30, 2015, Laguna Water and the PGL signed an amendment to the concession agreement which expands the concession area to cover all cities and municipalities in the province of Laguna, as well as the service obligation to include the provision of wastewater services and the establishment of an integrated sewage and septage system in the province.

In connection with the amendment to the concession agreement on June 30, 2015, the Sangguniang Bayan of the municipality of Calauan, Laguna approved the resolution allowing Laguna Water to provide water and wastewater services to the municipality of Calauan.

Furthermore, the concession period's commencement date was amended to mean the later of either: (i) three (3) years from the takeover date (i.e., October 20, 2004); or (ii) availment by at least 25,000 customers of the services (i.e., September 30, 2010). The concession period is deemed to have commenced on September 30, 2010 and shall end on September 30, 2035.

On October 20, 2015, the Year 11, Laguna Water made a tariff adjustment of 10% which was implemented in November 2015.

On August 23, 2017, the Sangguniang Bayan of Victoria, Laguna, approved the inclusion of its municipality within the service area of Laguna Water, pursuant to the expansion of the service area of Laguna Water under its amended concession agreement with PGL.

On May 3, 2018, the concession agreement was amended to include the approval of an environmental charge amounting to twenty percent (20%) of the water tariff for wastewater services, desludging services, and other environmental-related costs which was implemented on September 22, 2018.

On December 1, 2018, Laguna Water implemented a tariff adjustment of 10.00%.

Boracay Water's Concession Agreement with Tourism Infrastructure and Enterprise Zone Authority (TIEZA)
On December 17, 2009, Boracay Water entered into a concession agreement with TIEZA, formerly Philippine Tourism Authority (PTA). The concession agreement sets forth the rights and obligations of Boracay Water as concessionaire throughout a twenty-five (25)-year concession period. TIEZA Regulatory Office (TIEZA RO) will monitor and review the performance of the concessionaire throughout the concession period.

Under the concession agreement, TIEZA grants Boracay Water (as contractor to perform certain functions and as agent for the exercise of certain rights and powers under Presidential Decree No. 564) the sole right to manage, operate, repair, decommission, and refurbish all fixed and movable assets (except certain retained assets) required to provide water delivery and sewerage services to the entire Boracay Island for a period of twenty-five (25) years from January 1, 2010 (commencement date) until December 31, 2034 (expiration date), or the early termination date as the case may be. The legal title to all fixed assets contributed to the existing TIEZA system by Boracay Water during the concession remains with Boracay Water until the expiration date (or the early termination date) at which time all rights, titles and interest in such assets will automatically vest in TIEZA.

On January 1, 2010, Boracay Water officially took over the operations of the service area. Rehabilitation works for the service area commenced immediately thereafter. As provided in Boracay Water's project plans, operational commercial capacity will be attained upon completion of the rehabilitation works.

Under its concession agreement, Boracay Water is entitled to the following rate adjustments:

a. annual standard rate adjustment to compensate for increases in the CPI;
b. EPA to account for the financial consequences of the occurrence of certain unforeseen events stipulated in the concession agreement; and
c. FCDA to recover foreign exchange losses including accruals and carrying costs thereof arising from TIEZA loans and any loans used for capital expenditures and concession fee payments (see Notes 2, 10 and 12).

These rate adjustments are subject to a rate adjustment limit which is equivalent to the sum of CPI published in the Philippines, EPA and Rebasing Convergence Adjustment as defined in Boracay Water's concession agreement.

The rate rebasing date is set every five (5) years starting January 1, 2011. Hence, the first rate rebasing period commenced on January 1, 2010 and ended on December 31, 2010 and, in the case of subsequent rate rebasing periods, the period commencing on the last rate rebasing date and ending on December 31 of the fifth year thereafter.

On June 7, 2017, TIEZA approved the new water rates of Boracay Water, which is equivalent to an increase of 52.83% from its existing rate to be implemented on a staggered basis for a period of three (3) years with an increase of 30.14%, 11.99%, and 10.70% in 2017, 2018 and 2019, respectively. The first tranche of tariff increase was implemented on July 1, 2017, equivalent to 30.14% of the existing rate.

On December 15, 2017, TIEZA approved Boracay Water's implementation of the second tranche of tariff increase along with a 3.80% CPI effective January 1, 2018.

On December 18, 2018, TIEZA approved Boracay Water's implementation of the third tranche of tariff increase together with 7.72% CPI. Furthermore, an additional 3.00% was applied to the basic water and sewer tariff to account for FCDA. The new rates took effect on January 1, 2019.

Boracay Water's concession agreement also provides a general rate setting policy for rates chargeable by Boracay Water for water and sewerage services as follows:

a. For the period through the second rate rebasing date (January 1, 2017), the maximum rates chargeable by Boracay Water (subject to interim adjustments) are set out in the concession agreement; and,
b. From and after the second rate rebasing date, the rates for water and sewerage services shall be set at a level that will permit Boracay Water to recover, over the twenty-five (25)-year term of its concession, its investment including operating expenses, capital maintenance and investment incurred, Philippine business taxes and payments corresponding to debt service on the TIEZA loans incurred to finance such expenditures, and to earn a rate of return on these expenditures for the remaining term of the concession in line with the rates of return being allowed from time to time to operators of long-term infrastructure concession arrangements in other countries having a credit standing similar to that of the Philippines.

The maximum rates chargeable for such water and sewerage services shall be subject to general adjustment at five (5)-year intervals commencing on the second rate rebasing date, provided that the TIEZA may exercise its discretion to make a general adjustment of such rates.

Also, as part of the concession agreement, Boracay Water assumed certain property and equipment of Boracay Water Sewerage System (BWSS), as well as its outstanding loan from Japan International Cooperation Agency (JICA), considered as part of its TIEZA loans under the concession agreement, and regulatory costs.

As a result of the above terms of the concession agreement, Boracay Water recognized a total of ₱986.86 million service concession assets on its commencement date. It includes the JICA loan assumed by Boracay Water, regulatory costs, construction costs for the improvement and expansion of the water and wastewater facilities and the advanced concession fees (see Note 10).

Clark Water's Concession Agreement with Clark Development Corporation (CDC)
On March 16, 2000, Vivendi Water Philippines, Inc., which subsequently changed its name to Veolia Water Philippines, Inc. (VWPI), entered into a concession agreement with CDC, a government corporation organized and existing under Executive Order No. 80, series of 1993. The concession agreement sets out the terms and conditions under which VWPI will finance, design, construct, operate and maintain the water and sewerage system inside the Clark Freeport Zone (CFZ) commencing on October 1, 2000 and ending on the date falling twenty-five (25) years thereafter or as may be extended by the terms of the concession agreement. As the implementing arm of the Bases Conversion Development Authority and the regulatory and development body for the CFZ, CDC has the power and authority to regulate and monitor the performance and compliance of VWPI, or its assignee, with its obligations under the concession agreement.

On September 1, 2000, in accordance with the terms of the concession agreement, VWPI assigned its rights and obligations under the concession agreement to Clark Water by virtue of an assignment and assumption agreement between VWPI and Clark Water. As consideration for the grant of the concession and franchise to develop, operate and maintain the water and sewerage system within the CFZ, Clark Water pays CDC an annual franchise fee of ₱1.50 million. Any new construction, change, alteration, addition or improvement on the facilities is permitted to the extent allowed under the agreement with CDC or with the prior written consent of CDC. Legal title, free of all liens and encumbrances, to improvements made or introduced by Clark Water on the facilities as well as title to new facilities procured by Clark Water in the performance of its obligations under the concession agreement shall automatically pass to CDC on the date when the concession period expires or the date of receipt of a validly served termination notice, where in the latter case, subject to payment of the amount due as termination payments as defined in the concession agreement.

On September 29, 2000, CDC leased in favor of Clark Water the existing facilities in compliance with the condition precedent to the effectivity of and the respective obligations of Clark Water and CDC under the concession agreement. Under the lease agreement, Clark Water was required to make a rental deposit amounting to ₱2.77 million equivalent to six (6) months lease rental and a performance security amounting to ₱6.72 million to ensure the faithful compliance of Clark Water with the terms and conditions of the lease agreement. Clark Water pays semi-annual rental fees of ₱2.77 million amounting to a total of ₱138.28 million for the entire concession period. The lease term shall be co-terminus with the concession period, unless sooner terminated for any of the reasons specified in the concession agreement.

On August 15, 2014, Clark Water and CDC signed an amendment agreement to the concession agreement dated March 16, 2000. The amendment provides for the following:

a. extension of the original concession period for another fifteen (15) years up to October 1, 2040;
b. additional investment of ₱4.00 billion over the remaining life of the extended concession period, provided under the amended concession agreement, to be spent for further improvement and expansion of water and waste water services in the area. Investment requirement under the original concession agreement amounted to ₱3.00 billion and the amended concession agreement required an additional investment of ₱2.00 billion. Initial investment prior to the amendment of the concession agreement amounted to ₱1.00 billion.
c. introduction of a rate rebasing mechanism for every four (4) years starting 2014.
d. reduction in tariff rates by 3.9% (from ₱25.63/m^3 to ₱24.63/m^3) effective September 1, 2014, subject to the EPA; and
e. increase in tariff rates by:
    i. ₱0.41/m^3 (from 24.63/m^3 to ₱25.04/m^3) in 2018;
    ii. ₱0.42/m^3 (from ₱25.04/m^3 to ₱25.45/m^3) in 2019;
    iii. ₱0.42/m^3 (from ₱25.45/m^3 to ₱25.87/m^3) in 2020; and
    iv. ₱0.43/m^3 (from ₱25.87/m^3 to ₱26.30/m^3) in 2021.

As a result of the extension of the concession period, service concession assets and service concession obligation as of August 15, 2014 increased by ₱56.58 million. Further, the recovery period of the Clark Water's investment was extended by another fifteen (15) years from 2025 to 2040.

On May 26, 2017, Clark Water submitted its proposed 2018 rate rebasing plan following the four (4)-year rebasing period stated in its concession agreement. As of December 31, 2019, Clark Water's 2018 rate rebasing is still ongoing which put on hold the approved tariff increases when the concession agreement was amended in August 15, 2014.

MW Consortium Agreement with the Provincial Government of Cebu (PGC)
On March 21, 2012, MW Consortium signed a Joint Investment Agreement (JIA) with the PGC for the formation of a joint venture company with 51.00% and 49.00% equity participation for MW Consortium and the PGC, respectively. Under the JIA, the parties agreed to develop and operate a bulk water supply system that will supply 35.0 million liters of water per day to target areas in the province of Cebu with the joint venture company serving as a bulk water supplier. The term of the agreement is thirty (30) years starting March 2012 and renewable for another twenty-five (25) years. On May 23, 2012, MW Consortium and the PGC incorporated Cebu Water, with an ownership of 51.00% and 49.00%, respectively, pursuant to the JIA.

On December 13, 2013, Cebu Water received a Notice of Award for the bulk supply of water to the Metropolitan Cebu Water District (MCWD). On December 18, 2013, Cebu Water and MCWD signed a twenty (20)-year Bulk Water Supply Contract for the supply of (eighteen) 18 million liters per day of water for the first year and (thirty-five) 35 million liters per day of water for years two (2) up to twenty (20). Cebu Water delivered its initial eighteen (18) million liters per day bulk water supply to MCWD on January 5, 2015. Cebu Water increased its bulk water delivery to thirty-five (35) million liters per day in 2016.

On August 29, 2019, MW Consortium received a Notice of Breach/Default of the JIA from the PGC. On December 10, 2019, PGC issued a Notice of Termination of the JIA. Pursuant to the JIA, MW Consortium issued a Notice of Existence of a Dispute on PGC on December 12, 2019.

On February 3, 2020, MW Consortium and the PGC signed the Terms of Reference for the interim protocol between both parties pending Settlement with Finality of the Dispute between MW Consortium and PGC.

JVA for Non-revenue Water (NRW) Reduction Activities with Zamboanga City Water District (ZCWD)
On December 19, 2014, the Parent Company received a notice from the ZCWD awarding the project for NRW reduction in Zamboanga City, Zamboanga del Sur. On January 30, 2015, the Parent Company and ZCWD signed and executed a JVA in relation to the NRW reduction project in Zamboanga City. On April 10, 2015, the Parent Company and ZCWD incorporated Zamboanga Water to implement the NRW Reduction project.

On June 2, 2015, Zamboanga Water entered into a NRW Reduction Service Agreement (NRWRSA) with ZCWD. Under the NRWRSA, ZCWD grants Zamboanga Water the right to implement Network Restructuring and NRW Reduction Programs for ZCWD's water distribution system.

In October 2019, Zamboanga Water and ZCWD jointly formed a Technical Working Group to negotiate and resolve all the pending issues or disputes arising during the implementation of the NRW Reduction Project, such as the impact of the yearly occurrence of El Nino, non-payment of performance and "locked-in" fees, opposing interpretation of provisions in the NRWRSA, among others.

Bulk Water Sales and Purchase Agreement between Tagum Water and Tagum Water District (TWD)
On July 28, 2015, TWD awarded the Tagum City Bulk Water Supply Project (the "Tagum Bulk Water Project") to Davao Water, a consortium of the Parent Company and iWater, Inc.

On October 15, 2015, Davao Water signed and executed a Joint Venture Agreement (JVA) with TWD. The JVA governs the relationship of Davao Water and TWD as joint venture partners in the Tagum Bulk Water Project. Pursuant to the JVA, Davao Water and the TWD caused the incorporation of a joint venture company, namely, Tagum Water, which shall implement the Tagum Bulk Water Project for fifteen (15) years from the Operations Start Date, as defined in the JVA.

On February 26, 2016, Tagum Water and TWD signed and executed a Bulk Water Sales and Purchase Agreement for the supply of bulk water to TWD for a period of fifteen (15) years, subject to renewal upon mutual agreement by both parties. Tagum Water shall supply treated water exclusively to TWD. The quantity of treated water to be supplied to TWD will be 26.00 million liters of water per day for the first year, 32.00 million liters of water per day for years 4 to 6, and 38.00 million liters of water per day for years 7 to 15.

On March 28, 2017, TWD issued a notice to proceed for the 24-month construction of the Water Treatment plant. On June 26, 2019, TWD approved a 120-day construction period extension requested by Tagum Water due to delays caused by unforeseen conditions in the project site which was discovered only after construction had already commenced.

On July 17, 2019, Tagum Water issued to TWD the Certificate of Substantial Completion of the Water Treatment plant to begin the pre-commissioning period. On August 27, 2019, Tagum Water started the commissioning period with 5.00 to 8.00 million liters per day of treated water delivery to TWD.

On September 9, 2019, Tagum Water BOD ratified the implementation of the design, supply of materials, installation of equipment and construction of two (2) units 300mm shallow wells in Tagum City, Davao del Norte. On October 28, 2019, Tagum Water informed TWD of the completion of the two (2) wells and the results of the water quality analysis.

On December 11, 2019, Tagum Water commenced the extension of the commissioning period for 120-days with the consent of TWD BOD.

MWPVI's Memorandum of Agreement (MOA) with Ayala Land Inc. (ALI)
On January 15, 2016, MWPVI entered into a MOA with ALI and its subsidiaries (collectively, the "ALI Group"), whereby MWPVI shall exclusively provide water and used water services and facilities to all property development projects of the ALI Group.

Aqua Centro's MOAs with the SM Group
On December 8, 2016, MWPVI entered into MOAs with each of SM Prime Holdings Inc.'s and the latter's affiliates and subsidiaries, SM Development Corporation and SM Residences Corp. (collectively, the "SM Group"). Pursuant to the MOA, MWPVI will provide the water and/or used water services and facilities to the property development projects of the SM Group identified in each of the MOA.

On October 5, 2017, Aqua Centro was incorporated to handle property development projects, other than those within the ALI Group, by engaging in the development, improvement, maintenance, and expansion of water, sewerage, wastewater, and drainage facilities, and provide services necessary or incidental thereto.

On December 28, 2017, MWPVI entered into a Novation Agreement with the SM Group and Aqua Centro to transfer its rights, duties and obligations to provide water and/or used water services and facilities to the property development projects of the SM Group to Aqua Centro, effective from the inception of the MOA.

On June 25, 2018, Aqua Centro entered into additional MOAs with the SM Group with each development of SM Prime Holdings, Inc. and Metro South Davao Property Corp.

As of December 31, 2019 and 2018, Aqua Centro has eight (8) and six (6) signed MOAs with the SM Group, respectively. MWPVI has one (1) signed MOA with SM Group as of December 31, 2019 and 2018.

Calasiao Water's Concession Agreement with Calasiao Water District (CWD)
On December 9, 2016, the Parent Company received a Notice of Award from CWD, a water district created and existing by virtue of Presidential Decree No. 198, for the implementation of the joint venture project for the design, construction, rehabilitation, maintenance, operation, financing, expansion and management of the water supply system of CWD in Calasiao, Pangasinan.

On June 19, 2017, the Parent Company signed a JVA with CWD which will govern the relationship of the two in undertaking the joint venture project. Under the JVA, the Parent Company and CWD shall cause the incorporation of a joint venture company where the Parent Company and CWD shall own 90.00% and 10.00%, respectively, of the outstanding capital stock.

On August 2, 2017, the SEC approved the incorporation of Calasiao Water Company, Inc.

On October 23, 2017, Calasiao Water and CWD signed and executed a concession agreement. Under the concession agreement, the CWD grants Calasiao Water, (as contractor to perform certain functions and as agent for the exercise of certain rights and powers under Presidential Decree No. 564) the sole right to develop, manage, operate, maintain, repair, decommission, and refurbish all fixed and movable assets (except certain retained assets) required to provide water delivery in the entire Municipality of Calasiao for a period of twenty-five (25) years commencing on December 29, 2017 (the commencement date) until December 29, 2042 (the expiration date) or the early termination date as the case may be. While Calasiao Water has the right to manage, operate, repair, and refurbish specified CWD facilities in the service area, legal title to these assets remains with the CWD. The legal title to all fixed assets contributed to the existing CWD system by Calasiao Water during the concession remains with Calasiao Water until the Expiration Date (or the early termination date) at which time all rights, titles and interest in such assets will automatically vest in CWD.

Under the concession agreement, in the event that one or more grounds for EPA has occurred or is expected to occur, an appropriate price adjustment to be applied to the tariff or an appropriate adjustment to the service obligations of the concessionaire will be determined by the CWD.

The grounds for EPA means any of the following circumstances:

a. change in law or change in the interpretation of the terms of the concession agreement;
b. extraordinary cost incurred due to prolonged force majeure;
c. a material change has been made to the basis of calculation or definition of the CPI or replacement index agreed; or
d. the concessionaire has incurred significant additional costs as a result of an event of force majeure which are not covered by insurance.

MWPVI Asset Purchase Agreement (APA) with Asian Land Strategies Corporation (Asian Land) and Incorporation of BMDC
On January 4, 2017, MWPVI entered into an APA with Asian Land to acquire and operate the latter's assets used in the water business operations in Asian Land's developments in the province of Bulacan. The intention of MWPVI was to assign the rights under the APA to its wholly-owned subsidiary upon its incorporation.

On April 11, 2017, BMDC was incorporated to design, construct, rehabilitate, maintain, operate, finance, expand, and manage water supply system and sanitation facilities. BMDC is the ultimate entity that will own and operate the assets acquired from Asian Land.

On July 31, 2017, MWPVI assigned all its rights and obligations under the APA to BMDC, a wholly owned subsidiary of MWPVI, under a Deed of Assignment. On the same day, the Deed of Absolute Sale was also executed between Asian Land and BMDC (see Note 4).

Obando Water's Concession Agreement with Obando Water District (OWD)
On January 24, 2017, the consortium of the Parent Company and MWPVI received the Notice of Award from OWD for the implementation of the joint venture project for the design, construction, rehabilitation, maintenance, operation, financing, expansion, and management of the water supply system and sanitation facilities of OWD in Obando, Bulacan.

On February 2, 2017, Obando Water Consortium Holdings Corp. (now Filipinas Water) was registered with the SEC. Filipinas Water is the consortium between the Parent Company and MWPVI with an equity share of 49.00% and 51.00%, respectively. The primary purpose of Filipinas Water is to engage in the business of a holding company without acting as stockbroker or dealer in securities.

On July 26, 2017, Filipinas Water signed and executed a JVA with OWD. The JVA governs the relationship of Filipinas Water and OWD as joint venture partners in the Obando Water Concession Project (the "Obando Concession Project"). On October 10, 2017, Obando Water was incorporated. Obando Water is 90.00% and 10.00% owned by Filipinas Water and OWD, respectively.

On October 12, 2017, Obando Water and OWD signed and executed a concession agreement. Under the concession agreement, OWD grants Obando Water, (as contractor to perform certain functions and as agent for the exercise of certain rights and powers under Presidential Decree No. 564), the sole right to manage, operate, maintain, repair, refurbish, and expand the fixed and movable assets required to provide water and sanitation services in the entire Municipality of Obando for a period of twenty-five (25) years commencing on January 1, 2018 (the commencement date) until December 31, 2042 (the expiration date) or the early termination date, as the case may be. While Obando Water has the right to manage, operate, repair and refurbish specified OWD facilities in the service area, legal title to these assets remain with OWD. The legal title to all fixed assets contributed to the existing OWD system by

Obando Water during the concession remains with Obando Water until the expiration date (or the early termination date) at which time all rights, titles and interest in such assets will automatically vest in OWD.

The initial water tariff, exclusive of value-added tax (VAT) and/or any applicable tax, to be charged to the customers for the first three (3) years of the concession agreement shall be based on the 2005 Local Water Utilities Administration (LWUA) approved tariff table of OWD. Under the concession agreement, in the event that one or more grounds for EPA has occurred or is expected to occur, an appropriate price adjustment to be applied to the tariff or an appropriate adjustment to the service obligations of the concessionaire will be determined by OWD.

The grounds for EPA means any of the following circumstances:

a. change in law or change in the interpretation of the terms of the concession agreement;
b. extraordinary cost incurred due to prolonged force majeure;
c. a material change has been made to the basis of calculation or definition of the CPI or replacement index agreed;
d. change in assumptions at the time of the execution of the concession agreement; or
e. the concessionaire has incurred significant additional costs as a result of an event of force majeure which are not covered by insurance.

On March 28, 2019, LWUA has approved a new loan repayment scheme of thirteen (13) years with OWD. Upon initial payment, which shall not be later than May 15, 2019, LWUA shall no longer collect interests and penalties from OWD.

BMDC APA with Solar Resources, Inc. (Solar Resources)
On July 26, 2017, BMDC entered into an APA with Solar Resources to acquire and operate the latter's assets used in the water business operations in Solar Resources developments in the province of Bulacan.

On July 31, 2017, Solar Resources executed a Deed of Assignment in relation to the AP and a Deed of Absolute Sale to sell and transfer its properties pertaining to water facilities and its operations in the Las Palmas Subdivisions Phases 1 to 7 to BMDC (see Note 4).

BMDC APA with Borland Development Corporation (Borland)
On December 14, 2017, BMDC and Borland executed the APA, Deed of Assignment, and Deed of Absolute Sale to sell, assign, transfer, and convey Borland's assets pertaining to water facilities and its operation in San Vicente Homes subdivision in Bulacan to BMDC (see Note 4).

Notice of Award from Leyte Metropolitan Water District (LMWD)
On December 6, 2017, the Parent Company received the Notice of Award from LMWD for the implementation of the joint venture project (the "Leyte Project") for the design, construction, rehabilitation, maintenance, operation, financing, expansion, and management of the water supply and sanitation facilities and services of LMWD in the Province of Leyte.

The conditions precedent specified in the Notice of Award include the incorporation of a special purpose vehicle (SPV) which will implement the Leyte Project under a contractual joint venture with LMWD.

Upon completion of the conditions precedent specified in the Notice of Award, the SPV and LMWD shall enter into a JVA that will grant the SPV, as contractor, to perform certain functions and as agent for the exercise of, the sole and exclusive right to manage, operate, maintain, repair, refurbish and improve, expand and as appropriate, decommission, the facilities of LMWD in its Service Area, including the right to bill and collect tariff for the provision of water supply and sanitation services in the Service Area of LMWD, including the right to bill and collect tariff for the provision of water supply and sanitation services.

LMWD's service area covers the City of Tacloban and seven other municipalities namely Palo, Tanauan, Dagami, Tolosa, Pastrana, TabonTabon, and Santa Fe.

In January 2018, an internal conflict arose between the Province-appointed BOD of LMWD and the City-appointed BOD as to which is the legitimate BOD authorized to represent the LMWD. This issue caused substantial delay in the implementation and recognition of the Notice of Award in favor of the Parent Company.

On February 20, 2019, the Parent Company wrote to the LMWD, now represented by the City-Appointed BOD, and requested the LMWD to honor the Notice of Award.

On April 12, 2019, the LMWD advised that it had already rescinded/terminated the JVA negotiations with the Parent Company.

On June 21 2019, the Parent Company initiated available legal course of action to compel the LMWD to honor the Notice of Award granted to the Parent Company.

As of December 31, 2019, the case remains pending with the Supreme Court.

MWPVI JVA with Tubig Pilipinas Group, Inc. (TPGI)
On December 11, 2017, the Municipality of Malasiqui granted a franchise to MWPVI and TPGI for the implementation of a joint venture project to establish, construct, operate, manage, repair, and maintain water supply and wastewater system and facilities in the municipality of Malasiqui, Pangasinan. The franchise has a term of twenty-five (25) years from the commencement date.

On February 20, 2018, the board of directors of MWPVI approved the creation of an SPV for this project.

On November 16, 2018, MWPVI signed and executed a JVA with TPGI. Under the agreement, MWPVI and TPGI shall incorporate a joint venture company, with 50.00% and 50.00% ownership, respectively, which shall implement the project.

MWPVI Lease Agreement with the Philippine Economic Zone Authority (PEZA)
On December 18, 2017, MWPVI entered into a Lease Agreement for the Operations and Management of the Water and Used Water Facilities of PEZA in Cavite Economic Zone (CEZ), whereby MWPVI agrees to lease, operate, and maintain the existing water and used water facilities in the CEZ for the provision of water and used water services to the locators therein. The lease agreement has a term of twenty-five (25) years from signing of the contract and shall be effective on its commencement date on February 1, 2018.

MWPVI shall apply its expertise in the industrial zones operations and shall provide capital expenditures for the duration of the agreement. The Cavite Special Economic Zone is a 275-hectare industrial estate with 297 locators consuming approximately 350,000 cubic meters per month or 12.00 million liters per day.

Ilagan Water's Bulk Water Sales and Purchase Agreement with City of Ilagan Water District (CIWD)
On January 26, 2018, the Parent Company and MWPVI (collectively the "Consortium") received the Notice of Award from CIWD for the implementation of the joint venture project for the development, financing, operation and management of a raw water source, provision of bulk water supply with system expansion, and the development of septage management in Ilagan City, Isabela (the "Ilagan Project").

On November 16, 2018, the Consortium (namely, Filipinas Water) signed and executed a JVA with the CIWD. Under the JVA, Filipinas Water and CIWD shall incorporate a joint venture company, with 90.00% and 10.00% ownership, respectively, which shall implement the Ilagan Project. Upon completion of conditions precedent set out in the JVA, the joint venture company will consequently enter into a Bulk Water Sales and Purchase Agreement and Septage Management Agreement with CIWD for the implementation of the Ilagan Project for twenty-five (25) years from the commencement date.

On February 15, 2019, Ilagan Water was incorporated and registered with the Philippine SEC to implement the Ilagan Project.

On March 18, 2019, Ilagan Water's BOD approved the execution of a Bulk Water Sales and Purchase Agreement and Septage Management Agreement with CIWD.

Share Purchase Agreement (SPA) with Electricity Generating Public Company Limited (EGCO)
On February 19, 2018, the Parent Company signed a SPA with EGCO to acquire EGCO's 18.72% equity in Eastern Water Resources Development and Management Public Company Limited (East Water). East Water is a publicly listed company whose shares are traded in the Stock Exchange of Thailand. It is engaged in the provision of raw water and tap water since 1992 in the eastern seaboard of Thailand.

On March 5, 2018, MWTC entered into a one-year term facility agreement with Mizuho Bank, Ltd., Bangkok Branch (Mizuho Bangkok), whereby Mizuho Bangkok extended credit to MWTC for Thailand Baht (THB) 5.30 billion to finance MWTC's acquisition of shares in East Water (see Note 14).

On March 14, 2018, MWTC acquired 311,443,190 ordinary shares in East Water representing 18.72% equity of East Water (see Note 11).

On February 27, 2019, MWTC signed a THB5.30 billion, five (5)-year term loan facility with Mizuho Bank Ltd. – Bangkok Branch and Bank of Ayudhya Public Company Limited to refinance the previous bridge loan used in its acquisition of its investment in East Water. The loan bears interest of BIBOR plus margin and is guaranteed by the Parent Company.

SPA with PT. Triguna Rapindo Mandiri
On March 6, 2018, PTMWI signed a SPA with PT. Triguna Rapindo Mandiri to acquire 4,478 shares of PT. Sarana Tirta Ungaran (PT STU) which represented twenty percent (20.00%) ownership of the outstanding capital stock of PT STU (see Note 11).

PT STU is a bulk water supply company servicing Perusahaan Daerah Air Minum (PDAM) Kabupaten Semarang and industrial customers in Bawen, located in Ungaran area of Semarang Regency, Central Java Province, with a capacity of 21.5 million liters per day.

Notice of Award from Balagtas Water District (BWD)
On April 23, 2018, the Parent Company and MWPVI (collectively the "Consortium") received the Notice of Award from BWD for the implementation of a joint venture project for the design, construction, rehabilitation, maintenance, operation, financing, expansion and management of the water supply system and sanitation facilities of BWD in the municipality of Balagtas, Bulacan.

Bulakan Water's Concession Agreement with the Bulacan Water District (BuWD)
On April 26, 2018, the Parent Company and MWPVI (collectively the "Consortium") received the Notice of Award from the BuWD for the joint venture project for the development, financing, design, engineering, construction, rehabilitation, upgrade, testing, commissioning, operation, management, and maintenance of water facilities and the provision of water and sanitation services in the Municipality of Bulakan in Bulacan.

On August 16, 2018, Filipinas Water signed and executed a JVA with the BuWD for the implementation of the project. Under the JVA, Filipinas Water and BuWD shall incorporate a joint venture company, with 90.00% and 10.00% ownership, respectively, which shall be granted a concession by BuWD. On October 16, 2018, the joint venture company, Bulakan Water, was incorporated and was registered with the SEC.

On June 14, 2019, Bulakan Water and the BuWD signed and executed a concession agreement for the design, construction, rehabilitation, operation, maintenance, financing, expansion, and management of water facilities and the provision of water and sanitation services in the Municipality of Bulakan for a period of twenty-five (25) years from the commencement date.

North Luzon Water's MOAs with the Municipalities of Sta. Barbara, San Fabian, and Manaoag in Pangasinan
On April 27, 2018, MWPVI was granted a franchise by the Municipality of Sta. Barbara, Pangasinan for the provision of water supply and the improvement, operation, maintenance, management, financing, and expansion of water supply facilities, and the provision of septage management in Sta. Barbara, Pangasinan. The franchise has a term of twenty-five (25) years from the commencement date.

On June 11, 2018, MWPVI received a Notice to Proceed from the Municipality of Sta. Barbara for the implementation of the project.

On August 13, 2018, MWPVI was granted a franchise by the Municipality of San Fabian, Pangasinan to establish, construct, operate, manage, repair, and maintain a water supply system and facilities, and the provision of septage management in the municipality of San Fabian, Pangasinan. The franchise has a term of twenty-five (25) years from the commencement date.

On December 3, 2018, MWPVI was granted a franchise by the Municipality of Manaoag, Pangasinan to establish, construct, operate, manage, repair, and maintain a water supply system and facilities, and the provision of septage management in the municipality of Manaoag, Pangasinan. The franchise has a term of twenty-five (25) years from the commencement date.

On January 25, 2019, MWPVI received a notice to proceed for the implementation of the said project.

In 2019, MWPVI signed each of the MOAs with the Municipalities of Sta. Barbara, San Fabian, and Manaoag.

On September 16, 2019, MWPVI incorporated North Luzon Water to operate the franchises granted in Sta. Barbara, San Fabian, and Manaoag in Pangasinan.

Laguna Water JVA with Pagsanjan Water District (PAGWAD)
On July 12, 2018, Laguna Water received the Notice of Award from PAGWAD for the implementation of the contractual joint venture project for the design, improvement, upgrade, rehabilitation, and expansion of water supply and sanitation facilities including the financing and construction of such facilities and infrastructure in the service area of PAGWAD, and the management, operation, and maintenance of such water supply and sanitation facilities and the provision of the services necessary or incidental thereto in PAGWAD's service area.

On January 21, 2019, Laguna Water signed and executed a contractual JVA with PAGWAD. Under the agreement, Laguna Water shall serve as the contractor or agent of PAGWAD tasked with the operations, management, and maintenance as well as the design, improvement, upgrade, rehabilitation, and expansion of water supply and sanitation facilities within the service area of PAGWAD in Pagsanjan, Laguna. Upon completion of conditions precedents in the JVA, Laguna Water and PAGWAD shall execute the project for a period of sixteen (16) years until September 30, 2035. The agreement was executed on March 1, 2019.

Incorporation of EcoWater
On July 27, 2018, MWPVI incorporated EcoWater MWPV Corp. (EcoWater) which will eventually handle MWPVI's lease agreement with PEZA in CEZ.

Parent Company and MWPVI JVA with the Tanauan Water District (TnWD)
On October 12, 2018, the Parent Company and MWPVI (collectively, the "Consortium") received the Notice of Award from TnWD for the implementation of the joint venture project for the design, construction, rehabilitation, maintenance, operation, financing, expansion, and management of the water supply and sanitation facilities and services in the service area of TnWD in Tanauan City, Batangas.

On February 4, 2019, the Consortium signed and executed a JVA with the TnWD for the implementation of the project. Upon completion of the conditions precedent set out in the JVA, the Consortium, through an SPV, and the TnWD shall execute the Tanauan Project for a period of twenty-five (25) years from the commencement date.

On May 20, 2019, MWPV South Luzon Water Corp. (South Luzon Water), the joint venture company, was incorporated to execute the Tanauan Project.

On September 30, 2019, South Luzon Water's BOD approved to accept the assignment by the Parent Company and MWPVI of their respective rights and obligations under their JVA with the TnWD.

Parent Company's JVA with Lambunao Water District (LWD)
On November 27, 2018, the Parent Company received a Notice of Award from LWD for a joint venture for the design, construction, rehabilitation, maintenance, operation, financing, expansion, and management of the water supply system of LWD in the Municipality of Lambunao, Iloilo.

Upon completion of conditions precedent specified in the notice, the Parent Company and LWD shall enter into a JVA, the implementation of the joint venture activity of which shall be undertaken by Aqua Centro.

On July 3, 2019, the Parent Company and LWD entered into a JVA to implement the design, improvement, upgrade, rehabilitation, and expansion of water supply including the financing and construction of such facilities and infrastructure in the service area of LWD, and the management, operation and maintenance of such water supply and the provision of the services necessary or incidental thereto in the service area.

On August 8, 2019, the Parent Company's BOD ratified its Executive Committee's approval of the assignment to Aqua Centro of the implementation of the concession project awarded by LWD to the Parent Company.

On August 30, 2019, the Parent Company formally notified LWD of the designation of Aqua Centro as the Project Company to implement and carry out the concession project.

On September 1, 2019, Aqua Centro officially commenced operations on the joint venture activity. On the same date, Aqua Centro's BOD approved the Deed of Accession between the Parent Company and LWD.

On September 18, 2019, LWD gave its consent to, and confirmation of, the designation of Aqua Centro as the project company for the implementation of the project pursuant to the JVA.

On December 11, 2019, LWD signed the Deed of Accession between the Parent Company and Aqua Centro.

Notice of Award from Calinog Water District
On November 27, 2018, the Parent Company received a Notice of Award from Calinog Water District for a joint venture for the design, construction, rehabilitation, maintenance, operation, financing, expansion, and management of the water supply system of Calinog Water District in the Municipality of Calinog, Iloilo.

Upon completion of conditions precedent specified in the notice, the Parent Company and Calinog Water District shall enter into a JVA. The implementation of the joint venture activity shall be undertaken by Aqua Centro.

On June 10, 2019, the Executive Committee of the Parent Company approved the joint venture with the Calinog Water District. It also approved the assignment to Aqua Centro of the joint venture with Calinog Water District.

Aqua Centro and Laguna Water APAs with Extraordinary Development Corporate Group (EDCG)
On December 11, 2018, Aqua Centro entered into seven (7) APAs with EDCG's subsidiaries to acquire the subsidiaries' assets related to the provision of water service in ten (10) subdivisions in Imus, General Trias, and Naic in the province of Cavite. These subsidiaries are Earth Aspire Corporation, First Advance Development Corporation, Ambition Land Inc., Prosperity Builders Resources Inc., Tahanang Yaman Homes Corporation, Extraordinary Development Corp., and Earth + Style Corporation.

On December 11, 2018, Laguna Water entered into four (4) APAs with EDCG's subsidiaries to acquire the subsidiaries' assets related to or used in its water service provision operations in Biñan, Laguna. The APAs are with the following EDCG subsidiaries, namely, Earth Aspire Corporation, Earth Prosper Corporation, Earth and Style Corporation and Extraordinary Development Corp.

As of December 31, 2019 and 2018, Aqua Centro has already started operations in nine (9) and six (6) out of the ten (10) subdivisions, respectively. As of December 31, 2019, Aqua Centro shall operate the one (1) remaining subdivision once all the conditions precedent under the APAs have been fulfilled.

Notice of Award from San Jose City Water District (SJCWD)
On December 21, 2018, the consortium of MWPVI and TPGI received a Notice of Award from SJCWD for the implementation of the joint venture project for the design, construction, improvement, upgrade, rehabilitation, maintenance, operation, financing, expansion, and management of the water supply system and the provision of water and sanitation services of SJCWD in San Jose City, Nueva Ecija.

Upon the completion of the conditions precedent specified in the Notice of Award, the consortium and SJCWD shall enter into a JVA for the implementation of the joint venture project. As of December 31, 2019, the consortium and SJCWD have not yet signed the JVA.

Parent Company's JVA with Calbayog City Water District (CCWD)
On December 27, 2018, the Parent Company received the Notice of Award from CCWD for the implementation of the joint venture project for the design, construction, rehabilitation, maintenance, operation, financing, expansion, and management of the water and wastewater systems of CCWD in the Calbayog City, as well as other areas which may eventually form part of the service coverage of the CCWD in the Province of Samar.

Upon completion of the conditions precedent specified in the notice, the Parent Company shall enter into a JVA with CCWD for the implementation of the joint venture project over a twenty-five (25) year contract period.

On April 17, 2019, Calbayog Water was incorporated to engage in the development, construction, improvement, upgrade, rehabilitation, expansion, management, operation and maintenance of water supply and wastewater facilities, and to provide services necessary or incidental thereto.

On June 10, 2019, the Executive Committee of the Parent Company approved the joint venture with the CCWD. It also approved the assignment to Calbayog Water of the joint venture with CCWD.

On July 3, 2019, the Parent Company signed and executed a JVA with CCWD for the design, construction, rehabilitation, maintenance, operation, financing, expansion, and management of the water and wastewater system of CCWD in the City of Calbayog.

MWPVI's Grant of Franchise from Sangguniang Panlungsod of Iloilo
On March 26, 2019, the Sangguniang Panlungsod of Iloilo City granted a non-exclusive franchise to the joint venture between MWPVI and TPGI to construct, establish, commission, operate and maintain a water supply system to service the population of the Iloilo City.

The franchise granted to MWPVI shall be for a term of twenty-five (25) years, covering all the barangays under the governance and jurisdiction of Iloilo City.

Aqua Centro and Laguna Water MOAs with Raemulan Lands, Inc (RLI)
On July 10, 2019, Aqua Centro and Laguna Water entered into three (3) MOAs with Raemulan Lands, Inc. (RLI) for the construction, operation, and management of water distribution facilities in Pasinaya North and Tradizo Enclaves in Cavite and Jubilation Enclave in Laguna.

Aqua Centro and Laguna Water have started operations in 2019.

MWTS's Integrated Waste Management Facility with the City of Marikina
On July 31, 2019, MWTS received the Certificate of Acceptance and Grant of Original Proponent Status from the Office of the Mayor of the City of Marikina to build and operate an Integrated Waste Management Facility to treat and process the city solid waste of Marikina City. The Certificate authorizes the commencement of detailed negotiations with respect to the terms and conditions of the project.

Raw Water Supply Offtake Agreement among the Parent Company, MWSS, and WawaJVCo, Inc.
On August 6, 2019, MWSS along with the Parent Company signed a thirty (30)-year Raw Water Supply Offtake Agreement with WawaJVCo, Inc., a joint venture company formed between Prime Metroline Infrastructure Holdings Corporation and San Lorenzo Builders and Developers Corporation. This will involve the supply of 518 million liters per day of raw water from the Wawa and Tayabasan rivers and is among the medium-term water supply augmentation measures identified to provide water security and sustainability to the consumers of the East Service Area. The effectivity of the agreement shall be subject to the fulfillment of conditions precedent including the approval of the MWSS RO.

Approval for the Issuance of the Consolidated Financial Statements
The BOD approved and authorized the issuance of the consolidated financial statements on February 20, 2020.

2. Summary of Significant Accounting Policies

Basis of Preparation
The consolidated financial statements of the Group have been prepared using the historical cost basis. The Parent Company's presentation and functional currency is the Philippine Peso (₱, Peso, or PHP). Amounts are rounded off to the nearest Peso, except when otherwise stated. The consolidated financial statements of the Group provide comparative information in respect of the previous periods.

Statement of Compliance
The consolidated financial statements of the Group have been prepared in compliance with Philippine Financial Reporting Standards (PFRS).

Basis of Consolidation

The consolidated financial statements comprise the financial statements of the Group as of December 31, 2019 and 2018, and for each of the three years in the period ended December 31, 2019.

Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Assets, liabilities, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated financial statements from the date the Group gains control until the date the Group ceases to control the subsidiary.

Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Specifically, the Group controls an investee if and only if the Group has:

a. power over the investee (i.e. existing rights that give it the current ability to direct the relevant activities of the investee);
b. exposure, or rights, to variable returns from its involvement with the investee; and
c. the ability to use its power over the investee to affect its returns.

Generally, there is a presumption that a majority of voting rights result in control.

When the Group has less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

a. the contractual arrangement with the other vote holders of the investee;
b. rights arising from other contractual arrangements; and
c. the Group's voting rights and potential voting rights.

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control.

Profit or loss and each component of other comprehensive income (OCI) are attributed to the equity holders of the parent of the Group and to the noncontrolling interests, even if this results in the noncontrolling interests having a deficit balance. When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies in line with the Group's accounting policies. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction. If the Group loses control over a subsidiary, it:

a. derecognizes the assets (including goodwill) and liabilities of the subsidiary;
b. derecognizes the carrying amount of any noncontrolling interests;
c. derecognizes the cumulative translation differences recorded in equity;
d. recognizes the fair value of the consideration received;
e. recognizes the fair value of any investment retained;
f. recognizes any surplus or deficit in profit or loss; and
g. reclassifies the parent's share of components previously recognized in OCI to profit or loss or retained earnings, as appropriate, as would be required if the Group had directly disposed of the related assets or liabilities.

Changes in Accounting Policies and Disclosures

The accounting policies adopted in the preparation of the consolidated financial statements are consistent with those of the previous financial years, except for the PFRS, amended PFRS and improvements to PFRS which were adopted as of January 1, 2019. Unless otherwise stated, the new standards and amendments did not have any material impact to the Group.

a. Amendments to PFRS 9, *Prepayment Features with Negative Compensation*

   Under PFRS 9, a debt instrument can be measured at amortized cost or fair value though other comprehensive income (FVOCI), provided that the contractual cash flows are 'solely payments of principal and interest on the principal amount outstanding' (the SPPI criterion) and the instrument is held within the appropriate business model for that classification. The amendments to PFRS 9 clarify that a financial asset passes the SPPI criterion regardless of the event or circumstance that causes the early termination of the contract and irrespective of which party pays or receives reasonable compensation for the early termination of the contract.

b. PFRS 16, *Leases*

   PFRS 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for all leases under a single on-balance sheet model similar to the accounting for finance leases under Philippine Accounting Standards (PAS) 17, *Leases*. The standard includes two recognition exemptions for lessees – leases of 'low-value' assets (e.g., personal computers) and short-term leases (i.e., leases with a lease term of 12 months or less).

At the commencement date of a lease, a lessee will recognize a liability to make lease payments (i.e., the lease liability) and an asset representing the right to use the underlying asset during the lease term (i.e., the right-of-use asset). Lessees will be required to separately recognize the interest expense on the lease liability and the depreciation expense on the right-of-use asset.

Lessees will also be required to remeasure the lease liability upon the occurrence of certain events (e.g., a change in the lease term, a change in future lease payments resulting from a change in an index or rate used to determine those payments). The lessee will generally recognize the amount of the remeasurement of the lease liability as an adjustment to the right-of-use asset.

Lessor accounting under PFRS 16 is substantially unchanged from today's accounting under PAS 17. Lessors will continue to classify all leases using the same classification principle as in PAS 17 and distinguish between two types of leases: operating and finance leases.

PFRS 16 also requires lessees and lessors to make more extensive disclosures than under PAS 17.

A lessee can choose to apply the standard using either a full retrospective or a modified retrospective approach.

The Group adopted PFRS 16 using the modified retrospective approach with date of initial application as of January 1, 2019. The Group elected to use the recognition exemptions for lease contracts that, at the commencement date, have a lease term of twelve (12) months or less and do not contain a purchase option ('short-term leases'), and lease contracts for which the underlying asset is of low value ('low-value assets'). The Group also elected to use the transition practical expedient to not reassess whether a contract is, or contains a lease at January 1, 2019. Instead, the Group applied the standard only to contracts that were previously identified as leases applying PAS 17 and Philippine Interpretation International Financial Reporting Interpretations Committee (IFRIC) 4, *Determining Whether an Arrangement Contains a Lease*, at the date of initial application.

The Group also applied the available practical expedients wherein it:

- Used a single discount rate to a portfolio of leases with reasonably similar characteristics
- Relied on its assessment of whether leases are onerous immediately before the date of initial application
- Applied the short-term leases exemptions to leases with lease term that ends within twelve (12) months of the date of initial application
- Excluded the initial direct costs from the measurement of the right-of-use asset at the date of initial application
- Used hindsight in determining the lease term where the contract contained options to extend or terminate the lease

The effect of adopting PFRS 16 in the consolidated statements of financial position as of January 1, 2019 are as follows:

	Increase (Decrease)
Prepaid rent	(₱3,863,463)
Right-of-use assets	222,626,005
Deferred tax assets	3,542,343
Total assets	₱222,304,885
Lease liabilities	₱218,762,542
Deferred tax liabilities	3,542,343
Total liabilities	₱222,304,885

The Group has lease contracts for office space, plant facilities, and storage. Before the adoption of PFRS 16, the Group classified each of its leases (as lessee) at the inception date as an operating lease.

Upon adoption of PFRS 16, the Group applied a single recognition and measurement approach for all leases except for short-term leases and leases of low-value assets. The standard provides specific transition requirements and practical expedients, which have been applied by the Group.

The Group recognized right-of-use assets and lease liabilities for those leases previously classified as operating leases, except for short-term leases and leases of low-value assets. The right-of-use assets were recognized based on the amount equal to the lease liabilities, adjusted for any related prepaid and accrued lease payments previously recognized. Lease liabilities were recognized based on the present value of the remaining lease payments, discounted using the incremental borrowing rate at the date of initial application.

The lease liabilities as at January 1, 2019 can be reconciled to the operating lease commitments as of December 31, 2018, as follows:

Operating lease commitments as at December 31, 2018	₱410,359,079
Weighted average incremental borrowing rate at January 1, 2019	7.86%
Discounted operating lease commitments at January 1, 2019	223,460,542
Less: Commitments relating to short-term leases	(4,698,000)
Lease liabilities as at January 1, 2019	₱218,762,542

The adoption of PFRS 16 did not have an impact on equity in 2019, since the Company elected the right-of-use assets at an amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognized in the statement of financial position immediately before the date of the initial application.

c. Amendments to PAS 19, *Employee Benefits, Plan Amendment, Curtailment or Settlement*

The amendments to PAS 19 address the accounting when a plan amendment, curtailment or settlement occurs during a reporting period. The amendments specify that when a plan amendment, curtailment or settlement occurs during the annual reporting period, an entity is required to:

- Determine current service cost for the remainder of the period after the plan amendment, curtailment or settlement, using the actuarial assumptions used to remeasure the net defined benefit liability (asset) reflecting the benefits offered under the plan and the plan assets after that event; and

- Determine net interest for the remainder of the period after the plan amendment, curtailment or settlement using: the net defined benefit liability (asset) reflecting the benefits offered under the plan and the plan assets after that event; and the discount rate used to remeasure that net defined benefit liability (asset).

The amendments also clarify that an entity first determines any past service cost, or a gain or loss on settlement, without considering the effect of the asset ceiling. This amount is recognized in profit or loss. An entity then determines the effect of the asset ceiling after the plan amendment, curtailment or settlement. Any change in that effect, excluding amounts included in the net interest, is recognized in other comprehensive income.

The amendments did not have any impact on the Group's consolidated financial statements since the Group did not have any plan amendments, curtailments, or settlements during the year.

d. Amendments to PAS 28, *Long-term Interests in Associates and Joint Ventures*

The amendments clarify that an entity applies PFRS 9 to long-term interests in an associate or joint venture to which the equity method is not applied but that, in substance, form part of the net investment in the associate or joint venture (long-term interests). This clarification is relevant because it implies that the expected credit loss model in PFRS 9 applies to such long-term interests.

The amendments also clarified that, in applying PFRS 9, an entity does not take account of any losses of the associate or joint venture, or any impairment losses on the net investment, recognized as adjustments to the net investment in the associate or joint venture that arise from applying PAS 28, *Investments in Associates and Joint Ventures*.

Since the Group does not have such long-term interests in its associates and joint ventures, the amendments did not have an impact on its consolidated financial statements.

e. Philippine Interpretation IFRIC 23, *Uncertainty over Income Tax Treatments*

The interpretation addresses the accounting for income taxes when tax treatments involve uncertainty that affects the application of PAS 12, *Income Taxes*, and does not apply to taxes or levies outside the scope of PAS 12, nor does it specifically include requirements relating to interest and penalties associated with uncertain tax treatments.

The interpretation specifically addresses the following:

- Whether an entity considers uncertain tax treatments separately;
- The assumptions an entity makes about the examination of tax treatments by taxation authorities;
- How an entity determines taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates; and,
- How an entity considers changes in facts and circumstances.

An entity must determine whether to consider each uncertain tax treatment separately or together with one or more other uncertain tax treatments. The approach that better predicts the resolution of the uncertainty should be followed.

Upon adoption of the Interpretation, the Group considered whether it has any uncertain tax positions, particularly those relating to the taxability of certain income and the non-deductibility of certain expenses for income tax reporting purposes. This interpretation did not have any impact to the Group's consolidated financial statements because there is no uncertainty involved in the tax treatments made by management in connection with the calculation of its current and deferred taxes as of and for the years ended December 31, 2019 and 2018.

f. Annual Improvements to PFRSs 2015- 2017 Cycle

- Amendments to PFRS 3, *Business Combinations*, and PFRS 11, *Joint Arrangements, Previously Held Interest in a Joint Operation*

  The amendments clarify that, when an entity obtains control of a business that is a joint operation, it applies the requirements for a business combination achieved in stages, including remeasuring previously held interests in the assets and liabilities of the joint operation at fair value. In doing so, the acquirer remeasures its entire previously held interest in the joint operation.

  A Group's party that participates in, but does not have joint control of, a joint operation might obtain joint control of the joint operation in which the activity of the joint operation constitutes a business as defined in PFRS 3. The amendments clarify that the previously held interests in that joint operation are not remeasured.

  An entity applies those amendments to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after January 1, 2019 and to transactions in which it obtains joint control on or after the beginning of the first annual reporting period beginning on or after January 1, 2019, with early application permitted. These amendments had no impact on the consolidated financial statements of the Group as there were no transactions where joint control was obtained.

- Amendments to PAS 12, *Income Tax Consequences of Payments on Financial Instruments Classified as Equity*

  The amendments clarify that the income tax consequences of dividends are linked more directly to past transactions or events that generated distributable profits than to distributions to owners. Therefore, an entity recognizes the income tax consequences of dividends in profit or loss, other comprehensive income or equity according to where the entity originally recognized those past transactions or events.

  These amendments are not relevant to the Group because dividends declared by the Group did not give rise to tax obligations under the current tax laws.

- Amendments to PAS 23, *Borrowing Costs, Borrowing Costs Eligible for Capitalization*

  The amendments clarify that an entity treats as part of general borrowings any borrowing originally made to develop a qualifying asset when substantially all of the activities necessary to prepare that asset for its intended use or sale are complete.

  An entity applies those amendments to borrowing costs incurred on or after the beginning of the annual reporting period in which the entity first applies those amendments. An entity applies those amendments for annual reporting periods beginning on or after January 1, 2019, with early application permitted.

  The amendments had no impact to the Group's consolidated financial statements since the Group's current practice is in line with these amendments.

Future Changes in Accounting Policies

Pronouncements issued but not yet effective are listed below. Unless otherwise indicated, the Group does not expect that the future adoption of the said pronouncements will have a significant impact on its consolidated financial statements. The Group intends to adopt the following pronouncements when they become effective.

Effective beginning on or after January 1, 2020

a. Amendments to PFRS 3, *Definition of a Business*

The amendments to PFRS 3 clarify the minimum requirements to be a business, remove the assessment of a market participant's ability to replace missing elements, and narrow the definition of outputs. The amendments also add guidance to assess whether an acquired process is substantive and add illustrative examples. An optional fair value concentration test is introduced which permits a simplified assessment of whether an acquired set of activities and assets is not a business.

An entity applies those amendments prospectively for annual reporting periods beginning on or after January 1, 2020, with earlier application permitted.

These amendments will apply to future business combinations of the Group.

b. Amendments to PAS 1, *Presentation of Financial Statements,* and PAS 8*, Accounting Policies, Changes in Accounting Estimates and Errors, Definition of Material*

The amendments refine the definition of material in PAS 1 and align the definitions used across PFRSs and other pronouncements. They are intended to improve the understanding of the existing requirements rather than to significantly impact an entity's materiality judgements.

An entity applies those amendments prospectively for annual reporting periods beginning on or after January 1, 2020, with earlier application permitted.

Effective beginning on or after January 1, 2021

a. PFRS 17, *Insurance Contracts*

PFRS 17 is a comprehensive new accounting standard for insurance contracts covering recognition and measurement, presentation and disclosure. Once effective, PFRS 17 will replace PFRS 4, *Insurance Contracts.* This new standard on insurance contracts applies to all types of insurance contracts (i.e., life, non-life, direct insurance and re-insurance), regardless of the type of entities that issue them, as well as to certain guarantees and financial instruments with discretionary participation features. A few scope exceptions will apply.

The overall objective of PFRS 17 is to provide an accounting model for insurance contracts that is more useful and consistent for insurers. In contrast to the requirements in PFRS 4, which are largely based on grandfathering previous local accounting policies, PFRS 17 provides a comprehensive model for insurance contracts, covering all relevant accounting aspects. The core of PFRS 17 is the general model, supplemented by:

- A specific adaptation for contracts with direct participation features (the variable fee approach)
- A simplified approach (the premium allocation approach) mainly for short-duration contracts

PFRS 17 is effective for reporting periods beginning on or after January 1, 2021, with comparative figures required. Early application is permitted.

The standard is not applicable to the Group since none of the entities within the Group have activities that are predominantly connected with insurance or issue insurance contracts.

Interpretation with Deferred Effective Date

a. Amendments to PFRS 10 and PAS 28, *Sale or Contribution of Assets between an Investor and its Associate or Joint Venture*

The amendments address the conflict between PFRS 10 and PAS 28 in dealing with the loss of control of a subsidiary that is sold or contributed to an associate or joint venture. The amendments clarify that a full gain or loss is recognized when a transfer to an associate or joint venture involves a business as defined in
PFRS 3, *Business Combinations.* Any gain or loss resulting from the sale or contribution of assets that does not constitute a business, however, is recognized only to the extent of unrelated investors' interests in the associate or joint venture.

On January 13, 2016, the Financial Reporting Standards Council postponed the original effective date of January 1, 2016 of the said amendments until the International Accounting Standards Board has completed its broader review of the research project on equity accounting that may result in the simplification of accounting for such transactions and of other aspects of accounting for associates and joint ventures.

Significant Accounting Policies

Current versus Noncurrent Classification
The Group presents assets and liabilities in the consolidated statement of financial position based on a current and noncurrent classification. An asset is current when it is:

a. expected to be realized or intended to be sold or consumed in normal operating cycle;
b. held primarily for the purpose of trading;
c. expected to be realized within twelve (12) months after the reporting period; or
d. cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least twelve (12) months after the reporting period.

All other assets are classified as noncurrent.

A liability is current when:

a. it is expected to be settled in normal operating cycle;
b. it is held primarily for the purpose of trading;
c. it is due to be settled within twelve (12) months after the reporting period, or
d. there is no unconditional right to defer the settlement of the liability for at least twelve (12) months after the reporting period.

The Group classifies all other liabilities as noncurrent.

Deferred tax assets and liabilities are classified as noncurrent assets and liabilities, respectively.

Fair Value Measurement
Fair value is the estimated price that would be received for selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either:

a. in the principal market for the asset or liability; or
b. in the absence of a principal market, in the most advantageous market for the asset or liability.

The principal or the most advantageous market must be accessible by the Group.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The Group uses valuation techniques that are appropriate in the circumstances and for which value, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the consolidated financial statements are categorized within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value as a whole:

a. Level 1: quoted (unadjusted) prices in active markets for identical assets or liabilities.
b. Level 2: valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable.
c. Level 3: valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

For assets and liabilities that are recognized in the consolidated financial statements on a recurring basis, the Group determines whether transfers have occurred between Levels in the hierarchy by reassessing categorization (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

The Group's management determines the policies and procedures for both recurring and nonrecurring fair value measurement.

For the purpose of fair value disclosures, the Group has determined classes of assets and liabilities on the basis of the nature, characteristics and risks of the asset or liability and the level of the fair value hierarchy as explained above.

Cash and Cash Equivalents
Cash includes cash on hand and in banks. Cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash with original maturities of three months or less from the date of acquisition and that are subject to an insignificant risk of change in value.

Short-term Investments
These are short-term, highly liquid investments that are readily convertible to known amounts of cash with original maturities of more than three months from the date of acquisition and that are subject to an insignificant risk of change in value.

Recognition and Measurement of Financial Instruments

Financial assets
a. *Initial recognition and measurement*
Financial assets are classified, at initial recognition, as either subsequently measured at amortized cost, at FVOCI, or at fair value through profit or loss (FVTPL).

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them. With the exception of trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient, the Group initially measures a financial asset at its fair value plus, in the case of a financial asset not at FVTPL, transaction costs. Trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient are measured at the transaction price determined under PFRS 15, *Revenue from Contracts with Customers*.

In order for a financial asset to be classified and measured at amortized cost or at FVOCI, it needs to give rise to cash flows that are 'solely payments of principal and interest' on the principal amount outstanding. This assessment is referred to as the 'solely payments of principal and interest test' and is performed at an instrument level.

The Group's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

Purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the market place (regular way trades) are recognized on the trade date, i.e., the date that the Group commits to purchase or sell the asset.

As of December 31, 2019 and 2018, the Group's financial assets comprise of financial assets at amortized cost.

b. *Subsequent measurement – Financial assets at amortized cost*
Financial assets are measured at amortized cost if both of the following conditions are met:

- the asset is held within the Group's business model whose objective is to hold assets in order to collect contractual cash flows; and
- the contractual terms of the instrument give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets at amortized cost are subsequently measured using the effective interest method and are subject to impairment. Gains and losses are recognized in profit or loss when the asset is derecognized, modified or impaired.

The Group classified cash in banks and cash equivalents, short term investments, receivables, and concession financial receivable as financial assets at amortized cost (see Notes 5, 6, and 10).

c. *Derecognition*
A financial asset (or, where applicable, a part of a financial asset or part of a group of financial assets) is derecognized when:

- the right to receive cash flows from the asset has expired; or
- the Group has transferred its right to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement; and either (i) the Group has transferred substantially all the risks and rewards of the asset, or (ii) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Group has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if, and to what extent, it has retained the risks and rewards of ownership. When it has neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the Group continues to recognize the transferred asset to the extent of its continuing involvement. In that case, the Group also recognizes an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group could be required to repay.

d. *Impairment*
The Group recognizes an allowance for expected credit losses (ECL) for all debt instruments not held at FVTPL. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate (EIR). The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

ECLs are recognized in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next twelve months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL). ECL's are recognized in two stages. For credit exposures for which there has not been a

significant increase in credit risk since initial recognition, ECL's are provided for credit losses that result from default events that are possible within the next twelve months (a 12-month ECL).

For receivables and contract assets, the Group applies a simplified approach in calculating ECLs. Therefore, the Group does not track changes in credit risk, but instead recognizes a loss allowance based on lifetime ECLs at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

The Group considers a financial asset in default when contractual payments are ninety (90) up to one hundred eighty (180) days past their due dates. However, in certain cases, the Group may also consider a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

Financial liabilities

a. *Initial recognition and measurement*

Financial liabilities are classified, at initial recognition, either as financial liabilities at FVTPL, loans and borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

All financial liabilities are recognized initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs.

As of December 31, 2019 and 2018, the Group's financial liabilities comprise of financial liabilities at amortized cost.

b. *Subsequent measurement*

After initial recognition, long-term debt and service concession obligations are subsequently measured at amortized cost using the EIR method.

Gains and losses are recognized under the "Other income (expense)" account in the consolidated statements of comprehensive income when the liabilities are derecognized or impaired, and through the "Interest expense" account when the gains and losses are amortized. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR.

This accounting policy applies to the Group's accounts and other payables, lease liabilities, long-term debt, and service concession obligations.

c. *Derecognition*

A financial liability is derecognized when the obligation under the liability is discharged or canceled or has expired. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in the Group's statement of comprehensive income.

Offsetting Financial Instruments

Financial assets and financial liabilities are offset and the net amount reported in the consolidated statements of financial position, if and only if, there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, to realize the asset and settle the liability simultaneously. The Group assesses that it has a currently enforceable right of offset if the right is not contingent on a future event and is legally enforceable in the normal course of business, event of default, and event of insolvency or bankruptcy of the Group and all of the counterparties.

Inventories

Inventories are valued at the lower of cost or net realizable value (NRV). NRV is the estimated selling price less estimated costs to complete and to sell. The cost is determined using the moving average method for all inventories, except for raw materials and finished goods. The cost of raw materials and finished goods are determined based on the periodic weighted average method.

The cost of raw materials includes all costs directly attributable to their acquisition.

Finished goods include the cost of raw materials, direct labor, and a proportion of manufacturing overhead.

Prepaid Expenses

Prepaid expenses are carried at cost less the amortized portion. These typically include prepayments for regulatory costs, business taxes, insurance and employee health care expenses, and other benefits.

Property, Plant and Equipment

Property, plant and equipment, except land, are stated at cost less accumulated depreciation and amortization and any impairment in value. Land is stated at cost less any impairment in value.

The initial cost of property, plant and equipment comprises its purchase price, including import duties, taxes and any directly attributable costs of bringing the property, plant and equipment to its working condition and location for its intended use, including capitalized borrowing costs incurred during the construction period. Expenditures incurred after the property, plant and equipment have been put into operation, such as repairs and maintenance, are normally charged to operations in the period in which the costs are incurred. In situations where it can be clearly demonstrated that the expenditures have resulted in an increase in the future economic benefits expected to be obtained from the use of an item of property, plant and equipment beyond its originally assessed standard of performance, the expenditures are capitalized as additional cost of the related property, plant and equipment.

Depreciation and amortization of property, plant and equipment commences once the property, plant and equipment are available for use and are calculated on a straight-line basis over the estimated useful lives (EUL) of the property, plant and equipment as follows:

Leasehold improvements	5 years or lease term, whichever is shorter
Plant and technical equipment	5 years or the term of the related management contract, whichever is shorter
Office furniture and equipment	3 to 5 years
Transportation equipment	5 years

The EUL and depreciation and amortization method are reviewed periodically to ensure that the period and method of depreciation and amortization are consistent with the expected pattern of economic benefits from items of property, plant and equipment.

Construction in progress represents property, plant and equipment under construction and is stated at cost including costs of construction and other direct costs. Construction in progress is not depreciated until such time that the relevant assets are in the location and condition necessary for it to be capable of operating in the manner intended by management.

When property, plant and equipment is retired or otherwise disposed of, the cost and the related accumulated depreciation and amortization and accumulated impairment, if any, are removed from the accounts and any resulting gain or loss is credited to or charged against current operations.

Service Concession Assets and Obligations

The Group accounts for its concession arrangements with MWSS, PGL, TIEZA, CDC, OWD, CWD, and BuWD; and JVAs with PAGWAD, TnWD, LWD, and CCWD, under the Intangible Asset model as it receives the right (license) to charge users of public service. Under the Group's concession agreements, the Group is granted the sole and exclusive right and discretion during the concession period to manage, occupy, operate, repair, maintain, decommission and refurbish the identified facilities required to provide water services. The legal title to these assets shall transfer to MWSS, PGL, TIEZA, CDC, OWD, CWD, BuWD, PAGWAD, TnWD, LWD, and CCWD at the end of the concession period.

On the other hand, the concession arrangements with MCWD and TWD are accounted for under the Financial Asset model as it has an unconditional contractual right to receive cash or other financial asset for its construction services from or at the direction of the grantor. Under the concession arrangement, Cebu Water and Tagum Water are awarded the right to deliver bulk water supply to the grantor for a specific period of time under the concession period.

During the construction phase of the arrangements, the Group's contract asset (representing its accumulating right to be paid for rehabilitation works) is presented as part of "Service concession assets" (SCA) for Intangible Asset model and under "Contract Assets" for Financial Asset model. The SCA also include the present value of the service concession obligations assumed by the Parent Company at drawdown date and other local component costs and cost overruns paid by the Group, as well as additional costs of rehabilitation works incurred.

Amortization of SCA commences when the SCA are available for use and are calculated on a straight-line basis over the remaining concession period. Beginning May 1, 2017, the Parent Company, Boracay Water, Clark Water, and Laguna Water's water and used water assets are amortized using the units-of-production (UOP) method over the estimated total billable volume for the remaining period of the respective concession agreements to better reflect the usage of these assets, which is directly related to its estimated total billable volume and is aligned with industry practice. This change in method resulted to a ₱553.96 million reduction of amortization expense from May 1 to December 31, 2017.

Investments in Associates

An associate is an entity in which the Group has significant influence and which is neither a subsidiary. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over these policies.

The considerations made in determining significant influence is similar to those necessary to determine control over subsidiaries.

The Group's investments in its associates are accounted for using the equity method.

Under the equity method, an investment in an associate is initially recognized at cost. The carrying amount of the investment is adjusted to recognize changes in the Group's share of net assets of the associate since the acquisition date. Goodwill relating to the associate is included in the carrying amount of the investment and is not tested for impairment separately.

The consolidated statement of comprehensive income reflects the Group's share of the results of operations of the associate. Any change in the other comprehensive income of those investees is presented as part of the Group's other comprehensive income. In addition, when there has been a change recognized directly in the equity of the associate, the Group recognizes its share of any changes, when applicable, in the consolidated statement of changes in equity. Unrealized gains and losses resulting from transactions between the Group and the associate are eliminated to the extent of the interest in the associate.

The aggregate of the Group's share of profit or loss of an associate is shown on the face of the consolidated statement of comprehensive income outside of operating profit and represents profit or loss after tax and noncontrolling interests in the subsidiaries of the associate. If the Group's share of losses of an associate equals or exceeds its interest in the associate, the Group discontinues recognizing its share of further losses.

The financial statements of the associate are prepared for the same reporting period as the Group. When necessary, adjustments are made to bring the accounting policies in line with those of the Group.

After application of the equity method, the Group determines whether it is necessary to recognize an impairment loss on its investment in its associate. At each reporting date, the Group determines whether there is objective evidence that the investment in the associate is impaired. If there is such evidence, the Group calculates the amount of impairment as the difference between the recoverable amount of the associate and its carrying value and then recognizes the loss as "Other income (loss)" in the consolidated statement of comprehensive income.

Upon loss of significant influence over the associate, the Group measures and recognizes any retained investment at its fair value. Any difference between the carrying amount of the associate upon loss of significant influence and the fair value of the retained investment and proceeds from disposal is recognized in profit or loss.

Business Combinations and Goodwill

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as the aggregate of the consideration transferred, measured at acquisition date fair value, and the amount of any noncontrolling interest in the acquiree. For each business combination, the Group elects whether to measure the noncontrolling interest in the acquiree either at fair value or at the proportionate share of the acquiree's identifiable net assets. Acquisition-related costs are expensed as incurred.

When the Group acquires a business, it assesses the financial assets and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic circumstances and pertinent conditions as at the acquisition date. This includes the separation of embedded derivatives in host contracts by the acquiree.

If the business combination is achieved in stages, the acquisition date fair value of the acquirer's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date through profit or loss included under "Remeasurement gain (loss) arising from business combination."

Any contingent consideration to be transferred by the acquirer will be recognized at fair value at the acquisition date. Contingent consideration classified as equity is not remeasured and its subsequent settlement is accounted for within equity. Contingent consideration classified as an asset or liability that is a financial instrument and within the scope of PFRS 9, is measured at fair value with the changes in fair value recognized in the statement of profit or loss in accordance with PFRS 9. Other contingent consideration that is not within the scope of PFRS 9 is measured at fair value at each reporting date with changes in fair value recognized in profit or loss.

If the initial accounting for a business combination can be determined only provisionally by the end of the period in which the combination is effected because either the fair values to be assigned to the acquiree's identifiable assets, liabilities or contingent liabilities or the cost of the combination can be determined only provisionally, the acquirer shall account for the combination using those provisional values. The acquirer shall recognize any adjustments to those provisional values as a result of completing the initial accounting within twelve (12) months of the acquisition date as follows: (i) the carrying amount of the identifiable asset, liability or contingent liability that is recognized or adjusted as a result of completing the initial accounting shall be calculated as if its fair value at the acquisition date had been recognized from that date; (ii) goodwill or any gain recognized shall be adjusted by an amount equal to the adjustment to the fair value at the acquisition date of the identifiable asset, liability or contingent liability being recognized or adjusted; and (iii) comparative information presented for the periods before the initial accounting for the combination is complete shall be presented as if the initial accounting has been completed from the acquisition date.

Goodwill is initially measured at cost where cost is the excess of the aggregate of the consideration transferred and the amount recognized for noncontrolling interest over the net identifiable assets acquired and liabilities assumed. If the fair value of the net assets acquired is in excess of the aggregate consideration transferred, the Group re-assesses whether it has correctly identified all of the assets acquired and all of the liabilities assumed and reviews the procedures used to measure the amounts to be recognized at the acquisition date. If the reassessment still results in an excess of the fair value of net assets acquired over the aggregate consideration transferred, then the gain is recognized in profit or loss and included under "Other income (expenses)."

Following initial recognition, goodwill is measured at cost less any accumulated impairment loss. Goodwill is reviewed for impairment, annually or more frequently if events or changes in circumstances indicate that the carrying value may be impaired. For purposes of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's cash-generating units (CGUs), or groups of CGUs, that are expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the Group are assigned to those units or groups of units. Each unit or group of units to which the goodwill is allocated should:

- represent the lowest level within the Group at which the goodwill is monitored for internal management purposes; and
- not be larger than an operating segment determined in accordance with PFRS 8, *Operating Segments*.

Occasionally, an acquirer will make a bargain purchase, which is a business combination in which the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed measured exceeds the aggregate of the consideration transferred.

Before recognizing a gain on a bargain purchase, the acquirer shall reassess whether it has correctly identified all of the assets acquired and all of the liabilities assumed and shall recognize any additional assets or liabilities that are identified in that review. The acquirer shall then review the procedures used to measure the amounts to be recognized at the acquisition date for all of the following:

a. the identifiable assets acquired and liabilities assumed;
b. the noncontrolling interest in the acquiree, if any;
c. for a business combination achieved in stages, the acquirer's previously held equity interest in the acquiree; and
d. the consideration transferred.

If that excess remains after applying the requirements above, the acquirer shall recognize the resulting gain in profit or loss on the acquisition date. The gain shall be attributed to the acquirer.

Where goodwill forms part of a CGU (or group of CGUs) and part of the operation within that unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on disposal of the operation. Goodwill disposed of in these circumstances is measured based on the relative values of the operation disposed of and the portion of the CGU retained.

Water Rights

Water rights are accounted for as an intangible asset with indefinite useful life. These pertain to the permit acquired separately, and are recognized as an intangible asset as these were issued by the National Water Resources Board (NWRB) without an explicit provision on the period of effectivity. Costs incurred for the acquisition of water rights are capitalized and measured on initial recognition at cost.

Presidential Decree No. 1067, also known as the Water Code, states that water permits shall continue to be valid as long as water is beneficially used. The rights may be suspended or revoked based on certain grounds such as non-compliance with approved plans and specifications or schedules of water distribution, and use of water for a purpose other than that for which it was granted.

All water permits are subject to modification or cancellation by the NWRB, after due notice and hearing, in favor of a project of greater beneficial use or for multi-purpose development, and a water permittee who suffers thereby shall be duly compensated by the entity or person in whose favor the cancellation was made.

Impairment of Nonfinancial Assets

This accounting policy applies primarily to the Group's property, plant, and equipment, SCA, contract assets representing SCA under construction, right-of-use assets, investments in associates, water rights, and deposits under other current and noncurrent assets. The Group assesses, at each reporting date, these nonfinancial assets, excluding goodwill and water rights, whether there is an indication that an asset may be impaired. If any such indication exists, or when annual impairment testing for an asset is required, the Group makes an estimate of the asset's recoverable amount.

Water rights with indefinite useful life are tested for impairment annually either individually or at the CGU level. Such intangibles are not amortized. The life of an intangible asset with an indefinite life is reviewed annually to determine whether the indefinite life continues to be supportable. If not, the change in the life from indefinite to finite is made on a prospective basis.

An asset's recoverable amount is calculated as the higher of the asset's or CGU's fair value less cost of disposal and its value in use and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. When the carrying amount of an asset exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount.

In assessing value in use, the estimated future cash flows are discounted to their present value using a post-tax discount rate that reflects current market assessment of the time value of money and the risks specific to the asset. In determining fair value less costs of disposal, recent market transactions are taken into account. If no such transactions can be identified, an appropriate valuation model is used. These calculations are corroborated by valuation multiples or other fair value indicators. Impairment

losses of continuing operations are recognized in profit or loss in those expense categories consistent with the function of the impaired asset.

A previously recognized impairment loss is reversed only if there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognized. If that is the case, the carrying amount of the asset is increased to its recoverable amount. That increased amount cannot exceed the carrying amount that would have been determined, net of depreciation and amortization, had no impairment loss been recognized for the asset in prior years. Such reversal is recognized in profit or loss unless the asset is carried at revalued amount, in which case the reversal is treated as revaluation increase. After such a reversal, the depreciation and amortization charge is adjusted in future periods to allocate the asset's revised carrying amount, less any residual value, on a systematic basis over its remaining useful life.

Leases (Upon Adoption of PFRS 16, Effective January 1, 2019)

The Group assesses at contract inception whether a contract is, or contains, a lease. That is, if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Group as a Lessee
The Group applies a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets. The Group recognizes lease liabilities to make lease payments and right-of-use assets representing the right to use the underlying assets.

a. *Right-of-use assets*
The Group recognizes right-of-use assets at the commencement date of the lease (i.e., the date the underlying asset is available for use). Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognized, initial direct costs incurred, lease payments made at or before the commencement date less any lease incentives received and estimate of costs to be incurred by the lessee in dismantling and removing the underlying asset, restoring the site on which it is located or restoring the underlying asset to the condition required by the terms and conditions of the lease, unless those costs are incurred to produce inventories. Right-of-use assets are depreciated on a straight-line basis over the shorter of the lease term and the estimated useful lives of the assets. The right-of-use assets are also subject to impairment.

b. *Lease liabilities*
At the commencement date of the lease, the Group recognizes lease liabilities measured at the present value of lease payments to be made over the lease term. The lease payments include fixed payments (including in-substance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for terminating the lease, if the lease term reflects the Group exercising the option to terminate. Variable lease payments that do not depend on an index or a rate are recognized as expenses (unless they are incurred to produce inventories) in the period in which the event or condition that triggers the payment occurs.

In calculating the present value of lease payments, the Group uses its incremental borrowing rate at the lease commencement date because the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is remeasured if there is a modification, a change in the lease term, a change in the lease payments (e.g., changes to future payments resulting from a change in an index or rate used to determine such lease payments) or a change in the assessment of an option to purchase the underlying asset.

c. *Short-term leases and leases of low-value assets*
The Group applies the short-term lease recognition exemption to its short-term leases of office spaces (i.e., those leases that have a lease term of 12 months or less from the commencement date and do not contain a purchase option). It also applies the lease of low-value assets recognition exemption to leases of office equipment that are considered to be low value. Lease payments on short-term leases and leases of low value assets are recognized as expense on a straight-line basis over the lease term.

Leases (Prior to Upon Adoption of PFRS 16)
The determination of whether an arrangement is, or contains a lease, is based on the substance of the arrangement at inception date of whether the fulfillment of the arrangement is dependent on the use of a specific asset or assets or the arrangement conveys a right to use the asset, even if that right is not explicitly specified in an arrangement.

A reassessment is made after the inception of the lease only if one of the following applies:

a. there is a change in contractual terms, other than a renewal of or extension of the arrangement;
b. a renewal option is exercised or extension granted, unless the term of the renewal or extension was initially included in the lease term;
c. there is a change in the determination of whether fulfillment is dependent on a specified asset; or
d. there is a substantial change to the asset.

Where reassessment is made, lease accounting shall commence or cease from the date when the change in circumstances gave rise to the reassessment scenarios (a), (c) or (d) and at the date of renewal or extension period for scenario (b).

A lease where the lessor retains substantially all the risks and benefits of ownership of the asset is classified as an operating lease.

Revenue Recognition (Upon the Adoption of PFRS 15, Effective January 1, 2018)
Revenue from contracts with customers is recognized when control of the goods or services are transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services. The Group has generally concluded that it is the principal in its revenue arrangements. The following specific recognition criteria must also be met before revenue is recognized.

Revenue recognized over time using output method

The Group recognizes revenue from water and sewerage services, environmental charge, operation and maintenance services and performance fees over time using output method. As a practical expedient allowed under PFRS 15, the Group recognizes revenue in the amount to which the Group has a right to invoice since the Group bills a fixed amount for every cubic meter of water delivered or NRW recovered.

- *Water and sewer revenue*
  Water and sewer revenue are recognized over time as the customer receives and consumes the benefit from the performance of the related water and sewerage services. Water and sewerage are billed every month according to the bill cycles of the customers. As a result of bill cycle cut-off, monthly service revenue earned but not yet billed at end of the month are estimated and accrued. These estimates are based on historical consumption of the customers. Also, twenty percent (20%) of water revenue is recognized by the Parent Company as environmental charge.

- *Operation and maintenance services*
  Revenue from operation and maintenance services is recognized over time as the operation, maintenance and management services are rendered for water and waste water facilities of Bonifacio Water Corporation (BWC).

- *Performance fees*
  Performance fees are recognized as revenue over time as the NRW are recovered as agreed in the NRWRSA with ZCWD.

The Group has determined that the output method is the appropriate method in measuring the progress of the connection services, project management services, and pipeworks and integrated used water services since this depicts the Group's performance in managing and providing service connection from water and used water facilities to the developments.

- *Connection fees*
  Connection fees are amounts paid by customers in exchange for the set-up of a connection from the customer's establishment to the Group's water or sewer network. Revenue from connection fees is recognized over time using the output method based on time elapsed over the period when the related water and sewer services are expected to be provided.

- *Supervision fees*
  Supervision fees arise from MWPVI, Aqua Centro, EcoWater, and Laguna Water's assurance of potable water and effective used water services for new developments, and performance of certain functions which includes, but is not limited to, the provision of design and project management services in the development of water and used water facilities. Revenue from supervision fees is recognized over time using an output method. Under this method, progress is measured using survey of performance completed to date and milestone reached. This is based on the work accomplishment report prepared by the project contractor and reviewed and approved by the project management head.

- *Revenue from pipeworks and integrated used water services*
  Revenue from pipeworks and integrated used water services is recognized over time as the water and wastewater network related services are rendered using an output method. Under this method, progress is measured using survey of performance completed to date and milestone reached. This is based on the work accomplishment report prepared by the project contractor as approved by the project management head.

Revenue recognized over time using input method
The Group determined that the input method is the appropriate method in measuring progress of the rehabilitation works, construction revenue, and service fees because there is a direct relationship between the Group's effort (i.e., actual cost incurred incurred) and the transfer of service to the customer.

- *Revenue from rehabilitation works and Cost of rehabilitation works*
  Revenue from rehabilitation works is equivalent to the related cost for the rehabilitation works covered by the service concession arrangements which is recognized as part of contract assets included under SCA or concession financial receivables and pertain to revenue from construction or upgrade services. Revenue from rehabilitation works is recognized over time, using input method. Under this method, progress is measured by reference to the actual costs incurred to date.

- *Construction revenue*
  Construction revenue arise from the NRWRSA with ZCWD for the establishment of district metering areas. Revenue from construction services is recognized over time, using input method. Under this method, progress is measured based on actual costs incurred on materials, labor, and overhead relative to the total project costs.

- *Service fees*
  Service fees for technical assistance extended to ZCWD are recognized over time, using input method, when the related services have been rendered to the ZCWD. Under this method, progress is measured based on actual costs incurred on manpower and overhead relative to the total project costs.

Revenue recognized at a point in time

- *Distributors' fee*
  Distributors' fee is recognized as revenue at a point in time when control of the trade assets has been transferred to the distributor, generally upon delivery of the related assets.

- *Revenue from packaged water*
  Revenue from packaged water and other water related products is recognized at the point in time when control of the goods is transferred to the distributor, generally upon receipt of the related product, to the customer.

- *Other operating income*
  Other customer related fees such as reconnection and disconnection fees, income from customers late payments, income from septic sludge disposal, and income from bacteriological water analysis are recognized at a point in time when the control over these good or services have been transferred to the customer.

Contract Balances
Receivables
A receivable represents the Group's right to an amount of consideration that is unconditional (i.e., only the passage of time is required before payment of the consideration is due).

Contract assets
A contract asset is the right to consideration in exchange for goods or services transferred to the customer. If the Group performs by transferring goods or services to a customer before the payment is due, a contract asset is recognized for the earned consideration that is conditional.

Contract liabilities
A contract liability is the obligation to transfer goods or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customer. If a customer pays consideration before the Group transfers goods or services to a customer, a contract liability is recognized when the payment is made or the payment is due (whichever is earlier). Contract liabilities are recognized as revenue when the Group performs under the contract.

Interest Income
Interest income is recognized as it accrues, taking into account the effective yield of the assets.

For all financial instruments measured at amortized cost, interest income is recorded using the EIR. EIR is the rate that exactly discounts the estimated future cash payments or receipts over the expected life of the financial instrument or a shorter period, where appropriate, to the net carrying amount of the financial asset or liability. Interest income is included in finance income in the consolidated statement of comprehensive income.

Revenue Recognition (Prior to Adoption of PFRS 15)
Revenue is recognized to the extent that it is probable that the economic benefits will flow to the Group and the revenue can be reliably measured, regardless of when the payment is made. Revenue is measured at the fair value of the consideration received or receivable, taking into account contractually defined terms of payment and excluding taxes or duty. The following specific recognition criteria must also be met before revenue is recognized.

Water and sewer revenue
Water and sewer revenue are recognized when the related water and sewerage services are rendered. Water and sewerage are billed every month according to the bill cycles of the customers. As a result of bill cycle cut-off, monthly service revenue earned but not yet billed at end of the month are estimated and accrued. These estimates are based on historical consumption of the customers. Also, twenty percent (20%) of water revenue is recognized by the Parent Company as environmental charge.

Connection fees
Revenue from connection fee is recognized outright upon when the customer's establishment is connected to the Group's water or sewer network.

Revenue from rehabilitation works and Cost of rehabilitation works
Revenue from rehabilitation works is recognized and measured by the Group in accordance with PAS 11 for the construction and PAS 18 for the service. This includes revenue from rehabilitation works which is equivalent to the related cost for the rehabilitation works covered by the service concession arrangements which is recognized as part of SCA.

Supervision fees
Supervision fees are recognized using the percentage of completion method of accounting, measured principally on the basis of the physical proportion of the contract work to the estimated completion of a project.

Construction revenue
Construction revenue arising from the NRWRSA with ZCWD is recognized by reference to the stage of completion of the construction activity at the end of the reporting period.

Revenue from pipeworks and integrated used water services
Revenue from pipeworks and integrated used water services is recognized when the related water and wastewater network related services are rendered.

Distributors' fee
Distributors' fee is recognized when significant risk and rewards of ownership of trade assets have been transferred to the distributor.

Revenue from packaged water
Revenue from packaged water and other water related products is recognized when the significant risks and rewards of ownership have been transferred to the customer. The timing of transfers of risks and rewards varies depending on the individual terms of the contract of sale but usually occurs when the customer receives the product.

Operation and maintenance services
Service fee income is recognized when the operation, maintenance and management services have been rendered for water and waste water facilities of BWC.

Performance fees
Performance fees are recognized when the NRW has been recovered based on specific targets and schedule as agreed in the NRWRSA with ZCWD.

Service fees
Service fees for technical assistance extended to ZCWD are recognized when the related services have been rendered.

Other operating income
Other customer related fees such as reconnection and disconnection fees, income from customers late payments, income from septic sludge disposal, and income from bacteriological water analysis are recognized when these services have been rendered.

Interest income
Interest income is recognized as it accrues, taking into account the effective yield of the assets.

For all financial instruments measured at amortized cost, interest income is recorded using the effective interest rate. EIR is the rate that exactly discounts the estimated future cash payments or receipts over the expected life of the financial instrument or a shorter period, where appropriate, to the net carrying amount of the financial asset or liability. Interest income is included in finance income in the consolidated statement of comprehensive income.

Cost of Services and Operating Expenses
Costs and expenses are recognized in profit or loss when a decrease in future economic benefits related to a decrease in an asset or an increase in a liability has arisen that can be measured reliably. These are recognized:

- on the basis of a direct association between the costs incurred and the earning of specific items of income;
- on the basis of systematic and rational allocation procedures when economic benefits are expected to arise over several accounting periods and the association can only be broadly or indirectly determined; or,
- immediately when expenditure produces no future economic benefits or when, and to the extent that, future economic benefits do not qualify or cease to qualify, for recognition in the consolidated statement of financial position as an asset.

Cost of services and operating expenses are measured at the amount paid or payable.

Foreign Currency-Denominated Transactions
Foreign exchange differentials arising from foreign currency transactions of the Parent Company's loans and concession fees are credited to or charged against operations. For the Parent Company, as approved by the MWSS BOT under Amendment No.1 of the Concession Agreement, the following will be recovered or refunded through billings to customers:

a. restatement of foreign currency-denominated loans;
b. difference of actual and twelve (12)-month projected concession fee payments against the amounts of concession fees translated using the base exchange rate assumed in the business plan approved every rate rebasing exercise. The current base exchange rates are ₱53.16:US$1.00, ₱0.475: ¥1.00, ₱62.156: €1.00 based on the latest rate rebasing exercise effective January 1, 2018;
c. difference of actual and twelve (12)-month projected interest payments translated using the exchange spot rate on settlement date and average forex of the month immediately preceding the cut-off information date, respectively, against the amount of interest translated at drawdown rate; and
d. difference of actual and twelve (12)-month projected payments of other financing charges relating to foreign currency-denominated loans translated at exchange spot rate on settlement date and average forex of the month immediately preceding the cut-off information date, against the amount of other financing charges translated at drawdown rate.

For Boracay Water, its concession agreement with TIEZA allows for the recovery of the following from its customers:

a. restatement of foreign currency-denominated loans;
b. excess of actual interest payments translated at exchange spot rates on settlement dates over the amounts of interest translated at agreed base rate; and
c. excess of actual payments of other financing charges relating to foreign currency-denominated loans translated at exchange spot rates on settlement dates over the amount of other financing charges translated at agreed base rate.

The functional and presentation currency of the Parent Company and its Philippine subsidiaries is the Philippine Peso. Each entity in the Group determines its own functional currency and items included in the separate financial statements of each entity are measured using that functional currency. Transactions in foreign currencies are initially recorded by the Group's entities at their respective functional currency spot rates at the date the transaction first qualifies for recognition. Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency spot rate of exchange ruling at the reporting date. All differences are taken to profit or loss, with the exception of differences on foreign currency borrowings that provide a hedge against a net investment in a foreign entity. These are recognized in OCI until the disposal of the net investment, at which time they are recognized in profit or loss. Tax charges and credits attributable to exchange differences on those borrowings are also dealt with in equity. Nonmonetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate as at the date of initial transaction. Nonmonetary items measured at fair value in a foreign currency are translated using the exchange rate at the date when the fair value was determined.

In view of the automatic reimbursement mechanism, the Group recognizes deferred FCDA (included as part of "Other noncurrent assets" in the consolidated statement of financial position) for both the realized and unrealized foreign exchange gains and losses. Other water revenue-FCDA is credited (debited) upon recovery (refund) of realized foreign exchange losses (gains). The write-off or reversal of the deferred FCDA pertaining to concession fees will be made upon determination of the rebased foreign exchange rate, which is assumed in the business plan approved by the MWSS RO during the latest Rate Rebasing exercise, unless indication of impairment of the deferred FCDA would be evident at an earlier date.

The functional currency of MWAP, MWSAH, TDWH, KDWH, MSEA, and MWTH is the United States Dollar (US$ or USD), while Asia Water, Thu Duc Water, Kenh Dong Water, Saigon Water and Cu Chi Water's functional currency is the Vietnamese Dong (VND), PTMWI and PTSTU's is the Indonesian Rupiah (IDR), and MWTC and East Water's is the Thailand Baht (THB). As of reporting date, the assets and liabilities of these subsidiaries and associates are translated into the presentation currency of the Group at the rate of exchange at the reporting date and their profit and loss accounts are translated at the weighted average exchange rates for the year. The exchange differences arising on the translation are recognized in OCI and reported as "Cumulative translation adjustment", a separate component of equity. On disposal of a foreign entity, the "Cumulative translation adjustment" relating to that particular foreign operation shall be recognized in profit or loss.

Borrowing Costs

Borrowing costs that are directly attributable to the acquisition, development, improvement and construction of fixed assets (including costs incurred in connection with rehabilitation works) that necessarily takes a substantial period of time to get ready for its intended use are recorded as property, plant and equipment or SCA, as applicable. All other borrowing costs are expensed in the period they occur. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

The interest capitalized is calculated using the Group's weighted average cost of borrowings after adjusting for borrowing associated with specific developments. Where borrowings are associated with specific developments, the amounts capitalized is the gross interest incurred on those borrowings less any investment income arising on their temporary investment.

The capitalization of those borrowing costs commences when the activities to prepare the asset are in progress and expenditures and borrowing costs are being incurred. Capitalization of borrowing costs ceases when substantially all activities necessary in preparing the related assets for their intended use are complete. Borrowing costs include interest charges and other related financing charges incurred in connection with the borrowing of funds. Premiums and/or discounts on long-term debt are included in the "Short-term and Long-term debt" account in the consolidated statement of financial position and are amortized using the effective interest rate method.

Provisions
A provision is recognized when the Group has: (a) a present obligation (legal or constructive) as a result of a past event; (b) it is probable (i.e. more likely than not) that an outflow of resources embodying economic benefits will be required to settle the obligation; and (c) a reliable estimate can be made of the amount of the obligation. If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessment of the time value of money and, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognized as an interest expense. Where the Group expects a provision to be reimbursed, the reimbursement is not recognized as a separate asset and only when the reimbursement is virtually certain. Provisions are reviewed at each reporting date and adjusted to reflect the current best estimate.

Contingencies
Contingent liabilities are not recognized in the consolidated financial statements. These are disclosed unless the possibility of an outflow of resources embodying economic benefits is remote. Contingent assets are not recognized in the consolidated financial statements but disclosed when an inflow of economic benefits is probable.

Defined Benefit Plan
The net defined benefit liability or asset is the aggregate of the present value of the defined benefit obligation at the end of the reporting period reduced by the fair value of plan assets (if any).

The cost of providing benefits under the defined benefit plans is actuarially determined using the projected unit credit method.

Defined benefit costs comprise the following:

a. service cost,
b. net interest on the net defined benefit liability or asset, and
c. remeasurements of net defined benefit liability or asset.

Service costs which include current service costs, past service costs, and gains or losses on non-routine settlements are recognized as expense in profit or loss. Past service costs are recognized when plan amendment or curtailment occurs. These amounts are calculated periodically by independent qualified actuaries.

Net interest on the net defined benefit liability or asset is the change during the period in the net defined benefit liability or asset that arises from the passage of time which is determined by applying the discount rate based on government bonds to the net defined benefit liability or asset.

Net interest on the net defined benefit liability or asset is recognized as expense or income in the consolidated statement of comprehensive income.

Remeasurements comprising actuarial gains and losses and return on plan assets (excluding net interest on defined benefit liability or asset) are recognized immediately in other comprehensive income in the period in which they arise. Remeasurements are not reclassified to profit or loss in subsequent periods.

Plan assets are assets that are held by a long-term employee benefit fund or qualifying insurance policies. Plan assets are not available to the creditors of the Group, nor can they be paid directly to the Group. The fair value of plan assets is based on market price information. When no market price is available, the fair value of plan assets is estimated by discounting expected future cash flows using a discount rate that reflects both the risk associated with the plan assets and the maturity or expected disposal date of those assets (or, if they have no maturity, the expected period until the settlement of the related obligations). If the fair value of the plan assets is higher than the present value of the defined benefit obligation, the measurement of the resulting defined benefit asset is limited to the present value of economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan.

The Group's right to be reimbursed of some or all of the expenditure required to settle a defined benefit obligation is recognized as a separate asset at fair value when and only when reimbursement is virtually certain.

Termination Benefit
Termination benefits are employee benefits provided in exchange for the termination of an employee's employment as a result of either an entity's decision to terminate an employee's employment before the normal retirement date or an employee's decision to accept an offer of benefits in exchange for the termination of employment.

A liability and expense for a termination benefit is recognized at the earlier of when the entity can no longer withdraw the offer of those benefits and when the entity recognizes related restructuring costs. Initial recognition and subsequent changes to termination benefits are measured in accordance with the nature of the employee benefit, as either post-employment benefits, short-term employee benefits, or other long-term employee benefits.

Short-term Employee Benefits
Short-term employee benefits include items such as salaries and wages, social security contributions, and nonmonetary benefits, if expected to be settled wholly within twelve (12) months after the end of the reporting period in which the employees rendered the related services. Short-term employee benefits are recognized as expense as incurred. When an employee has rendered service to the Group during the reporting period, the Group recognizes the undiscounted amount of short-term employee benefits expected to be paid in exchange for that service as a liability (accrued expense), after deducting any amount already paid.

Employee Leave Entitlement
Employee leave entitlements are recognized as a liability when they are accrued to the employees. The undiscounted liability for employee leaves is recognized for services rendered by employees up to the end of the reporting period.

Share-Based Payment
Employee share purchase plan
The Parent Company has an employee stock ownership plan (ESOWN) which allows the grantees to purchase the Company's shares at a discounted price. The Parent Company recognizes stock compensation expense over the holding period. The Parent Company treats its ESOWN plan as option exercisable within a given period. These are accounted for similar to the PFRS 2, *Share-based Payment*, options. Dividends paid on the awards that have vested are deducted from equity and those paid on awards that are unvested are charged to profit or loss. For the unsubscribed shares where the employees still have the option to subscribe in the future, these are accounted for as "Common stock options outstanding" in the consolidated statement of financial position.

Equity
Capital stock is measured at par value for all shares subscribed, issued and outstanding. When the Group issues more than one class of stock, a separate account is maintained for each class of stock and the number of shares issued.

When the shares are sold at premium, the difference between the proceeds at the par value is credited to "Additional paid-in capital" account. Direct costs incurred related to equity issuance are chargeable to "Additional paid-in capital" account. If additional paid-in capital is not sufficient, the excess is charged against retained earnings. When the Group issues more than one class of stock, a separate account is maintained for each class of stock and the number of shares issued.

Subscriptions receivable pertains to the uncollected portion of the subscribed shares.

Retained earnings represent accumulated earnings of the Group. Appropriated retained earnings are set aside for future business expansions. The Parent Company's BOD declares dividends from the unappropriated portion of its retained earnings.

Other equity reserves pertain to gain from sale of investments in a subsidiary by the Parent Company that did not result to a loss of control.

Taxes
VAT
Input VAT pertains to the 12% indirect tax paid by the Group in the course of the Group's trade or business on local purchase of goods or services. Deferred input VAT pertains to input VAT on accumulated purchases of property, plant and equipment and service concession assets for each month amounting to ₱1 million or more. This is amortized over five (5) years or the life of the property, plant and equipment or service concession assets, whichever is shorter, in accordance with the Bureau of Internal Revenue (BIR) regulation.

Output VAT pertains to the 12% tax due on the local sale of goods and services by the Group.

If at the end of any taxable month, the output VAT exceeds the input VAT, the outstanding balance is included under "Trade payables" in the "Accounts and other payables" account. If the input VAT exceeds the output VAT, the excess shall be carried over to the succeeding months and included under the "Other current assets" account.

Current income tax
Current income tax assets and liabilities are measured at the amount expected to be recovered from or paid to the taxation authorities. The tax rates and tax laws used to compute the amount are those that have been enacted or substantively enacted at the reporting date.

Deferred tax
Deferred tax is provided, using the liability method, for all temporary differences, with certain exceptions, between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes at the reporting date.

Deferred tax liabilities are recognized for all taxable temporary differences, except:

- When the deferred tax liability arises from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination, and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss.

- In respect of taxable temporary difference associated with investments in subsidiaries and associates, when the timing of the reversal of the temporary difference can be controlled and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax assets are recognized for all deductible temporary differences, the carryforward of unused tax credits and any unused tax losses. Deferred tax assets are recognized to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carryforward of unused tax credits and unused tax losses can be utilized, except:

- When the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss.
- In respect of deductible temporary differences associated with investments in subsidiaries and associates, deferred tax assets are recognized only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilized.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable income will be available to allow all or part of the deferred tax assets to be utilized. Unrecognized deferred tax assets are reassessed at each reporting date and are recognized to the extent that it has become probable that future taxable income will allow all or part of the deferred tax assets to be recovered.

Deferred tax assets and liabilities are measured at the tax rate that is expected to apply in the year when the asset is realized or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted as of the reporting date.

Deferred tax relating to items recognized outside profit or loss is recognized outside profit or loss. Deferred tax items are recognized in correlation to the underlying transaction either in other comprehensive income or directly in equity.

The Group offsets deferred tax assets and deferred tax liabilities if and only if it has a legally enforceable right to set off current tax assets and current tax liabilities and the deferred tax assets and deferred tax liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities which intend either to settle current tax liabilities and assets on a net basis, or to realize the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

Earnings per Share (EPS)
Basic EPS is computed by dividing net income applicable to common stock by the weighted average number of common shares outstanding during the year and adjusted to give retroactive effect to any stock dividends declared, if any, during the period. The net income attributable to common stock is net of the dividends on preferred shares including the participating preferred shares' participation in earnings. The participating preferred shares participate in the earnings at a rate of 1/10 of the dividends paid to a common share.

Diluted EPS is computed by dividing earnings attributable to common shares by the weighted average number of common shares outstanding during the period, after giving retroactive effect of any stock dividends, if any, during the period and adjusted for the effect of dilutive options. Outstanding stock options will have a dilutive effect under the treasury stock method only when the average market price of the underlying common share during the period exceeds the exercise price of the option. Where the effects of the assumed exercise of all outstanding options have anti-dilutive effect, basic and diluted EPS are stated at the same amount.

Assets Held in Trust
Assets which are owned by MWSS, PGL, TIEZA, CDC, OWD, CWD, PAGWAD, TnWD, BuWD, LWD, and CCWD that are operated by the Group under the Group's concession agreements are not reflected in the consolidated statement of financial position but are considered as Assets Held in Trust (see Note 23).

Segment Reporting
The Group aggregates two or more operating segments into a single operating segment when separately, each operating segment has similar economic characteristics and service area. The Group aggregated its local and foreign subsidiaries into the Domestic Subsidiaries segment and Foreign Subsidiaries segment, even if the subsidiaries cater to different customers, since management has assessed that these entities have similar economic characteristics and service area. The Group considers the Manila Concession and Head Office, Domestic Subsidiaries, and Foreign Subsidiaries as its operating segments that are aggregated based on the geographical location and source of revenues. Financial information on business segments is presented in Note 24 to the consolidated financial statements.

Events after the Reporting Date
Any event after the reporting date up to the date of the auditors' report that provide additional information about the Group's financial position at the reporting date (adjusting events) is reflected in the consolidated financial statements. Any event after the reporting date that is not an adjusting event is disclosed in the consolidated financial statements when material.

3. Significant Accounting Judgments, Estimates and Assumptions

The preparation of the consolidated financial statements, in conformity with PFRS, requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and the accompanying notes. The estimates and assumptions used in the consolidated financial statements are based upon management's evaluation of relevant facts and circumstances as of the date of the consolidated financial statements. Actual results could differ from such estimates.

Management believes the following represent a summary of these significant estimates and judgments:

Judgments

In the process of applying the Group's accounting policies, management has made the following judgments, which have the most significant effect on the amounts recognized in the consolidated financial statements.

Service concession arrangements

In applying Philippine Interpretation IFRIC 12, *Service Concession Arrangements*, the Group has made a judgment that its concession agreements with MWSS, PGL, TIEZA, CDC, OWD, CWD, and BuWD; and JVAs with PAGWAD, TnWD, LWD, and CCWD, qualify under the Intangible Asset model as it receives the right (license) to charge users of public service (see Notes 2 and 10).

On the other hand, the Group has made a judgment that the bulk water sale and purchase agreements with MCWD and TWD qualify under the Financial Asset model as it has an unconditional contractual right to receive cash or other financial assets for its construction services directly from MCWD and TWD (see Notes 2 and 10).

Investments in associates

The Group has determined that it has significant influence over East Water despite holding less than 20.00% of East Water's outstanding shares of stock. The Group considers several factors including its representation in East Water's BOD, representation in East Water's Investment Committee, and its voting power through share ownership to determine the Group's power to participate in the financial and operating policy decisions of East Water.

As of December 31, 2019 and 2018, the Group owns 18.72% of East Water (see Note 11).

Revenue recognized using the input and output method

The Group recognizes revenue from rehabilitation works, construction revenue, and service fees using the input method while it recognizes supervision fees, and revenue from pipeworks, and revenue from integrated used water services using the output method. The input or output method of recognizing revenue over the period covered by the separate contracts with customers requires the Group to base the level of transfer of control over these services based on the Group's review and concurrence with work accomplishment reports prepared by project managers or submitted by independent project contractors.

Segment reporting

The Group aggregates two or more operating segments into a single operating segment when separately, each operating segment has similar economic characteristics and service area. The Group aggregated its local and foreign subsidiaries into the Domestic Subsidiaries segment and Foreign Subsidiaries segment even if it caters to different customers since management assessed that these entities have similar economic characteristics and service area. As of December 31, 2019 and 2018, the Group considers the Manila Concession and Head Office, Domestic Subsidiaries, and Foreign Subsidiaries as its operating segments that are aggregated based on the geographical location and source of revenues (see Note 24).

Determination of lease term of contracts with renewal and termination options – the Group as a lessee

The Group has several lease contracts that include extension and termination options. The Group applies judgement in evaluating whether it is reasonably certain whether or not to exercise the option to renew or terminate the lease. That is, it considers all relevant factors that create an economic incentive for it to exercise either the renewal or termination. After the commencement date, the Group reassesses the lease term if there is a significant event or change in circumstances that is within its control and affects its ability to exercise or not to exercise the option to renew or to terminate (e.g., construction of significant leasehold improvements or significant customization to the leased asset) (see Note 28).

Provisions and contingencies

The Group is currently involved in various legal proceedings and exposures in the ordinary conduct of business. The estimate of the probable costs for the resolution of these claims has been developed in consultation with internal and external counsels handling the defense in these matters and is based upon an analysis of potential results (see Note 29).

Use of Estimates

Key assumptions concerning the future and other sources of estimation uncertainty at the reporting date that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities are discussed below. Existing circumstances and assumptions about future developments, however, may change due to market changes or circumstances arising that are beyond the control of the Group. Such changes are reflected in the assumptions when they occur.

Revenue and cost recognition – rehabilitation works
The Group measures revenue from rehabilitation works at the fair value of the consideration received or receivable. The Group's revenue from rehabilitation works are recognized over time, using the input method. Under this method, progress is measured by reference to the actual costs incurred to date. Revenue from rehabilitation works recognized by the Group is equivalent to the costs of rehabilitation works incurred as these costs are recovered by the Group through its right to charge the customers. The Group's revenue from and cost of rehabilitation works amounted to ₱10,852.91 million, ₱9,661.98 million and ₱11,672.14 million in 2019, 2018 and 2017, respectively (see Notes 6 and 10).

Provision for ECLs of receivables from customers
The Group uses a provision matrix to calculate ECLs for receivables. The provision rates are based on days past due for groupings of various customer segments that have similar loss patterns.

The provision matrix is initially based on the Group's historical observed default rates. The Group calibrates the matrix to adjust the historical credit loss experience with forward-looking information. For instance, if forecast economic conditions (i.e., inflation) are expected to deteriorate over the next year which can lead to an increase in prices of basic goods and services, the historical default rates are adjusted. At every reporting date, the historical observed default rates are updated and changes in the forward-looking estimates are analyzed.

The assessment of the correlation between historical observed default rates, forecast economic conditions, and ECLs is a significant estimate. The amount of ECLs is sensitive to changes in circumstances and of forecast economic conditions. The Group's historical credit loss experience and forecast of economic conditions may also not be representative of customer's actual default in the future.

As of December 31, 2019 and 2018, allowance for expected credit losses of receivables from customers amounted to ₱1,300.64 million and ₱1,239.76 million, respectively (see Note 6).

Estimating the period over which control over services is transferred to the customer
For each group of similar customer contracts that result in revenues recognized over a period of the time, the Group makes an estimate of such period over which the Group transfers the control of the services provided to the customer. For revenue from rehabilitation works, construction revenue, service fees, supervision fees, and revenue from pipeworks and integrated used water services, the Group has determined that the period of revenue recognition is the term of the customer contract. For connection fees revenue, the Group has estimated that the customer receives control over the remaining concession period or remaining customer contract term.

Estimating useful lives of water rights
MW Consortium and MWPVI estimate that the useful lives of the water rights to be indefinite, considering that the water permits remain valid for as long as water is beneficially used. It is possible that future results of operations could be materially affected by changes in MW Consortium and MWPVI's estimates. The amounts and timing of recording of expenses for any period would be affected by changes in these factors and circumstances (see Note 12).

Impairment of nonfinancial assets
The Group assesses the impairment of nonfinancial assets (property, plant and equipment, SCA, contract assets representing SCA under construction, right-of-use assets, investments in associates, water rights, and deposits under other current and noncurrent assets) whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. The factors that the Group considers important which could trigger an impairment review include the following:

- significant underperformance relative to expected historical or projected future operating results;
- significant changes in the manner of usage of the acquired assets or the strategy for the Group's overall business;
- significant negative industry or economic trends;
- significant decline in net worth or market capitalization; and
- significant decline in distributed profits or increase in losses.

As described in the accounting policy, the Group estimates the recoverable amount as the higher of the fair value less cost to sell and value in use.

In determining the present value of estimated future cash flows expected to be generated from the continued use of the assets, the Group is required to make estimates and assumptions regarding the expected future cash generation of the assets, discount rates to be applied and the expected period of benefits.

In 2018, MWTS closed three (3) water bottling plants. As a result, the Group recognized impairment loss on its property, plant and equipment amounting to ₱71.43 million, representing the write-down of leasehold improvements and water treatment equipment to its recoverable amounts as of December 31, 2018 (see Note 9). This is presented as part of "Other income (loss)" in the consolidated statements of comprehensive income (see Note 17).

For the years ended December 31, 2019, 2018 and 2017, the Group recognized an impairment loss on its investment in Saigon Water amounting to ₱74.33 million, ₱65.41 million and nil, respectively, due to the decline in market capitalization. This is presented as part of "Other income (loss)" in the consolidated statements of comprehensive income (see Note 17).

As of December 31, 2019 and 2018, the Group has determined that there are no indicators of impairment on its investments in Thu Duc Water, Kenh Dong Water, Cu Chi Water, East Water, and PT STU (see Note 11).

As of December 31, 2019, the Parent Company's market capitalization significantly declined compared to its net book value, which decline was triggered by, among others, the ongoing discussion with MWSS on the provisions of the Concession Agreement identified for renegotiation and amendment (see Note 1). Management has determined that, as of December 31, 2019, the recoverable amount of the Parent Company's nonfinancial assets is higher than its net book value. Therefore, the Group did not recognize any impairment loss on the Parent Company's nonfinancial assets particularly its property and equipment and SCA amounting to ₱925.11 million and ₱81,052.26 million, respectively. The recoverable amount was determined by considering the fair value of property and equipment and SCA's current highest and best use. As of December 31, 2018, there were no other indicators of impairment on the Parent Company's property and equipment and SCA, and deposits under other current assets and other noncurrent assets (see Notes 9, 10, 11 and 12).

As of December 31, 2019 and 2018, except for the impairment recognized in MWTS in 2018, there were no indicators of impairment on the Group subsidiaries' property plant and equipment and SCA, right-of-use assets, water rights, and deposits under other current assets and other noncurrent assets (see Notes 9, 10, 11 and 12).

Impairment of goodwill on the acquisition of Clark Water
Goodwill impairment testing requires an estimation of the recoverable amount which is the fair value less cost to sell or value in use of the cash-generating units to which the goodwill is allocated. Estimating value in use amount requires management to make an estimate of the expected future cash flows for the cash-generating unit and to choose a suitable discount rate in order to calculate the present value of cash flows.

The Parent Company's impairment test for goodwill related to the acquisition of Clark Water is based on value in use calculations using a discounted cash flow model. The 2019 cash flows for the next twenty-one (21) years assume a steady growth rate and are derived from Clark Water's latest business plan. The Parent Company used the remaining concession life of Clark Water when testing for impairment. The recoverable amount is most sensitive to discount rate used for the discounted cash flow model. The post-tax discount rate applied to cash flow projections was 10.43% and 12.48% in 2019 and 2018, respectively.

The carrying value of goodwill on the acquisition of Clark Water in the consolidated statements of financial position amounted to ₱130.30 million as of December 31, 2019 and 2018. No impairment loss was recognized as a result of the impairment testing performed.

Estimating billable water volume
The SCAs related to the concession agreements of the Group are amortized using the UOP method based on actual billed volume and total estimated billable volume for the remaining period of the concession agreements. The Group considers factors such as population growth rate, supply and consumption, and service coverage, including ongoing and future expansions in estimating the total billable water volume over the remaining periods of the concession agreements. For the years ended December 31, 2019, 2018 and 2017, SCA amortization expense based on the UOP method are disclosed in Note 10.

Deferred FCDA
Under the concession agreements entered into by the Parent Company and Boracay Water with MWSS and TIEZA, respectively, the Parent Company and Boracay Water are entitled to recover (refund) foreign exchange losses (gains) arising from concession loans and any concessionaire loans. The Parent Company and Boracay Water recognized deferred FCDA (included as part of "Other noncurrent assets" in the consolidated statement of financial position) for both realized and unrealized foreign exchange gains and losses. Deferred FCDA is set up as an asset for the realized and unrealized exchange losses since this is a resource controlled by the Parent Company and Boracay Water as a result of past events and from which future economic benefits are expected to flow to the Parent Company and Boracay Water. Realized and unrealized foreign exchange gains, on the other hand, which will be refunded to the customers, are presented as liability. As of December 31, 2019 and 2018, the Parent Company and Boracay Water's deferred FCDA classified under "Other noncurrent assets" amounted to ₱1,669.04 million and ₱2,620.32 million, respectively (see Note 12).

The Group's deferred FCDA arises from a rate adjustment mechanism for the recovery or compensation on a current basis, subject to quarterly review and adjustment by MWSS or TIEZA, when necessary, of accrued foreign exchange gains and losses, arising from MWSS or TIEZA loans and concession loans used for capital expenditures and concession fee payments.

Deferred tax assets
The Group reviews the carrying amounts of deferred taxes at each reporting date and reduces deferred tax assets to the extent that it is no longer probable that sufficient taxable income will be available to allow all or part of the deferred tax assets to be utilized. Significant management judgement is required to determine the amounts that could be recognized, based upon the likely timing and the level of future taxable profits, together with future tax planning.

Also, the Group does not recognize certain deferred taxes on deductible temporary differences where doubt exists as to the tax benefits they will bring in the future (see Note 18).

Pension liabilities
The cost of defined benefit pension plans is determined using actuarial valuations. The actuarial valuation involves making various assumptions. These include the determination of the discount rates, future salary increases, mortality rates, incapacity rates, retirement rate, and termination rates. The amounts of defined benefit obligations are highly sensitive to changes due to the complexity of the valuation and its long-term nature. Discount rate, salary increase rate, retirement rate, and termination rate assumptions are reviewed at each reporting date. The net pension liability amounted to ₱194.19 million and ₱109.39 million as of December 31, 2019 and 2018, respectively (see Note 15).

In determining the appropriate discount rate, management considers the interest rates of government bonds that are denominated in the currency in which the benefits will be paid, with extrapolated maturities corresponding to the expected duration of the defined benefit obligation. Future salary increases are based on expected future inflation rates for the specific country. Retirement and termination rates are based on expected rates at which employees are assumed to retire or leave the employment of the Group.

Further details about the assumptions used are provided in Note 15.

Estimating the incremental borrowing rate for leases
The Group cannot readily determine the interest rate implicit in the lease, therefore, it used its incremental borrowing rate to measure its lease liabilities. The incremental borrowing rate is the rate of interest that the Group would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment. The incremental borrowing rate therefore reflects what the Group 'would have to pay', which requires estimation when no observable rates are available (such as for subsidiaries that do not enter into financing transactions) or when they need to be adjusted to reflect the terms and conditions of the lease (for example, when leases are not in the subsidiary's functional currency). The Group estimates its incremental borrowing rate using observable inputs (such as market interest rates) when available and is required to make certain entity-specific estimates (such as the subsidiary's stand-alone credit rating).

The Group's lease liabilities amounted to ₱308.48 million as of December 31, 2019 (see Note 28).

Estimating fair values for the purchase price allocation of East Water
The Group acquired shares of stocks of a company in Thailand in 2018. The fair value of the net assets of the investee company was determined using the multi-period excess earnings valuation method which assumed expected future earnings stream attributable to the identified income-generating asset discounted using the rate of return commensurate to the asset. The Group estimated the cash flows based on average life of the identified assets.

4. 2019 Business Combination and Goodwill

EDCG
On December 11, 2018, Aqua Centro entered into seven (7) APAs with EDCG's subsidiaries to acquire the subsidiaries' assets related to the provision of water service in ten (10) subdivisions in Imus, General Trias, and Naic in the province of Cavite. These subsidiaries are Earth Aspire Corporation, First Advance Development Corporation, Ambition Land Inc., Prosperity Builders Resources Inc., Tahanang Yaman Homes Corporation, Extraordinary Development Corp., and Earth + Style Corporation. As of December 31, 2018, Aqua Centro has taken over the operations of six (6) out of the ten (10) subdivisions.

On January 9, 2019, Aqua Centro paid 50.00% of the total contract price amounting to total consideration of ₱24.67 million while the balance was paid on November 28, 2019 after compliance with all conditions precedent to its APAs.

In 2019, Aqua Centro took over the operations of three (3) additional subdivisions. Aqua Centro shall operate the remaining one (1) subdivision once all the conditions precedent under the APAs have been fulfilled. As of December 31, 2019, Aqua Centro is operating nine (9) out of the ten (10 subdivisions) covered by its APAs.

On December 11, 2018, Laguna Water entered into four (4) APAs with EDCG's subsidiaries to acquire the subsidiaries' assets related to or used in its water service provision operations in Biñan, Laguna. The APAs are with the following EDCG subsidiaries, namely, Earth Aspire Corporation, Earth Prosper Corporation, Earth and Style Corporation and Extraordinary Development Corp.

On December 20, 2018, Laguna Water paid 50.00% of the total acquisition cost amounting to ₱20.46 million. The remaining 50.00% was paid on September 6, 2019, after compliance with all conditions precedent to Laguna Water's APAs.

The fair values of the identifiable assets on these transactions as of the date of acquisition were as follows:

	Assets Acquired (Property, Plant and Equipment)	Acquisition Cost	Goodwill (Bargain Purchase)
Aqua Centro:			
First Advance Development Corporation	₱40,790,000	₱20,769,400	(₱20,020,600)
Earth Aspire Corporation	3,753,000	1,356,000	(2,397,000)
Ambition Land Inc.	5,528,000	4,559,550	(968,450)
Prosperity Builders Resources Inc.	11,604,000	12,475,200	871,200
Tahanang Yaman Homes Corporation	7,249,000	10,189,210	2,940,210
Earth + Style Corporation	15,143,000	7,160,810	(7,982,190)
Extraordinary Development Corp.	15,008,000	4,657,860	(10,350,140)
Laguna Water			
Earth Prosper Corporation	13,952,000	6,880,570	(7,071,430)
Earth + Style Corporation	23,303,000	17,337,590	(5,965,410)
Extraordinary Development Corp.	5,753,000	81,360	(5,671,640)
Earth Aspire Corporation	18,278,000	16,618,910	(1,659,090)

No identifiable liabilities were assumed by Aqua Centro and Laguna Water in these acquisitions. The acquisition of EDCG's subsidiaries assets resulted in a total gain on bargain purchase amounting to ₱18.33 million and ₱43.75 million, in 2019 and 2018, respectively, which is presented as part of "Other income (loss)" as the fair value of the property, plant and equipment acquired of ₱30.15 million in 2019 and ₱111.35 million in 2018 was in excess of the aggregate consideration of ₱11.82 million in 2019 and ₱67.60 million in 2018.

As of December 31, 2018, the purchase price allocations of Aqua Centro and Laguna Water for the acquisitions are provisional as the valuation of property, plant and equipment have yet to be finalized. The purchase price allocation of Aqua Centro and Laguna Water were finalized in 2019.

The rollforward of goodwill is as follows:

	2019	2018
Balance at beginning of year	**₱136,566,475**	₱132,755,065
Additions from business combination	**–**	3,811,410
Balance at end of year	**₱136,566,475**	₱136,566,475

As of December 31, 2019 and 2018, the goodwill balance is attributable to acquisitions of the following businesses:

Clark Water	₱130,319,465
Tahanang Yaman Homes Corporation	2,940,210
San Vicente Homes	1,229,600
Las Palmas Subdivisions Phases 1 to 7	1,206,000
Prosperity Builders Resources Inc.	871,200
Balance at end of year	₱136,566,475

5. Cash and Cash Equivalents and Short-term Investments

This account consists of:

	2019	2018
Cash on hand and in banks (Note 21)	**₱1,835,144,655**	₱1,440,142,718
Cash equivalents (Note 21)	**7,123,098,747**	7,950,448,555
	₱8,958,243,402	₱9,390,591,273

Cash in banks earn interest at the respective bank deposit rates ranging from 0.05% to 1.20%, 0.01% to 3.33%, and 0.01% to 2.80% in 2019, 2018, and 2017, respectively. Cash equivalents are highly liquid investments with varying periods of up to three (3) months and earn interest at the respective short-term rates.

Short-term investments pertain to the Group's time deposits with maturities of more than three (3) months up to one year and earned interest of 0.87% in 2019 (nil in 2018). As of December 31, 2019, the Group's short-term investments amounted to ₱109.27 million.

Interest income earned from cash in banks and cash equivalents and short-term investments amounted to ₱231.66 million, ₱255.35 million, and ₱116.52 million in 2019, 2018, and 2017, respectively (see Note 17).

6. Receivables and Contract Assets

a. *Receivables*

This account consists of receivables from:

	2019	2018
Customers of:		
Water and used water services:		
Residential	**₱2,048,587,720**	₱1,909,960,001
Commercial	**330,507,212**	265,422,961
Semi-business	**116,053,168**	91,609,334
Industrial	**47,003,659**	44,800,792
Supervision fees	**706,266,430**	108,366,330
Pipework services	**111,396,493**	317,767,816
Distributor's fees	**138,501,860**	146,564,312
Dividends from associates	**80,438,614**	–
Employees	**31,219,817**	31,155,782
Cebu II Electric Cooperative, Inc. (CEBECO)	**29,162,417**	62,516,190
ZCWD	**24,652,776**	10,450,032
Interest from banks	**13,705,156**	23,936,806
BWC	**–**	388,410,670
Others (Note 14)	**74,616,434**	115,047,257
	3,752,111,756	3,516,008,283
Less allowance for ECL	**1,300,641,866**	1,239,761,340
	2,451,469,890	2,276,246,943
Less noncurrent portion of BWC receivable (Note 12)	**–**	321,014,249
	₱2,451,469,890	₱1,955,232,694

The classes of the Group's receivables arising from water and sewer services rendered to customers, collectible within thirty (30) days from billing date, follow:

- Residential - pertains to receivables from residential households.
- Commercial - pertains to receivables from commercial customers.
- Semi-business - pertains to receivables from small businesses.
- Industrial - pertains to receivables from customers for industrial and manufacturing purposes.

Trade receivables arising from supervision fees on the development of water and used water facilities are collectible within thirty (30) days from billing date.

Trade receivables from pipework services pertain to pipelaying, pipe replacements, and other services related to water and used water treatment facilities. These receivables are collectible within twelve (12) months.

Trade receivables from distributors' fees arise from the Exclusive Distributorship Agreement (EDA) entered into by MWTS with distributors of its Healthy Family drinking water and are collectible within the period that is agreed with the distributors.

Dividends from associates pertain to receivables from dividend declarations of Thu Duc Water and Kenh Dong Water.

Receivable from employees arise from car, salary, and other loans which are due and demandable based on an agreed payment schedule and are collected through salary deductions.

Receivable from CEBECO pertains to reimbursement acknowledged by the utility provider in 2018 arising from excess billings on power consumption from January 2015 to February 2018. This was recognized as part of "Other income (loss)" (see Note 17).

Receivable from ZCWD pertains to billed charges for service fees, construction revenue, and performance fees arising from Zamboanga Water's NRWRSA. Zamboanga Water classifies as current the portion of the gross receivable from ZCWD that is collectible within the next twelve (12) months.

Interest from banks are accrued interest arising from the Group's cash in banks and cash equivalents.

Receivable from BWC pertains to the assigned receivable between the Parent Company and VWPI covered by the Share Purchase Agreement related to the acquisition of VWPI's interest in Clark Water in 2011 (see Note 1).

The assigned receivable will be paid by BWC at an amount equal to 30% of the product consumed by all of BWC's customers and the tariff imposed by the Parent Company on its customers falling under the corresponding classification pursuant to the Concession Agreement and all amounts received by BWC as connection fees from customers and any fee BWC may charge in relation to the interconnection with the wastewater treatment plant of areas of developments outside the BWC service area. The assigned receivable from BWC is interest-bearing and the Parent Company classifies as current the portion of its gross receivable from BWC that is due within the next twelve (12) months in accordance with the agreed terms. On December 27, 2019, BWC and the Parent Company entered into a Settlement Agreement for the pre-termination of the assigned receivable on that date for ₱334.89 million (see Note 17).

Interest income earned from receivable from BWC amounted to ₱27.81 million, ₱28.08 million, and ₱34.64 million in 2019, 2018, and 2017, respectively (see Note 17).

Other receivables include receivables from Land Bank of the Philippines in relation to the MWMP Loan (see Note 14), receivables from shared facilities, and collection facilities.

Movements in the Group's allowance for ECLs follows:

	2019					
	Receivable from Customers				**Other**	
	Residential	**Commercial**	**Semi-business**	**Industrial**	**Receivables**	**Total**
Balance at beginning of year	**₱830,168,254**	**₱150,283,294**	**₱45,547,464**	**₱7,500,339**	**₱206,261,989**	**₱1,239,761,340**
Provision (Note 17)	**13,325,127**	**14,344,816**	**20,498,375**	**5,841,943**	**57,522,055**	**111,532,316**
Reversal (Note 17)	**(11,484,237)**	**(15,777,760)**	**(944,180)**	**(558,480)**	**(21,887,133)**	**(50,651,790)**
Balance at end of year	**₱832,009,144**	**₱148,850,350**	**₱65,101,659**	**₱12,783,802**	**₱241,896,911**	**₱1,300,641,866**

	2018					
	Receivable from Customers				Other	
	Residential	Commercial	Semi-business	Industrial	Receivables	Total
Balance at beginning of year	₱733,140,957	₱130,835,492	₱39,121,515	₱18,313,091	₱143,474,045	₱1,064,885,100
Provision (Note 17)	97,027,297	19,447,802	6,425,949	13,428,896	62,787,944	199,117,888
Reversal (Note 17)	–	–	–	(24,241,648)	–	(24,241,648)
Balance at end of year	₱830,168,254	₱150,283,294	₱45,547,464	₱7,500,339	₱206,261,989	₱1,239,761,340

b. *Contract assets*

This account consists of:

	2019	2018
Contract assets from:		
Supervision fees	**₱323,469,512**	₱262,202,448
Pipeworks and integrated used water services	**188,642,365**	–
NRWRSA with ZCWD	**64,761,748**	66,475,151
Bulk Water Sales and Purchase Agreement with TWD (Note 10)	**46,563,208**	69,770,280
Current portion	**623,436,833**	398,447,879
Bulk Water Sales and Purchase Agreement with TWD (Note 10)	**570,125,829**	415,679,332
NRWRSA with ZCWD	**229,822,854**	77,263,570
Noncurrent portion	**799,948,683**	492,942,902
	₱1,423,385,516	₱891,390,781

Contract assets from supervision fees are initially recognized for revenue earned arising from the provision of design and project management services in the development of water and used water facilities. These contract assets are reclassified to "Receivables" upon acceptance and reaching certain construction milestones for the related water and used water facilities.

Contract assets from pipeworks and integrated used water services are initially recognized for revenue earned arising from water and wastewater network related services. These contract assets are reclassified to "Receivables" upon acceptance of and billings to customers of MWTS and MWTV.

Contract assets from the NRWRSA with ZCWD are initially recognized for revenue earned arising from construction revenue and performance fees for NRW reduction services. These contract assets are reclassified to "Receivables" upon acceptance of and billing to the customer.

In March 2019, the City Government of Zamboanga City declared a state of calamity due to the recurrence of El Niño. This prompted the ZCWD to implement a service-wide water rationing scheme. Consequently, Zamboanga Water was constrained to suspend its NRW Reduction activities due to the unstable supply caused by said water rationing.

Per Section 1.10 of the NRWRSA, a rebaseline is to be performed if there is a decrease in supply resulting from El Niño. Per agreement with ZCWD Project Management Unit (PMU) in November 2017, the computed NRW cu.m./day prior the rebaseline shall be used as basis for the "locked-in" performance computation. However, a supplemental agreement to formally recognize the computation and payment of "locked-in" performance has not been finalized as of December 31, 2019.

As of December 31, 2019, Zamboanga Water has not billed locked in performance fees amounting to ₱150.89 million.

Contract assets arising from the Bulk Water Sales and Purchase Agreement with TWD consist of the cost of rehabilitation works which will be reclassified to "Concession financial receivables" upon completion of construction of the related facilities. The rollforward of these contract assets follows:

	2019	2018
Balance at beginning of year	**₱485,449,612**	₱–
Rehabilitation works	**78,340,522**	219,077,622
Finance income (Note 17)	**52,898,903**	70,847,020
Impact of adoption of PFRS 15	**–**	206,953,634
Reclassification to concession financial receivables (Note 10)	**–**	(11,428,664)
Balance at end of year	**₱616,689,037**	₱485,449,612

7. Inventories

This account consists of:

	2019	2018
Water treatment chemicals	**₱120,451,995**	₱41,753,537
Water meters and connection supplies	**96,926,547**	44,980,771
Maintenance materials	**88,385,707**	72,879,100
Raw materials and finished goods	**36,675,582**	46,309,824
	₱342,439,831	₱205,923,232

Finished goods consist of 350-milliliter and 500-milliliter bottled water, five (5)-gallon packaged water and dispenser, while raw materials consist of the cap seals for the 5-gallon packaged water bottles.

The Group's inventories are carried at cost except for its maintenance materials, raw materials, and finished goods which are carried at NRV. Allowance for obsolescence amounted to ₱1.50 million and ₱4.40 million as of December 31, 2019 and 2018, respectively. Loss from inventory obsolescence is presented under operating expenses in the consolidated statements of comprehensive income.

In 2019, 2018, and 2017, MWTS recognized ₱45.48 million, ₱20.46 million, and ₱17.09 million, respectively, as part of its cost of sales of packaged water.

8. Other Current Assets

This account consists of:

	2019	2018
Net input VAT	**₱1,072,833,129**	₱875,216,925
Prepaid expenses	**422,239,159**	385,565,676
Advances to contractors and deposits	**186,700,634**	43,857,060
	₱1,681,772,922	₱1,304,639,661

Net input VAT pertains to the Group's excess input VAT over the output VAT as of the end of the reporting period.

Prepaid expenses consist of prepayments for transaction costs for undrawn credit facilities, loan guarantee fees, regulatory costs, business taxes, insurance, rent, interest, and employee health care expenses and other employee benefits.

Advances to contractors and deposits pertain to the Group's advance payments for various contractual projects or services and rental deposits and other advance payments that can be recovered within one (1) year.

9. Property, Plant and Equipment

The rollforward analysis of this account follows:

	2019						
	Land	**Plant and Technical Equipment**	**Office Furniture and Equipment**	**Transportation Equipment**	**Leasehold Improvements**	**Construction in Progress**	**Total**
Cost							
Balance at beginning of year	**₱226,340,760**	**₱2,179,123,649**	**₱2,225,530,370**	**₱1,105,895,159**	**₱719,966,569**	**₱1,176,887,075**	**₱7,633,743,582**
Additions	**–**	**540,563,743**	**147,747,981**	**228,909,262**	**12,647,663**	**956,184,689**	**1,886,053,338**
Transfers (Note 10)	**–**	**753,069,840**	**26,029,546**	**32,499,962**	**(243,068,983)**	**(571,108,224)**	**(2,577,859)**
Disposals	**–**	**(141,646,580)**	**(18,233,215)**	**(95,190,240)**	**(1,196,744)**	**–**	**(256,266,779)**
Balance at end of year	**226,340,760**	**3,331,110,652**	**2,381,074,682**	**1,272,114,143**	**488,348,505**	**1,561,963,540**	**9,260,952,282**
Accumulated depreciation, amortization, and impairment							
Balance at beginning of year	**–**	**1,263,311,241**	**1,948,025,814**	**556,120,604**	**358,071,058**	**–**	**4,125,528,717**
Depreciation and amortization (Note 17)	**–**	**208,819,003**	**185,407,545**	**209,444,164**	**44,923,140**	**–**	**648,593,852**
Disposals	**–**	**(90,426,345)**	**(12,744,985)**	**(78,402,531)**	**(249,491)**	**–**	**(181,823,352)**
Balance at end of year	**–**	**1,381,703,899**	**2,120,688,374**	**687,162,237**	**402,744,707**	**–**	**4,592,299,217**
Net book value	**₱226,340,760**	**₱1,949,406,753**	**₱260,386,308**	**₱584,951,906**	**₱85,603,798**	**₱1,561,963,540**	**₱4,668,653,065**

	2018						
	Land	Plant and Technical Equipment	Office Furniture and Equipment	Transportation Equipment	Leasehold Improvements	Construction in Progress	Total
Cost							
Balance at beginning of year	₱226,340,760	₱1,868,872,078	₱2,112,898,787	₱995,529,679	₱389,089,410	₱729,993,933	₱6,322,724,647
Additions	–	478,680,838	198,429,066	172,791,097	143,296,929	490,958,441	1,484,156,371
Transfers (Note 10)	–	(164,371,631)	46,636	–	187,580,230	(44,065,299)	(20,810,064)
Disposals	–	(4,057,636)	(85,844,119)	(62,425,617)	–	–	(152,327,372)
Balance at end of year	226,340,760	2,179,123,649	2,225,530,370	1,105,895,159	719,966,569	1,176,887,075	7,633,743,582
Accumulated depreciation and amortization							
Balance at beginning of year	–	1,068,543,434	1,775,684,977	455,299,213	287,882,481	–	3,587,410,105
Depreciation and amortization (Note 17)	–	152,554,152	257,968,825	158,078,468	45,029,958	–	613,631,403
Impairment loss (Note 17)	–	46,271,291	–	–	25,158,619	–	71,429,910
Disposals	–	(4,057,636)	(85,627,988)	(57,257,077)	–	–	(146,942,701)
Balance at end of year	–	1,263,311,241	1,948,025,814	556,120,604	358,071,058	–	4,125,528,717
Net book value	₱226,340,760	₱915,812,408	₱277,504,556	₱549,774,555	₱361,895,511	₱1,176,887,075	₱3,508,214,865

The net book value of noncash transfers to SCA in 2019 and 2018 amounted to ₱2.58 million and ₱20.81 million, respectively (see Note 10).

As of December 31, 2019 and 2018, noncash acquisitions of property, plant and equipment, amounted to ₱463.92 million and ₱346.18 million, respectively.

As of December 31, 2018, the impairment loss of ₱71.43 million pertains to the write-down of leasehold improvements and water treatment equipment of MWTS to its recoverable amount arising from the closure of several of its water bottling plants during the year.

10. Service Concession Assets and Obligations

a. *Service concession assets*

The movements in this account follow:

	2019	2018
Cost		
Balance at beginning of year	**₱108,995,318,152**	₱98,574,659,298
Additions:		
Rehabilitation works	**10,670,620,732**	9,442,899,007
Concession fees	**2,526,528,872**	948,016,106
Transfers (Note 9)	**2,577,859**	16,648,552
Local component cost	**62,411,267**	13,095,189
Balance at end of year	**122,257,456,882**	108,995,318,152

(Forward)

	2019	2018
Accumulated amortization		
Balance at beginning of year	**26,465,752,314**	24,423,713,917
Amortization	**2,272,561,582**	2,042,038,397
Balance at end of year	**28,738,313,896**	26,465,752,314
Net book value	**₱93,519,142,986**	₱82,529,565,838

SCA consists of the present value of total estimated concession fee payments, including regulatory costs and local component costs, of the Parent Company, Laguna Water, Boracay Water, Clark Water, Obando Water, Calasiao Water, Bulakan Water, South Luzon Water, and Lambunao Water pursuant to the Group's concession agreements and JVAs; and the revenue from rehabilitation works which is equivalent to the related cost for the rehabilitation works covered by the concession arrangements and JVAs. As of December 31, 2019 and 2018, SCA includes assets under construction amounting to ₱22,920.69 million and ₱23,082.31 million, respectively.

SCA also includes prepaid concession fees which represents the thirty percent (30.00%) ownership of PGL in Laguna Water. These are amortized based on the terms set forth in Laguna Water's concession agreement (see Note 1). As of December 31, 2019 and 2018, the unamortized portion of prepaid concession fees presented as part of SCA amounted to ₱50.98 million and ₱84.36 million, respectively.

Contract assets arising from concession agreements consist of the cost of rehabilitation works covered by the concession agreements of the Parent Company, Laguna Water, Boracay Water, Clark Water, Cebu Water, Obando Water, Bulakan Water, South Luzon Water, Tagum Water, and Calasiao Water.

Total interest and other borrowing costs capitalized as part of the rehabilitation works amounted to ₱980.92 million, ₱1,018.30 million, and ₱713.33 million in 2019, 2018, and 2017, respectively. The capitalization rates used ranged from 4.50% to 7.66% in 2019, 6.57% to 7.57% in 2018, and 5.12% to 9.15% in 2017.

As of December 31, 2019 and 2018, noncash acquisitions of SCA amounted to ₱338.70 million and ₱92.77 million, respectively.

b. *Service concession obligations*

The breakdown of service concession obligations follows:

	2019	2018
Current	**₱1,014,243,947**	₱809,405,231
Noncurrent	**8,139,577,739**	7,119,121,473
	₱9,153,821,686	₱7,928,526,704

MWSS Concession Fees

The aggregate concession fees of the Parent Company are equal to the sum of the following:

i. 10.00% of the aggregate Peso equivalent due under any MWSS loan which has been disbursed prior to the Commencement Date, including MWSS loans for existing projects and the Umiray Angat Transbasin Project (UATP), on the prescribed payment date;
ii. 10.00% of the aggregate Peso equivalent due under any MWSS loan designated for the UATP which has not been disbursed prior to the Commencement Date, on the prescribed payment date;
iii. 10.00% of the local component costs and cost overruns related to the UATP;
iv. 100.00% of the aggregate Peso equivalent due under MWSS loans designated for existing projects, which have not been disbursed prior to the Commencement Date and have been either awarded to third party bidders or elected by the Parent Company for continuation;
v. 100.00% of the local component costs and cost overruns related to existing projects;
vi. Parent Company's share in the repayment of MWSS loan for the financing of new projects; and
vii. one-half of MWSS annual corporate operating budget.

In March 2010, MWSS entered into a loan agreement with The Export-Import Bank of China to finance the Angat Water Utilization and Aqueduct Improvement Project Phase II. Total loan facility amounted to $116.60 million with a maturity of twenty (20) years including a five (5)-year grace period. The interest rate is 3.00% per annum.

MWSS subsequently entered into a MOA with the Parent Company and Maynilad for the Parent Company and Maynilad to equally shoulder the repayment of the loan with such repayment to form part of the concession fees.

On May 12, 2015, MWSS entered into a MOA with the Parent Company and Maynilad for the Angat Water Transmission Improvement Project (Angat Transmission Project). The Angat Transmission Project aims to improve the reliability and security of the raw water coming from the Angat Dam through the rehabilitation of the transmission system from Ipo to La Mesa and the application of water safety, risk and asset management plans. Subsequently, on May 27, 2016, MWSS entered into a loan agreement with Asian

Development Bank to finance the Angat Transmission Project. The loan amounts to US$123.30 million with a maturity of twenty-five (25) years including a seven (7)-year grace period. As stipulated in the MOA, the Parent Company and Maynilad shall shoulder equally the repayment of the loan and all reasonable expenditures related to the Project with such payments to form part of the concession fees.

In 2016, the Parent Company paid MWSS ₱500.00 million as compensation for additional water allocation in the Angat reservoir.

In 2016, MWSS entered into a MOA with the Parent Company and Maynilad which was subsequently amended in 2018 for the New Centennial Water Source - Kaliwa Dam Project (NCWS-KDP). The NCWS-KDP aims to develop a new water source in order to meet the increasing water demand by constructing a dam for MWSS service area's domestic water supply.

To partially finance the NCWS-KDP, MWSS entered into a Preferential Buyer's Credit Loan Agreement with The Export-Import Bank of China in 2018 amounting to US$211.21 million with a maturity of twenty (20) years including a seven (7)-year grace period. As stipulated in the MOA, the Parent Company and Maynilad shall shoulder equally the repayment of the loan and all reasonable expenditures related to the Project with such payments to form part of the concession fees.

The schedule of undiscounted future concession fee payments follows:

Year	Foreign Currency-Denominated Loans (Translated to US$)	Peso Loans/ Project Local Support	Total Peso Equivalent*
2020	$9,778,143	₱593,572,360	₱1,088,688,631
2021	7,123,623	395,714,907	756,419,558
2022	6,800,857	395,714,907	740,076,301
2023	7,555,420	395,714,907	778,283,599
2024	7,358,799	395,714,907	768,327,694
2025 onwards	58,318,436	4,748,578,881	7,701,532,888
	$96,935,278	₱6,925,010,869	₱11,833,328,671

**Peso equivalent is translated using the closing rate as of December 27, 2019 amounting to ₱50.6350 to US$1.*

PGL Concession Fees

Under Laguna Water's concession agreement with PGL, Laguna Water is required to pay concession fees to PGL computed as a percentage of water sales as follows:

Operational Period	Percentage of Water Sales
Years 1 to 5	4.00%
Years 6 to 25	3.00%

Seventy percent (70.00%) of the concession fees shall be applied against any advances made by Laguna Water to PGL. The remaining thirty percent (30.00%) of the concession fees shall be payable annually thirty (30) days after the submission of the audited financial statements by Laguna Water, starting on the first operational period, which begins upon the expiration of the transition period. Advances as of December 31, 2019 and 2018 amounted to ₱50.98 million and ₱84.36 million, respectively.

TIEZA Concession Fees

The aggregate concession fees pursuant to Boracay Water's concession agreement with TIEZA is equal to the sum of the following:

i. servicing the aggregate Peso equivalent of all liabilities of Boracay Water Sewerage Systems (BWSS) as of commencement date;
ii. 5.00% of the monthly gross revenue of Boracay Water, inclusive of all applicable taxes which are for the account of Boracay Water; and
iii. payment of annual operating budget of the TIEZA-RO starting 2010. For 2010 and 2011, the amount shall not exceed ₱15.00 million. For the year 2012 and beyond, Boracay Water shall pay ₱20.00 million, subject to annual CPI adjustments.

CDC Concession Fees

The aggregate concession fees pursuant to Clark Water's concession agreement with CDC is equal to the sum of the following:

i. annual franchise fee of ₱1.50 million; and
ii. semi-annual rental fees of ₱2.77 million for leased facilities from CDC.

As a result of the extension of the concession agreement of Clark Water, payment of rental fees on the CDC existing facilities was extended by an additional fifteen (15) years from October 1, 2025 to October 1, 2040 (see Note 1).

CWD Concession Fees

Under Calasiao Water's concession agreement with CWD, concession fees are based on a fixed schedule of annual payments over the twenty-five (25) year concession period.

OWD Concession Fees
The aggregate concession fee pursuant to Obando Water's concession agreement with OWD is equal to the sum of the following:

i. base concession fee which shall be used for operations of the OWD; and
ii. additional concession fee composed of amounts representing amortization payments for the outstanding obligations of OWD (which includes OWD's loan with LWUA) and 2.00% of the gross annual receipts of Obando Water, representing franchise tax to be paid by the OWD.

On March 28, 2019, LWUA has approved a new loan repayment scheme of thirteen (13) years with OWD. Upon initial payment, which shall not be later than May 15, 2019, LWUA shall no longer collect interests and penalties from OWD.

For the years ended December 31, 2019 and 2018, concession fees recognized as part of SCA and SCO arising from the concession agreement with OWD amounted to nil and ₱470.94 million, respectively.

BuWD Concession Fees
The aggregate concession fee pursuant to Bulakan Water's concession agreement with BuWD is equal to the sum of the following:
i. base concession fee which shall be used for operations of the BuWD; and
ii. additional concession fees composed of:
- 2.00% of the gross monthly water sales of Bulakan Water,
- one-time expenditures and payables applicable only for Year 1 of the concession agreement, and
- an amount equivalent to the monthly consumption of BuWD under a bulk water supply agreement with Luzon Clean Water Development Corporation, including any minimum guaranteed volume consumption.

Any loss or reduction in profit for any given year as a result of the operation of the facilities in the service area of BuWD shall not in any way affect or reduce the payment of the base concession fee.

PAGWAD Revenue Share
Under Laguna Water's JVA with PAGWAD, Laguna Water is required to pay, on a calendar year basis, an annual revenue share, amounting to the higher of:
i. ₱10.50 million for a twelve (12)-month period or the proportionate amount for those years with less than twelve (12) months (the "base revenue share"); or
ii. seven percent (7.00%) of the annual gross operating revenues for the immediately preceding year based on the audited financial statements (the "variable revenue share").

The revenue share shall be payable by Laguna Water in advance at the start of the relevant year. The base revenue share shall be payable within fifteen (15) calendar days from the start of the relevant year. In the event the variable revenue share is higher than the base revenue share, the difference between the variable revenue share and the base revenue share shall be payable to PAGWAD within fifteen (15) calendar days after the approval of Laguna Water's audited financial statements.

Subject to the provision of the JVA on EPA, Laguna Water shall increase the revenue share due to PAGWAD in case of a corresponding increase in the government-mandated salary and benefits that may be implemented during the period of the JVA.

TnWD Fees
Under South Luzon Water's JVA with TnWD, South Luzon Water is required to pay, on an annual basis, a revenue share, amounting to ₱17.50 million subject to an increase of ₱1.00 million every five (5) years, conditioned upon the approval by the TnWD BOD and LWUA on the increase in tariff rates for the relevant tariff adjustment year. The revenue share for the duration of the appointment period:

Appointment Period	Revenue Share
Years 1 to 5	₱17.50 million
Years 6 to 10	₱18.50 million
Years 11 to 25	₱19.50 million
Years 16 to 20	₱20.50 million
Years 21 to 25	₱21.50 million

LWD Fees
Under Aqua Centro's JVA with LWD, Aqua Centro is required to pay, on a monthly basis, an annual revenue share, amounting to ₱15.75 million, conditioned upon the approval by the LWD BOD and LWUA on the increase in tariff rates for the relevant tariff adjustment year. The revenue share shall no longer be guaranteed and shall be subject to adjustment by mutual agreement and discussion of Aqua Centro and LWD if the tariff adjustment are not secured or obtained from LWUA. The revenue share for the duration of the appointment period:

Appointment Period	Revenue Share
Years 1 to 5	₱15.75 million
Years 6 to 10	₱17.50 million
Years 11 to 25	₱17.50 million
Years 16 to 20	₱17.50 million
Years 21 to 25	₱20.65 million
Years 26 to 30	₱25.75 million
Years 31 to 35	₱35.33 million

Subject to the provision of the JVA on EPA, Aqua Centro shall increase the revenue share due to LWD in case of a corresponding increase in the government-mandated salary and benefits that may be implemented during the appointment period of the JVA.

CCWD Revenue Share

Under Calbayog Water's JVA with CCWD, Calbayog Water is required to pay, on a monthly basis, an annual revenue share, amounting to ₱18.00 million subject to an increase of ₱1.00 million every five (5) years, conditioned upon the approval by the CCWD BOD and LWUA on the increase in tariff rates for the relevant tariff adjustment year. The revenue share for the duration of the appointment period:

Appointment Period	Revenue Share
Years 1 to 5	₱18.00 million
Years 6 to 10	₱19.00 million
Years 11 to 25	₱20.00 million
Years 16 to 20	₱21.00 million
Years 21 to 25	₱22.00 million

Subject to the provision of the JVA on EPA, Calbayog Water shall increase the revenue share due to CCWD in case of a corresponding increase in the government-mandated salary and benefits that may be implemented during the appointment period of the JVA.

The Group's interest expense on its service concession obligations amounted to ₱765.16 million, ₱662.27 million, and ₱603.35 million in 2019, 2018, and 2017, respectively (see Note 17).

c. *Concession financial receivables*

The movements in this account follow:

	2019	2018
Cost		
Balance at beginning of year	**₱1,061,640,955**	₱1,395,814,171
Additions:		
Rehabilitation works	**103,949,941**	–
Service income	**92,105,811**	82,023,265
Finance income (Note 17)	**91,314,636**	55,058,838
Reclassification to contract assets (Notes 2 and 6)	**–**	(206,953,634)
Reclassification from contract assets (Note 6)	**–**	11,428,664
Collections	**(278,520,590)**	(275,730,349)
Balance at end of year	**1,070,490,753**	1,061,640,955
Allowance for ECL		
Balance at beginning of year	**14,599,413**	11,262,889
Provisions (Note 17)	**1,353,002**	3,336,524
Balance at end of year	**15,952,415**	14,599,413
Net book value	**₱1,054,538,338**	₱1,047,041,542

The breakdown of concession financial receivables follows:

	2019	2018
Current	**₱238,982,837**	₱193,706,165
Noncurrent	**815,555,501**	853,335,377
	₱1,054,538,338	₱1,047,041,542

MCWD Bulk Water Supply Agreement

On December 13, 2013, Cebu Water received a Notice of Award for the bulk supply of water to the MCWD. In relation to this, Cebu Water and MCWD signed a twenty (20)-year Bulk Water Supply Agreement for the supply of eighteen (18) million liters per day of water for the first year and thirty-five (35) million liters per day of water for years two (2) up to twenty (20).

Concession financial receivable is accounted for in accordance with IFRIC 12, arising from the bulk water contract between Cebu Water and MCWD, whereby the facilities constructed by Cebu Water shall be used for the delivery of potable and treated water to MCWD at an aggregate volume of eighteen (18) million liters per day for the first year and thirty-five (35) million liters per day for the succeeding years up to twenty (20) years at ₱24.59 per cubic meter.

In 2019 and 2018, Cebu Water invoked the force majeure clause due to high water turbidity which resulted to intermittent delivery of the required thirty-five (35) million liters of water to MCWD. As a result, Cebu Water recognized ₱1.35 million and ₱3.34 million impairment loss for the years ended December 31, 2019 and 2018, respectively (see Note 17).

As of December 31, 2019 and 2018, concession financial receivable from the Bulk Water Supply Agreement of Cebu Water amounted to ₱1,054.54 million and ₱1,047.04 million, respectively.

TWD Bulk Water Sales and Purchase Agreement
The concession financial receivable arising from the Bulk Water Sales and Purchase Agreement (Agreement) between Tagum Water and TWD is accounted for in accordance with IFRIC 12. Under the Agreement, Tagum Water shall construct water treatment facilities which shall be used for the delivery of potable water to TWD at an aggregate volume of twenty-six (26) million liters per day for the 1st to 3rd years; thirty-two (32) million liters per day for the 4th to 6th years; and thirty-eight (38) million liters per day for the remaining years of the agreement. There shall be a tariff rate adjustment of fifteen percent (15%) every three (3) years starting on the 4th year from the Operations Start Date as defined in the Agreement.

As of December 31, 2019 and 2018, the net balance of rehabilitation works and finance income earned during the construction phase and recognized as part of contract assets amounted to ₱616.69 million and ₱485.45 million, respectively, and is presented as part of contract assets in the consolidated statements of financial position
(see Note 6).

11. Investments in Associates

This account consists of the following:

	2019	2018
Acquisition cost	**₱13,369,281,128**	₱13,443,606,385
Accumulated equity in net earnings	**1,784,596,114**	1,547,479,451
Cumulative translation adjustments	**367,276,668**	1,003,863,210
Equity share in other comprehensive loss of associates	**(1,345,944)**	–
	₱15,519,807,966	₱15,994,949,046

Details of the Group's investments in associates are shown below.

Thu Duc Water
Thu Duc Water is incorporated in the Socialist Republic of Vietnam with principal place of business in Ho Chi Minh City, Vietnam.

On October 12, 2011, TDWH and Ho Chi Minh City Infrastructure Investment Joint Stock Company (CII) entered into a share sale and purchase agreement whereby CII will sell to TDWH its 49.00% interest (equivalent to 2.45 million common shares) in Thu Duc Water. On December 8, 2011, TDWH completed the acquisition of CII's interest in the common shares of Thu Duc Water after which TDWH obtained significant influence in Thu Duc Water.

The acquisition cost of the investment amounted to ₱1.79 billion (VND858.00 billion). The investments in associate account includes a notional goodwill amounting to VND698.04 billion arising from the acquisition of shares of stock in Thu Duc Water.

The financial information of Thu Duc Water as of and for the years ended December 31, 2019 and 2018 follows:

	2019	2018
Current assets	**₱166,210,877**	₱213,377,855
Noncurrent assets	**3,310,199,352**	3,938,017,112
Current liabilities	**436,779,465**	323,778,792
Noncurrent liabilities	**522,673,772**	440,281,223
Revenue	**810,036,972**	851,034,995
Net income	**500,819,027**	520,193,273

The conversion rates used were ₱0.0022 and ₱0.0023 to VND1 as of December 31, 2019 and 2018, respectively.

The share of the Group in the net income of Thu Duc Water for the years ended December 31, 2019, 2018 and 2017 amounted to ₱245.40 million, ₱254.89 million, and ₱241.95 million, respectively.

As of December 31, 2019, dividends receivable amounted to ₱59.74 million (see Note 6).

Kenh Dong Water
Kenh Dong Water is incorporated in the Socialist Republic of Vietnam with principal place of business in Ho Chi Minh City, Vietnam.

On May 17, 2012, the Parent Company, through KDWH, entered into a sale and purchase agreement with CII for the purchase of 47.35% of CII's interest in Kenh Dong Water. The payment for the shares was done in two tranches, with additional contingent considerations subject to the fulfillment of certain conditions precedent, for a total purchase price of ₱1.66 billion.

As of December 31, 2012, considerations paid by the Parent Company for its investment in Kenh Dong Water amounted to ₱1.57 billion (VND785.24 billion). The share purchase transaction was completed on July 20, 2012 and KDWH gained significant influence in Kenh Dong Water.

In 2013, Kenh Dong Water finalized its purchase price allocation which resulted in a final notional goodwill amounting to VND650.85 billion.

The financial information of Kenh Dong Water as of and for the years ended December 31, 2019 and 2018 follows:

	2019	2018
Current assets	₱328,430,840	₱689,947,464
Noncurrent assets	2,302,794,782	3,900,513,345
Current liabilities	263,175,126	406,157,481
Noncurrent liabilities	202,382,866	1,348,948,908
Revenue	561,227,027	511,661,133
Net income	276,467,945	322,399,454

The conversion rates used were ₱0.0022 and ₱0.0023 to VND1 as of December 31, 2019 and 2018, respectively.

The share of the Group in the net income of Kenh Dong Water for the years ended December 31, 2019, 2018, and 2017 amounted to ₱130.91 million, ₱152.66 million, and ₱148.39 million, respectively.

As of December 31, 2019, dividends receivable amounted to ₱20.69 million (see Note 6).

The Group's share in net income from its investments in Thu Duc Water and Kenh Dong Water resulted from concession arrangements with the People's Committee of Ho Chi Minh City (the Grantor). These concession arrangements are accounted for under the Financial Asset model of IFRIC 12 as these associates have an unconditional contractual right to receive fixed and determinable amounts of payment for its construction services at the direction of the Grantor.

Saigon Water
Saigon Water is incorporated in the Socialist Republic of Vietnam with principal place of business in Ho Chi Minh City, Vietnam. Saigon Water is listed in the Ho Chi Minh City Stock Exchange.

On October 8, 2013, the Parent Company, through MWSAH, entered into an Investment Agreement for the acquisition of a 31.47% stake in Saigon Water. The acquisition cost of the investment amounted to ₱642.76 million (VND310.45 billion). The share subscription transaction was completed on October 8, 2013 and MWSAH gained significant influence in Saigon Water.

In 2014, MWSAH finalized the notional goodwill amounting to VND139.5 billion arising from the acquisition of shares of stock in Saigon Water by the Group as of December 31, 2013. There were no adjustments made to the fair values of the net assets as of acquisition date.

On June 21, 2017, MWSAH subscribed to an additional 6.15 million primary shares of Saigon Water for ₱229.16 million (VND103.87 billion), which increased MWSAH's holding in Saigon Water's outstanding capital stock to 37.99% from 31.47%. The notional goodwill arising from the additional subscription amounted to VND19.06 billion.

In 2019 and 2018, MWSAH recognized impairment on its investment in Saigon Water amounting to ₱72.69 million and ₱65.41 million, respectively, arising from the decline in the market capitalization of Saigon Water shares. This is presented as part of "Other income (loss)" in the consolidated statement of comprehensive income for the year ended December 31, 2019 and 2018.

The financial information of Saigon Water as of and for the years ended December 31, 2019 and 2018 follows:

	2019	2018
Current assets	**₱571,565,973**	₱1,143,528,444
Noncurrent assets	**4,381,028,555**	4,842,593,792
Current liabilities	**855,265,859**	424,658,015
Noncurrent liabilities	**2,001,822,328**	3,167,576,010
Revenue	**1,107,928**	597,745,763
Net income (loss)	**(49,870,061)**	72,305,734

The conversion rates used were ₱0.0022 and ₱0.0023 to VND1 as of December 31, 2019 and 2018, respectively.

The share of the Group in the consolidated net loss of Saigon Water for the year ended December 31, 2019 amounted to ₱18.95 million loss and the Group's share in the consolidated net income of Saigon Water for the years ended December 31, 2018 and 2017 amounted ₱27.47 million and ₱66.89 million, respectively. The closing share price of Saigon Water as of December 31, 2019 and December 28, 2018 were VND16,750 per share and VND17,150 per share, respectively.

Cu Chi Water Supply Sewerage Company Ltd. (Cu Chi Water)
Cu Chi Water is incorporated in the Socialist Republic of Vietnam with principal place of business in Ho Chi Minh City, Vietnam.

On October 10, 2015, MWSAH executed a Capital Transfer Agreement with Saigon Water for the acquisition of 24.50% of the charter capital of Cu Chi Water in the total amount of ₱318.16 million (VND154.35 billion). Pursuant to the Capital Transfer Agreement, Saigon Water granted a put option to MWSAH and VIAC (No 1) Limited Partnership, another party to the agreement, which option can be exercised upon the occurrence of certain trigger events. As of December 31, 2019 and 2018, no trigger event has occurred and the value of the put option was determined to be nil.

The financial information of Cu Chi Water as of and for the years ended December 31, 2019 and 2018 follows:

	2019	2018
Current assets	**₱182,288**	₱108,941
Noncurrent assets	**1,376,674,124**	1,486,783,437
Current liabilities	**224,412**	115,000

The conversion rates used were ₱0.0022 and ₱0.0023 to VND1 as of December 31, 2019 and 2018, respectively.

The share of the Group in the net income of Cu Chi Water amounted to nil from 2017 to 2019.

PT STU
PT STU is incorporated in Indonesia with principal place of business in Semarang, Indonesia.

On March 6, 2018, PTMWI acquired 4,478 ordinary shares in PT STU to own 20.00% of its outstanding capital stock.

The financial information of PT STU as of December 31, 2019 and 2018 and for the year ended December 31, 2019 and the period ended from March 6 to December 31, 2018 follows:

	2019	2018
Current assets	**₱42,912,062**	₱36,564,148
Noncurrent assets	**176,274,601**	169,645,979
Current liabilities	**13,258,648**	8,123,117
Noncurrent liabilities	**–**	1,587
Revenue	**74,165,205**	65,779,462
Net income	**7,404,351**	7,015,707

The conversion rate used was ₱0.0036 to IDR1 as of December 31, 2019 and 2018.

The acquisition cost of the investment amounted to ₱37.00 million (IDR10.00 billion). The investment in associate account includes a notional goodwill amounting to IDR295.46 million arising from the acquisition of shares of stock in PT STU. The share in the net identifiable assets of PT STU on the date of acquisition amounted to ₱35.91 million.

The share of the Group in the net income of STU amounted to ₱1.48 million and ₱1.40 million in 2019 and 2018, respectively.

East Water
East Water is incorporated in Thailand with principal place of business in Bangkok, Thailand. East Water is listed in the Stock Exchange of Thailand.

On March 14, 2018, MWTC acquired 311.44 million ordinary shares in East Water representing 18.72% equity of East Water.

The financial information of East Water as of and for the year ended December 31, 2019 and 2018 and for the year ended December 31, 2019 and period from March 14 to December 31, 2018 follows:

	2019	2018
Current assets	**₱786,665,602**	₱1,383,264,201
Noncurrent assets	**44,642,452,527**	48,437,442,066
Current liabilities	**4,141,829,025**	3,602,841,873
Noncurrent liabilities	**14,054,172,264**	9,826,027,340
Revenue	**6,026,669,908**	6,194,498,451
Net income	**1,574,027,995**	1,403,413,951
Other comprehensive income	**(7,189,872)**	–

The conversion rates used was ₱1.6811 and ₱1.6220 to THB1 as of December 31, 2019 and 2018, respectively.

The acquisition cost of the investment amounted to ₱8.83 billion (THB5.29 billion). As of December 31, 2018, the investment in associate account includes a preliminary notional goodwill amounting to THB2.0 billion arising from the acquisition of shares in East Water. Share in net identifiable assets on date of acquisition amounted to ₱5.50 billion (THB3.30 billion). As of December 31, 2019, the investment in associate account includes a notional goodwill amounting to THB2.31 billion. Increase in the notional goodwill resulted from the change in fair value of the fixed assets following the re-assessment of the assumptions used as part of the finalization of the purchase price allocation. Share in net identifiable assets upon finalization of the purchase price allocation amounted to ₱4.98 billion (THB2.99 billion).

The share of the Group in the net income of East Water amounted to ₱294.66 million and ₱262.72 million in 2019 and 2018, respectively. The closing share price of East Water as of December 30, 2019 and December 28, 2018 was THB11.00 per share and THB10.70 per share, respectively.

The reconciliation of the net assets of the associates to the carrying amounts of the investments in associates recognized in the consolidated financial statements follows:

			December 31, 2019		
Associate	**Net Assets of Associate***	**Proportionate Ownership Interest**	**Share in Net Identifiable Assets**	**Notional Goodwill**	**Carrying Values**
Thu Duc Water	**₱2,516,956,992**	**49.00%**	**₱1,233,308,926**	**₱1,525,274,410**	**₱2,758,583,336**
Kenh Dong Water	**2,165,667,630**	**47.35%**	**1,025,443,623**	**1,422,160,185**	**2,447,603,808**
Saigon Water	**2,095,506,340**	**37.99%**	**796,082,859**	**161,763,000**	**957,845,859**
Cu Chi Water	**1,376,632,000**	**24.50%**	**337,274,840**	**–**	**337,274,840**
PT STU	**205,928,014**	**20.00%**	**41,185,603**	**1,076,240**	**42,261,843**
East Water	**27,233,116,840**	**18.72%**	**5,098,039,473**	**3,878,198,807**	**8,976,238,280**
Total	**₱35,593,807,816**		**₱8,531,335,324**	**₱6,988,472,642**	**₱15,519,807,966**

**Attributable to common shareholders.*

			December 31, 2018		
Associate	Net Assets of Associate*	Proportionate Ownership Interest	Share in Net Identifiable Assets	Notional Goodwill	Carrying Values
Thu Duc Water	₱3,387,334,952	49.00%	₱1,659,794,127	₱1,413,891,653	₱3,073,685,780
Kenh Dong Water	2,835,354,420	47.35%	1,342,540,318	1,378,777,432	2,721,317,750
Saigon Water	2,393,888,210	37.99%	909,438,131	262,902,118	1,172,340,249
Cu Chi Water	1,486,777,378	24.50%	364,260,458	–	364,260,458
PT STU	198,085,423	20.00%	39,617,084	1,122,763	40,739,847
East Water	36,391,837,054	18.72%	6,812,551,896	1,810,053,066	8,622,604,962
Total	₱46,693,277,437		₱11,128,202,014	₱4,866,747,032	₱15,994,949,046

**Attributable to common shareholders.*

The rollforward of acquisition cost follows:

	2019	2018
Balance at beginning of year	**₱13,443,606,385**	₱4,637,970,238
Acquisitions during the year	**–**	8,871,042,180
Impairment loss (Note 17)	**(74,325,257)**	(65,406,033)
Balance at end of year	**₱13,369,281,128**	₱13,443,606,385

The rollforward of accumulated equity in net earnings follow:

	2019	2018
Balance at beginning of year	**₱1,547,479,451**	₱1,262,156,536
Equity in net earnings	**653,502,170**	699,142,026
Dividend income	**(416,385,507)**	(413,819,111)
Balance at end of year	**₱1,784,596,114**	₱1,547,479,451

The rollforward of share in other comprehensive net loss of an associates as presented in consolidated statement of changes in equity in 2019 (nil in 2018) follow:

Balance at beginning of year	₱–
Equity in share in other comprehensive loss	(1,345,944)
Balance at end of year	(₱1,345,944)

12. Other Noncurrent Assets

This account consists of:

	2019	2018
Deferred FCDA	**₱1,669,044,887**	₱2,620,320,458
Advances to contractors (Note 8)	**1,056,159,546**	916,675,329
Deposits (Note 8)	**203,613,759**	160,879,074
Water rights	**174,284,094**	65,795,763
Receivable from Ayala Multi-Purpose Cooperative (AMPC)	**53,090,810**	54,040,000
Receivable from BWC - net of current portion (Note 6)	**–**	321,014,249
Miscellaneous	**95,676,781**	66,872,471
	₱3,251,869,877	₱4,205,597,344

Deferred FCDA refers to the net unrecovered amounts from (amounts for refund to) customers for realized losses (gains) from payments of foreign loans based on the difference between the drawdown or rebased rate versus the closing rate at payment date. This account also covers the unrealized gains or losses from loan valuations.

Advances to contractors are advance payments for the construction of the Group's property and equipment and service concession assets. These are being recouped for more than one (1) year against progress billings based on contract provisions.

Deposits pertain to those made for land acquisition, for leased properties, for environmental guaranty funds, and for guaranty deposits with Manila Electric Company for electric connections and its related deferred charges. In 2018, deposit for land acquisition amounting to ₱1,299.85 million which was outstanding as of December 31, 2017 was reclassified to rehabilitation works under SCA (see Note 10).

Water rights pertains to the rights to draw water from the Luyang River, Pampanga River, Abacan River, Pasig-Potrero River, Agno River, and Cagayan River. On August 22, 2012, the National Water Resources Board (NWRB) approved the assignment of Water Permit No. 16241 from Central Equity Ventures Inc. (now Stateland Inc.) to MW Consortium which MW Consortium allows Cebu Water to use for its project. As of December 31, 2019 and 2018, Cebu Water's water banking right amounted to ₱45.00 million.

In 2019 and 2018, MWPVI incurred costs to acquire conditional water permits from the NWRB amounting to ₱108.49 million and ₱5.73 million, respectively. A conditional water permit is necessary prior to the issuance of the water permit by NWRB subject to submission of certain requirements, including plans and specifications for the diversion works, pump structure, water measuring device and water distribution system, and environmental compliance certification by the Department of Environment and Natural Resources, among others. On April 23, 2018, the NWRB granted MWPVI the permit to use the water from the Pampanga River and on September 24, 2018, granted permits to use the water from the Abacan River and Pasig-Potrero River which superseded the conditional water permits granted to MWPVI on April 20 and September 20, 2017, respectively. On August 27, 2019, the NWRB granted MWPVI the permit to use water from the Agno River which superseded the conditional water permit granted on March 21, 2018. As of December 31, 2019, the Group believes that the remaining requirements for the Cagayan River are ministerial and is certain that it will be able to comply with the conditions required.

The Group estimates the useful lives of its water rights to be indefinite considering that the water permits remain valid for as long as water is beneficially used.

Receivable from AMPC pertains to the term loan and credit line facility agreement.

Miscellaneous noncurrent assets includes Cebu Water's advances to the Carmen Development Fund for its permit to extract water at the Carmen property in Cebu amounting to ₱24.56 million and ₱26.16 million in 2019 and 2018, respectively; and Laguna Water's escrow fund established to facilitate the repurchase of its redeemable preferred shares to comply with the pertinent rules of SEC.

13. Accounts and Other Payables and Contract Liabilities

a. *Accounts and other payables*

This account consists of:

	2019	2018
Trade payables	**₱6,555,323,927**	₱4,636,951,587
Accrued expenses:		
Salaries, wages, and employee benefits	**517,200,821**	455,105,714
Management and professional fees	**294,047,066**	291,627,193
Repairs and maintenance	**220,664,182**	162,913,118
Contractual services	**194,083,809**	168,977,380
Utilities	**130,915,964**	164,286,216
Wastewater costs	**81,950,086**	69,873,120
Occupancy costs (Note 23)	**60,863,177**	45,724,833
Rental of equipment	**31,076,051**	14,950,815
Water service connections	**26,998,480**	25,611,837
Collection fees	**20,259,812**	38,776,372
Water treatment chemicals	**7,615,547**	4,335,003
Miscellaneous	**204,954,656**	321,458,602
Contractors' payable	**837,564,502**	357,234,597
Interest payable (Note 14)	**493,428,795**	435,977,783
Others	**116,294,235**	97,478,392
	₱9,793,241,110	₱7,291,282,562

Trade payables and accrued expenses are non-interest bearing and are normally settled on fifteen (15) to sixty (60)-day terms.

Miscellaneous accrued expenses include accruals for communication, advertising, insurance, transportation and travel, postage, telephone and supplies.

Interest payable pertains to the unpaid portion of interest arising from the short-term and long-term debts of the Group.

Contractors' payable pertains to the accrual of expenses which requires the Group to pay the contractor based on progress billings. Contracts payable are normally settled within one (1) year.

Other payables are non-interest bearing and are normally settled within one (1) year.

b. *Contract liabilities*

This account consists of:

	2019	2018
Supervision fees	**₱265,358,865**	₱17,891,680
Distributors' fees	**1,665,542**	–
Current portion	**267,024,407**	17,891,680
Connection fees – non current	**78,619,821**	–
	₱345,644,228	₱17,891,680

Contract liabilities from supervision fees are initially recognized for advance payments of customers for the provision of design and project management services in the development of water and used water facilities. Contract liabilities are reclassified to "Supervision fees" under "Other operating income" upon completion of performance milestones for these services.

Contract liabilities from connection fees pertain to customer payments for the set-up of a connection from the customer's establishment to the Group's water or sewer network. These are initially recognized at the time of receipt of customer payments and reclassified to "Connection fees from water and service connections" under "Other operating income" upon provision of the related water and sewer services to customers.

14. Short-term and Long-term Debt

a. *Short-term debt*

On March 5, 2018, MWTC entered into a one-year term facility agreement with Mizuho Bank, Ltd., Bangkok Branch (Mizuho Bangkok), whereby Mizuho Bangkok extended credit to MWTC for THB5.30 billion to finance MWTC's acquisition of the shares in East Water (see Note 11). The loan bears interest of BIBOR plus margin and is guaranteed by the Parent Company.

As of December 31, 2019 and 2018, the carrying value of the short-term debt amounted to nil and ₱8,596.54 million, respectively.

b. *Long-term debt*

The composition of the Group's long-term debt follows:

	2019	2018
USD loans:		
MWMP Loan	**₱5,534,257,976**	₱3,726,897,404
NEXI Loan	**942,100,400**	1,943,410,415
Japanese Yen (JP¥) loans:		
JP¥40.00 billion Loan	**9,481,367,065**	12,931,751,997
MTSP Loan	**391,676,309**	562,501,053
European Dollar (EUR) loan		
EUR0.25 billion Loan	**2,220,970,939**	–
Thailand Baht (THB) loan		
THB5.30 billion MWTC Loan	**8,861,329,985**	–
Canadian Dollar (CAD) loan:		
CAD0.87 million Laguna Water Loan	**33,333,702**	33,333,702
PHP loans:		
₱5.00 billion Metrobank Loan	**4,846,682,341**	4,866,865,987
Fixed Rate Corporate Notes	**4,805,360,512**	4,834,255,682
₱5.00 billion PNB Loan	**4,346,331,341**	4,840,160,200
₱5.00 billion BDO Loan	**3,771,453,745**	–
₱0.50 billion Laguna Water Loan	**66,559,115**	132,913,863
₱0.50 billion Laguna Water DBP Loan	**403,637,664**	432,950,526
₱0.83 billion Laguna Water DBP Loan	**692,821,530**	743,134,519
(Forward)		
₱2.50 billion Laguna Water SBC Loan	**₱2,103,252,749**	₱2,293,533,298
₱2.50 billion Laguna Water BPI Loan	**694,879,786**	–
₱0.50 billion Boracay Water DBP-SBC Loan	**355,563,528**	371,770,818
₱0.50 billion Boracay Water DBP-SBC Loan	**353,916,765**	397,710,122
₱0.65 billion Boracay Water DBP-SBC Loan	**630,127,411**	642,725,465
₱2.40 billion Boracay Water BPI Loan	**595,975,402**	595,629,415
₱1.15 billion Clark Water RCBC Loan	**1,022,358,945**	1,118,652,260
₱0.54 billion Clark Water DBP Loan	**180,000,000**	–
₱0.10 billion Clark Water RCBC Loan	**–**	100,000,000
₱0.80 billion Cebu Water DBP Loan	**612,193,022**	655,809,904
₱85.00 million Zamboanga Water DBP Loan	**79,603,489**	84,709,476
₱4.00 billion MWPVI Loan	**2,928,517,018**	1,340,966,833
₱0.45 billion Tagum Water PNB Loan	**401,537,393**	401,244,632
	56,355,808,132	43,050,927,571
Less current portion	**10,485,712,955**	5,525,372,414
	₱45,870,095,177	₱37,525,555,157

Unamortized debt discounts and issuance costs of the Group's long-term debt are as follows:

	2019	2018
USD loans	**₱43,873,510**	₱52,499,381
JPY loans	**99,030,794**	179,542,477
EUR loan	**33,077,061**	–
THB loan	**48,251,370**	–
PHP loans	**179,547,880**	93,299,672
	₱403,780,615	₱325,341,530

The rollforward analysis of unamortized debt discounts and issuance costs of long-term debt follows:

	2019	2018
Balance at beginning of year	**₱325,341,530**	₱398,366,296
Additions	**204,992,320**	42,176,807
Amortization (Note 17)	**(125,357,757)**	(138,892,431)
Foreign exchange adjustments	**(1,195,478)**	23,690,858
Balance at end of year	**₱403,780,615**	₱325,341,530

Interest expense on short and long-term debt amounted to ₱1,129.02 million, ₱853.28 million, and ₱663.07 million in 2019, 2018, and 2017, respectively (see Note 17).

Parent Company Loans

MWMP Loan

On October 2, 2012, the Parent Company entered into a Subsidiary Loan Agreement with Land Bank of the Philippines under the Metro Manila Wastewater Management Project (MWMP) with the World Bank (MWMP Loan). The MWMP aims to improve wastewater services in Metro Manila through increased wastewater collection and treatment. The loan has a term of twenty-five (25) years and was made available in United States Dollar in the aggregated principal amount of US$137.5 million, payable via semi-annual installments after the seven (7)-year grace period. The Parent Company has made four (4) drawdowns in 2015 with an aggregate amount of US$22.60 million, three (3) drawdowns in 2016 with an aggregate amount of US$17.46 million, three (3) drawdowns in 2017 with a total amount of US$22.40 million, and an additional drawdown in 2018 amounting to US$8.88 million. In 2019, the Parent Company made additional four (4) drawdowns amounting to US$41.68 million. The carrying value of the MWMP loan as of December 31, 2019 and 2018 amounted to S$109.30 million and US$70.88 million, respectively.

NEXI Loan

On October 21, 2010, the Parent Company entered into a term loan agreement (NEXI Loan) amounting to US$150.00 million to partially finance capital expenditures within the East Zone. The loan has a tenor of ten (10) years and is financed by a syndicate of four (4) banks, namely, ING N.V Singapore, Mizuho Corporate Bank, Ltd., The Bank of Tokyo-Mitsubishi UFJ Ltd., and Sumitomo Mitsui Banking Corporation, and is insured by Nippon Export and Investment Insurance. The first, second, and third drawdowns of the loan amounted to US$84.00 million, US$30.00 million, and US$36.00 million, respectively. The carrying value of the loan as of December 31, 2019 and 2018 amounted to US$18.61 million and US$36.96 million, respectively.

JP¥40 billion Loan

On September 30, 2015, the Parent Company signed a seven (7)-year JP¥40.00 billion term loan facility, payable semi-annually, with three (3) international banks: MUFJ Bank, Ltd., Mizuho Bank, Ltd., and Sumitomo Mitsui Banking Corporation. The proceeds of the loan will be used to finance the Parent Company's capital expenditures. The Parent Company made its first drawdown on March 9, 2016 amounting to JP¥13.40 billion. In 2017, the Parent Company made two (2) additional drawdowns totaling JP¥26.60 billion. The loan's carrying value as of December 31, 2019 and 2018 amounted to JP¥20,482.54 million and JP¥27,219.01 million, respectively.

MTSP Loan

On October 20, 2005, the Parent Company entered into a Subsidiary Loan Agreement with Land Bank of the Philippines (MTSP Loan) to finance the improvement of the sewerage and sanitation conditions in the Manila Concession. The loan has a term of seventeen (17) years and was made available in Japanese Yen in the aggregate principal amount of JP¥6.59 billion payable via semi-annual installments after the five (5)-year grace period.

The Parent Company made its last drawdown on October 26, 2012. Total drawn amount from the loan is JP¥3.99 billion. As of December 31, 2019 and 2018, the outstanding balance of the MTSP loan amounted to JP¥846.14 million and JP¥1,183.96 million, respectively.

BOC Loan

On August 27, 2019, the Parent Company entered into a syndicated loan agreement amounting to €250.00 million to fund the capital investment program for 2019 to 2020. The loan will be prepaid in eight (8) installments starting April 2023 and is financed by a syndicate of two banks namely Bank of China (Hong Kong) Limited and Bank of China Limited, Manila Branch. The Parent Company has made a drawdown amounting to €40.00 million in 2019. The carrying value of the loan as of December 31, 2019 amounted to €39.41 million.

₱5.00 billion Metrobank Loan

On August 16, 2013, the Parent Company entered into a Credit Facility Agreement (₱5.00 billion Metrobank Loan) with Metropolitan Bank and Trust Company (Metrobank) having a fixed nominal rate of 4.42% and with a term of seven (7) years from the issue date and is payable annually. The Parent Company may repay the whole and not a part only of the loan starting on the 3rd anniversary of the drawdown date of such loan or on any interest payment date thereafter. The carrying value of the loan as of December 31, 2019 and 2018 amounted to ₱4,846.68 million and ₱4,866.87 million, respectively.

Fixed Rate Corporate Notes
On April 8, 2011, the Parent Company issued ₱10.00 billion notes (Fixed Rate Corporate Notes) with ₱5.00 billion having a term of five (5) years (Five-Year FXCN Note) from the issue date and the other ₱5.00 billion with a term of ten (10) years (Ten-Year FXCN Note) from the issue date, both of which is payable quarterly. The Parent Company may repay the whole and not a part only of the Ten-Year FXCN Note on the 7th anniversary of the drawdown date of such FXCN Note or on any FXCN interest payment date thereafter.

On April 8, 2016, the Parent Company repaid the outstanding balance of the Five-Year FXCN in bullet as scheduled. The carrying value of the fixed rate corporate notes as of December 31, 2019 and 2018 amounted to ₱4,805.36 million and ₱4,834.26 million, respectively.

₱5.00 billion Philippine National Bank (PNB) Loan
On May 11, 2018, the Parent Company signed a ₱5.0 billion, ten (10)-year term loan facility with the PNB. The loan will be used to finance general corporate requirements and capital investment programs in the East Zone as well as to refinance existing concessionaire loans. On July 31, 2018, the Parent Company made its first and only drawdown amounting to ₱5.0 billion. The carrying value of the loan as of December 31, 2019 and 2018 amounted to ₱4,346.33 million and ₱4,840.16 million, respectively.

₱5.00 billion BDO Loan
On November 13, 2019, the Parent Company signed a ₱5.00 billion, five (5)-year term, revolver loan facility with BDO Unibank with principal payable at bullet after sixty (60) months. The loan will be used for the expansion and improvement of the water source, distribution and sewerage systems, and other general corporate requirements as well as to refinance existing concessionaire loans. The Company has made two (2) drawdowns in 2019 amounting to ₱3,800.00 million. The carrying value of the loan as of December 31, 2019 amounted to ₱3,771.45 million.

Amendments to Omnibus Agreements, Intercreditor Agreement and Loan Agreements
On July 17, 2008, the Parent Company, together with all of its lenders, signed an Omnibus Amendment Agreement and Intercreditor Agreement and these agreements became effective on September 30, 2008.

Prior to the execution of the Omnibus Amendment Agreement, the obligations of the Parent Company to pay amounts due and owing or committed to be repaid to the lenders under the existing facility agreements were secured by Assignments of Interests by Way of Security executed by the Parent Company in favor of a trustee acting on behalf of the lenders. The Assignments were also subject to the provisions of the Amended and Restated Intercreditor Agreement dated March 1, 2004 and its Amendatory Agreement dated December 15, 2005 executed by the Parent Company, the lenders and their appointed trustee.

Under the Omnibus Amendment Agreement, the lenders effectively released the Parent Company from the assignment of its present and future fixed assets, receivables, and present and future bank accounts, all the Project Documents (except for the Agreement, Technical Corrections Agreement and the Department of Finance Undertaking Letter), all insurance policies where the Parent Company is the beneficiary and performance bonds posted in its favor by contractors or suppliers.

In consideration for the release of the assignment of the above-mentioned assets, the Parent Company agreed not to create, assume, incur, permit or suffer to exist, any mortgage, lien, pledge, security interest, charge, encumbrance or other preferential arrangement of any kind, upon or with respect to any of its properties or assets, whether now owned or hereafter acquired, or upon or with respect to any right to receive income, subject only to some legal exceptions. The lenders shall continue to enjoy their rights and privileges as Concessionaire Lenders (as defined under the Agreement), which include the right to appoint a qualified replacement operator and the right to receive payments and/or other consideration pursuant to the Agreement in case of a default of either the Parent Company or MWSS. Currently, all lenders of the Parent Company are considered Concessionaire Lenders and are on *pari passu* status with one another.

In November and December 2014, the Parent Company signed Amendment Agreements to its loan agreements with its existing lenders. This effectively relaxed certain provisions in the loan agreements providing the Parent Company more operational and financial flexibility. The loan amendments include the shift to the use of the Parent Company from consolidated financial statements to stand-alone financial statements for the purposes of calculating the financial covenant ratios, the increase in maximum debt to equity ratio to 3:1 from 2:1 and the standardization of the definition of debt service coverage ratio at a minimum of 1.2:1 across all loan agreements.

Laguna Water Loans
On September 7, 2010, Laguna Water entered into a loan agreement with two (2) local banks for the financing of its construction, operation, maintenance, and expansion of facilities in its servicing area. Pursuant to the loan agreement, the lenders have agreed to provide loans to Laguna Water up to ₱500.00 million, the principal payments of which will be made in thirty (30) consecutive equal quarterly installments starting August 2013. The first and second drawdowns from the loan were made in November 2010 and June 2011 amounting to ₱250.00 million each. The carrying value of this loan amounted to ₱66.56 million and ₱132.91 million as of December 31, 2019 and 2018, respectively.

On April 29, 2013, Laguna Water entered into a loan agreement with DBP to partially finance the modernization and expansion of the water network system and water supply facilities in Biñan, Sta. Rosa and Cabuyao, Laguna. Under the agreement, the lender has agreed to provide a loan to the borrower through the Philippine Water Revolving Fund (PWRF) in the aggregate principal amount of

up to ₱500.00 million bearing an effective interest rate of 7.29%. The first and second drawdowns were made in July and November 2013 which amounted to ₱250.00 million each. The carrying value of this loan as of December 31, 2019 and 2018 amounted to ₱403.64 million and ₱432.95 million, respectively.

On January 9, 2014, Laguna Water exercised its option to avail of the second tranche of its loan agreement with DBP, to finance its water network and supply projects, including the development of a well-field network in the Biñan, Sta. Rosa area of Laguna. Under the expanded facility agreement, the lender provided additional loans to Laguna Water in the aggregate principal amount of ₱833.00 million. The first and second drawdowns were made in January and May 2014, respectively, amounting to ₱416.50 million each. The carrying value of the loan amounted to ₱692.82 million and ₱743.13 million as of December 31, 2019 and 2018, respectively.

On October 23, 2015, Laguna Water entered into a loan agreement with Security Bank Corp. (SBC) to finance the modernization and expansion of its water network system and water supply facilities throughout the province of Laguna. Under the loan agreement, the lender agreed to provide a loan to the borrower in the aggregate principal amount of up to ₱2.50 billion for an applicable fixed interest rate, as determined in respect of each drawdown. The first drawdown was made in December 2015 amounting to ₱600.00 million bearing an effective interest rate of 6.14%. The second drawdown was made in two tranches in April 2016 amounting to ₱150.00 million and ₱300.00 million bearing effective interest rates of 5.98% and 6.39%, respectively. The third drawdown was made in September 2016 amounting to ₱400.00 million bearing an effective interest rate of 5.53%. The fourth drawdown was made in three (3) tranches, the first tranche in March amounting to ₱100.00 million bearing an effective interest rate of 6.34% and the second and third tranches in April 2017 amounting to ₱50.00 million and ₱350.00 million bearing an effective interest rate of 6.50% and 6.54%, respectively. The fifth drawdown was made in two (2) tranches in September 2017 amounting to ₱150.00 million and ₱400.00 million bearing an effective interest rate of 6.31% and 6.42%, respectively. The carrying value of the loan amounted to ₱2,103.25 million and ₱2,293.53 million as of December 31, 2019 and 2018, respectively.

On March 29, 2017, Laguna Water entered into a loan agreement with Grand Challenges Canada to fund a project during the period beginning on the effective date of the loan agreement and ending on the project end date of March 31, 2018 for up to an aggregate principal amount of CAD873,000. The project supported by the loan is the "Bundling water and sanitation services for the poor in informal urban communities." As of December 31, 2019 and 2018, the carrying value of the loan amounted to CAD873,000.

On June 28, 2019, Laguna Water signed a ten (10)-year term loan facility amounting to ₱2.50 billion with the Bank of the Philippine Islands. The loan will be used to partially finance Laguna Water's capital expenditure program. The first drawdown was made in July 2019 amounting to ₱200.00 million bearing an effective interest rate of 6.06%. The second drawdown was made in December 2019 amounting to ₱500.00 million bearing effective interest rates of 6.05%. The carrying value of the loan amounted to ₱694.88 million as of December 31, 2019.

Boracay Water Loans
On July 29, 2011, Boracay Water entered into an Omnibus Loan and Security Agreement with DBP and SBC to finance the construction, operation, maintenance and expansion of facilities for the fulfillment of certain service targets for water supply and waste water services for its service area under its concession agreement with TIEZA, as well as the operation and maintenance of the completed drainage system. The loan shall not exceed the principal amount of ₱500.00 million and is payable in twenty (20) years inclusive of a three (3)-year grace period.

Omnibus loan and security agreement - Sub-tranche 1
The loan shall be available in three sub-tranches, as follows:

- Sub-tranche 1A, the loan in the amount of ₱250.00 million to be provided by DBP and funded through Philippine Water Revolving Fund (PWRF);
- Sub-tranche 1B, the loan in the amount of ₱125.00 million to be provided by SBC and funded through PWRF; and
- Sub-tranche 1C, the loan in the amount of ₱125.00 million to be provided by SBC and funded through its internally-generated funds.

The first, second, and final loan drawdowns amounted to ₱150.00 million on August 25, 2011, ₱155.00 million on August 25, 2012, and ₱195.00 million on August 23, 2013, respectively. The carrying value of the loan as of December 31, 2019 and 2018 amounted to ₱355.56 million and ₱371.77 million, respectively.

Omnibus loan and security agreement - Sub-tranche 2
The Agreement provided Boracay Water the option to borrow additional loans from the lenders. On November 14, 2012, Boracay Water entered into the second omnibus loan and security agreement with DBP and SBC. The agreed aggregate principal of the loan amounted to ₱500.00 million which is available in three sub-tranches:

- Sub-tranche 2A, the loan in the amount of ₱250.00 million to be provided by DBP and funded through Philippine Water Revolving Fund (PWRF);
- Sub-tranche 2B, the loan in the amount of ₱125.00 million to be provided by SBC and funded through PWRF; and
- Sub-tranche 2C, the loan in the amount of ₱125.00 million to be provided by SBC and funded through its internally-generated funds.

The first, second, and final loan drawdowns amounted to ₱75.00 million on November 23, 2012, ₱200.00 million on August 26, 2014, and ₱225.00 million on November 25, 2015, respectively. The carrying value of the loan as of December 31, 2019 and 2018 amounted to ₱353.92 million and ₱397.71 million, respectively.

Omnibus Loan and Security Agreement – Sub-tranche 3
On October 9, 2014, Boracay Water signed a Third Omnibus Loan and Security Agreement amounting to ₱650.00 million with SBC. The loan will be used to fund the capital expenditures which will be used to provide water and sewerage services in the concession area of Boracay Water. The first, second, and third drawdowns on this loan were made on November 25, 2016, May 25, 2017, and September 25, 2017, amounting to ₱200.00 million, ₱250.00 million, ₱200.00 million, respectively. The carrying value of loan as of December 31, 2019 and 2018 amounted to ₱630.13 million and ₱642.73 million, respectively.

Omnibus Loan and Security Agreement – Bank of the Philippine Islands (BPI)
On December 20, 2017, Boracay Water signed a Fourth Omnibus Loan and Security Agreement in the amount of ₱2.40 billion with the BPI. The loan will be used to finance the general corporate and capital expenditures requirements of Boracay Water. The first, second, and third drawdowns on this loan were made on April 30, 2018, September 25, 2018, and December 20, 2018, amounting to ₱250.00 million, ₱250.00 million, ₱100.00 million, respectively. The carrying value of loan as of December 31, 2019 and 2018 amounted to ₱595.98 million and ₱595.63 million, respectively.

Clark Water Loans
On April 10, 2015, Clark Water entered into a loan agreement with Rizal Commercial Banking Corporation (RCBC), whereby RCBC extended credit to Clark Water for up to ₱1.15 billion to partially finance its concession capital expenditures program. Under the agreement, the loan bears interest at a rate ranging from 6.13% to 6.56%, and principal payments will be made in forty-eight (48) consecutive equal quarterly installments starting December 2018. The first and second drawdowns on the loan were made on September 29, 2015 and December 29, 2015, amounting to ₱800.00 million and ₱200.00 million, respectively. The last drawdown was made on August 29, 2016 amounting to ₱150.00 million. The carrying value of the loan amounted to ₱1,022.36 million and ₱1,118.65 million as of December 31, 2019 and 2018, respectively.

On December 12, 2018, Clark Water availed of a fifteen (15)-month term loan with RCBC amounting to ₱100.00 million to finance its working capital requirements. Under the agreement, the loan bears interest at the rate of 7.55% payable monthly. The repayment for the loan was made on March 22, 2019. The carrying value of the loan amounted to nil and ₱100.00 million as of December 31, 2019 and 2018, respectively.

On March 11, 2019, Clark Water signed a term loan agreement amounting to ₱535.00 million with the Development Bank of the Philippines. The proceeds of the loan will be used to partially finance Clark Water's capital expenditure programs. Under the agreement, principal payments will be made in forty-eight (48) consecutive equal quarterly installments starting March 2022. The first and second drawdowns on this loan were made on March 22, 2019 and December 20, 2019, amounting to ₱100.00 million and ₱80.00 million, respectively. The carrying value of the loan amounted to ₱180.00 million as of December 31, 2019.

Cebu Water Loan
On December 19, 2013, Cebu Water entered into an Omnibus Loan and Security Agreement with the Development Bank of the Philippines (DBP) to partially finance the construction works in relation to its bulk water supply project in Cebu. The lender has agreed to extend a loan facility in the aggregate principal amount of ₱800.00 million or up to 70% of the total project cost, whichever is lower. Principal payments will be made in twenty (20) equal quarterly installments starting December 2017.

In 2013, MW Consortium entered into a real estate mortgage agreement with the DBP, as third-party mortgagor, in consideration for this Cebu Water loan.

The first, second, and final drawdowns on the loan facility amounted to ₱541.13 million on December 20, 2013, ₱195.64 million on May 20, 2014, and ₱14.79 million on November 14, 2014, respectively. The carrying value of the loan as of December 31, 2019 and 2018 amounted to ₱612.19 million and ₱655.81 million, respectively.

Zamboanga Water Loan
On June 30, 2016, Zamboanga Water entered into an Omnibus Loan and Security Agreement in the amount of ₱85.00 million with DBP. The proceeds of the loan will be used to partially finance Zamboanga Water's capital expenditures in relation to its NRW reduction and management program in Zamboanga City. The first, second, and third loan drawdowns were made on July 29, 2016, September 1, 2016, and September 27, 2017 amounting to ₱30.00 million, ₱30.00 million, and ₱25.00 million, respectively. The carrying value of the loan as of December 31, 2019 and 2018 amounted to ₱79.60 million and ₱84.71 million, respectively.

MWPVI Loan
On October 5, 2016, MWPVI signed a fifteen (15)-year fixed rate term loan facility amounting to ₱4.00 billion with SBC and Metrobank. The terms of the loan include an option to increase the size of the facility to a maximum of ₱7.00 billion. The proceeds of the loan will be used to finance MWPVI's capital expenditures, future acquisitions and other general corporate requirements.

On February 24, 2017, MWPVI made a bridge loan drawdown amounting to ₱150.00 million each from SBC and Metrobank. These bridge loans had a fixed rate of 2.75% and a 119-day term. On June 23, 2017, these bridge loans were rolled-over for additional 180 days with a rate of 2.90%, repriced monthly. On November 9, 2017, MWPVI repaid its ₱300.0 million bridge loan and made the first drawdown on its loan facility amounting to ₱450.00 million from each bank.

On October 5 and December 19, 2018, MWPVI made its subsequent drawdowns amounting to ₱50.00 million and ₱175.00 million from each bank, respectively. In 2019, MWPVI made additional drawdowns totaling to ₱800.00 million from each bank. The carrying value of the loan as of December 31, 2019 and 2018 amounted to ₱2,928.52 million and ₱1,340.97 million, respectively.

These loan drawdowns have a term of thirteen (13) to fifteen (15) years, with interest payable semi-annually and principal repayments starting on November 9, 2022.

Tagum Water Loan
On October 6, 2016, Tagum Water signed an Omnibus Loan and Security Agreement in the amount of ₱450.00 million with the PNB. The loan will be used to partially finance the construction works in relation to the Tagum Bulk Water Supply Project. Nominal interest is at 5.30% per annum, payable quarterly. Principal payments will be made in forty-eight (48) equal quarterly installments starting December 2020. The first, second, and third drawdowns on this loan were made on September 25, 2017, April 18, 2018, and November 23, 2018, amounting to ₱130.00 million, ₱120.00 million, and ₱154.00 million, respectively. The carrying value of the loan as of December 31, 2019 and 2018 amounted to ₱401.54 million and ₱401.24 million, respectively.

MWTC Loan
On February 27, 2019, MWTC signed a THB5.30 billion, five (5)-year term loan facility with Mizuho Bank Ltd. – Bangkok Branch and Bank of Ayudhya Public Company Limited to refinance the previous bridge loan used for the acquisition of an 18.72% equity stake in East Water. This loan bears interest of BIBOR plus margin and is guaranteed by the Parent Company. The carrying value of the loan as of December 31, 2019 amounted to THB5,271.30 million.

Boracay Water, Laguna Water, Clark Water, Zamboanga Water and MWPV have assigned their rights under their respective concession agreements or project documents as their loan collateral, while Cebu Water and Tagum Water's loans are secured by real estate mortgages on real assets.

Compliance with loan covenants
All these loan agreements provide for certain covenants which must be complied by the Group which include compliance with certain financial ratios such as the debt-to-equity and debt-service-coverage ratios. As of December 31, 2019 and 2018, the Group was in compliance with all the loan covenants required by the creditors and has not received any written notice of default from lenders or the trustees.

15. Retirement Plan

The Parent Company, Clark Water, Laguna Water, Boracay Water and MWPVI have funded a noncontributory defined benefit pension plans covering substantially all of their respective regular employees. The benefits are based on current salaries and years of service and compensation as of the last year of employment. The latest actuarial valuations were made on December 31, 2019.

RA No. 7641, the existing regulatory framework, requires a provision for retirement pay to qualified private sector employees in the absence of any retirement plan in the entity, provided however that the employee's retirement benefits under any collective bargaining and other agreements shall not be less than those provided under law. The law does not require minimum funding for the plan.

The Parent Company's funding policies state that equivalent target funding ratio must always be at least 80% and should the ratio reach 120%, the Retirement and Welfare Plan Committee may opt to declare a funding holiday. In the event there is an extraordinary increase in defined benefit obligation, which may arise from benefit improvement, massive hiring and the other extraordinary personnel movements, the Parent Company has a maximum of three (3) years to comply with the required minimum funding ratio of 80%.

The retirement plans of Parent Company, Clark Water, Laguna Water, Boracay Water, and MWPVI are each covered by a retirement fund administered by trustee banks, which are under the supervision of their respective Retirement and Welfare Plan Committees (the "Committees"). The Committees, which are composed of six (6) to seven (7) members appointed by management, defines the investment strategy of the fund and regularly reviews the strategy based on market developments and changes in the plan structure. When defining the investment strategy, the Committees take into account the plan's objectives, benefit obligations, and risk capacity. The Committees review, on a quarterly basis, the performance of the funds managed by trustee banks.

Changes in net defined benefit liability of funded retirement plans are as follows:

	2019		
	Present value of defined benefit obligations	**Fair value of plan assets**	**Net defined benefit liabilities**
Balance at beginning of year	**₱908,610,900**	**₱799,219,100**	**₱109,391,800**
Net benefit costs in profit or loss:			
Current service cost	**95,216,969**	**–**	**95,216,969**
Net interest (Note 17)	**74,957,894**	**66,027,368**	**8,930,526**
	170,174,863	**66,027,368**	**104,147,495**
Remeasurements in other comprehensive income:			
Return on plan assets (excluding amount included in interest)	**–**	**12,687,925**	**(12,687,925)**
Actuarial changes arising from:			
Experience adjustments	**(49,041,524)**	**–**	**(49,041,524)**
Changes in demographic assumptions	**197,602**	**–**	**197,602**
Changes in financial assumptions	**152,056,966**	**–**	**152,056,966**
	103,213,044	**12,687,925**	**90,525,119**
Benefits paid	**(108,389,176)**	**(108,389,176)**	**–**
Transfers	**(449,737)**	**–**	**(449,737)**
Contributions	**–**	**109,420,400**	**(109,420,400)**
Balance at end of year	**₱1,073,159,894**	**₱878,965,617**	**₱194,194,277**

	2018		
	Present value of defined benefit obligations	Fair value of plan assets	Net defined benefit liabilities
Balance at beginning of year	₱923,796,600	₱898,401,840	₱25,394,760
Net benefit costs in profit or loss:			
Current service cost	77,968,300	–	77,968,300
Net interest (Note 17)	48,995,600	49,300,560	(304,960)
	126,963,900	49,300,560	77,663,340
Remeasurements in other comprehensive income:			
Return on plan assets (excluding amount included in interest)	–	(75,904,200)	75,904,200
Actuarial changes arising from:			
Experience adjustments	26,340,800	–	26,340,800
Changes in financial assumptions	(47,200,100)	–	(47,200,100)
	(20,859,300)	(75,904,200)	55,044,900
Benefits paid	(121,290,300)	(121,290,300)	–
Contributions	–	48,711,200	(48,711,200)
Balance at end of year	₱908,610,900	₱799,219,100	₱109,391,800

The components of the fair value of plan assets are as follows:

	2019	2018
Assets:		
Cash and cash equivalents	**₱3,328,627**	₱7,679,390
Debt investments - domestic	**664,641,346**	608,040,928
Equity investments - domestic	**208,745,776**	178,324,046
Interest receivable	**2,831,395**	5,832,273
Other receivable	**13,000**	67,212
	879,560,144	799,943,849
Liabilities:		
Accrued trust fees	**594,527**	591,484
Other payables	**–**	133,265
	594,527	724,749
Fair value of plan assets	**₱878,965,617**	₱799,219,100

All equity and debt investments held have quoted prices in active markets. The remaining plan assets do not have quoted market prices in active markets.

The plan assets are invested in different financial instruments and do not have any concentration risk.

The cost of defined benefit pension plans and the present value of the pension obligation are determined using actuarial valuations. The actuarial valuations involve making various assumptions. The principal assumptions used in determining pension obligations for the defined benefit plans are shown below:

	2019	2018	2017
Discount rate	**5.61%**	8.25% to 8.50%	4.50% to 5.75%
Salary increase rate	**6.00%**	5.00% to 7.00%	3.00% to 5.00%

The sensitivity analysis below has been determined based on reasonably possible changes of each significant assumption on the defined benefit obligation as of the end of the reporting period, assuming all other assumptions were held constant:

		Effect on Defined Benefit Obligation	
	Increase (Decrease)	**2019**	2018
Discount rate	1.00%	**(₱86,623,211)**	(₱33,980,700)
	(1.00%)	**103,693,351**	48,292,208
Salary increase rate	1.00%	**102,219,091**	48,556,874
	(1.00%)	**(87,083,405)**	(34,579,187)

Shown below is the maturity analysis of the undiscounted benefit payments:

	2019	2018
Less than 1 year	**₱175,094,816**	₱63,013,600
More than 1 year and up to 5 years	**510,452,410**	536,003,800
More than 5 years and up to 10 years	**379,059,205**	827,943,100
	₱1,064,606,431	₱1,426,960,500

The average duration of the defined benefit obligation at the end of the reporting period is 11.66 years and 12.65 years as of December 31, 2019 and 2018, respectively.

The asset allocation of the plan is set and reviewed from time to time by the Committee taking into account the membership profile and the liquidity requirements of the plan. This also considers the expected benefit cash flows to be matched with asset durations.

Contributions to the plan are recommended by the Retirement and Welfare Plan Committee and approved by the Parent Company, Clark Water, Laguna Water, Boracay Water, and MWPVI in consideration of the contribution advice from the actuary. There are no expected contributions from the Parent Company, Clark Water, Laguna Water, Boracay Water, and MWPVI to their respective defined benefit pension plans in 2020 based on the latest actuarial valuation report.

As of December 31, 2019 and 2018, the plan assets include shares of stock of Ayala, ALI, BPI, and Globe Telecom, Inc. (Globe) with a total fair value of ₱32.10 million and ₱24.91 million, respectively.

16. Other Noncurrent Liabilities

Other noncurrent liabilities consist of:

	2019	2018
Deferred credits	**₱449,478,831**	₱442,135,108
Customers' guaranty deposits and other deposits	**382,329,799**	334,643,538
	₱831,808,630	₱776,778,646

Deferred credits pertain to the unamortized discounts of the customers' guaranty deposits. The rollforward analysis of the deferred credits follows:

	2019	2018
Balance at beginning of year	**₱442,135,108**	₱425,098,105
Additions	**21,374,645**	29,572,605
Amortization	**(14,030,922)**	(12,535,602)
Balance at end of year	**₱449,478,831**	₱442,135,108

Customers' guaranty deposits and other deposits pertain to the deposits paid by the Group's customers for the set-up of new connections which will be refunded to the customers upon termination of the customers' water service connections or at the end of the concession, whichever comes first.

17. Other Operating Income, Operating Expenses, Interest Income and Interest Expense

Other operating income consist of:

	2019	2018	2017
Supervision fees (Note 21)	**₱882,249,033**	₱425,990,731	₱396,414,261
Pipeworks and integrated used water services	**198,681,476**	121,407,650	103,523,812
Connection fees from water and service connections	**161,614,281**	268,300,671	242,759,186
Performance fees	**161,249,985**	34,349,384	71,865,738
Sale of packaged water	**139,860,404**	206,099,390	208,891,056
Operations and maintenance services	**111,523,478**	99,751,722	90,249,931
Income from customer late payments	**42,798,341**	26,576,051	19,623,217
Septic sludge disposal and bacteriological water analysis	**40,357,997**	37,296,665	24,686,051
Reconnection fee	**30,527,248**	49,874,392	30,913,542
Construction revenue	**2,517,958**	29,900,877	7,556,184
Service fees	**1,352,395**	20,672,519	16,196,954
Miscellaneous	**89,724,070**	44,501,986	97,171,806
	₱1,862,456,666	₱1,364,722,038	₱1,309,851,738

Miscellaneous includes income from rental of equipment, other customer related fees, consultancy services and sale of signages.

Operating expenses consist of:

	2019	2018	2017
Salaries, wages and employee benefits (Notes 15 and 21)	**₱1,169,183,967**	₱1,240,073,664	₱995,551,159
Provisions and MWSS penalty (Notes 1 and 29)	**1,224,695,546**	–	–
Depreciation and amortization (Notes 9, 10 and 28)	**414,913,724**	446,919,369	350,945,322
Management, technical and professional fees (Note 21)	**327,734,690**	503,379,095	325,376,050
Taxes and licenses	**283,302,672**	318,971,665	216,964,372
Repairs and maintenance	**259,780,361**	179,504,807	112,884,907
Occupancy costs (Notes 21, 23 and 28)	**212,433,923**	255,441,022	197,075,070
Insurance	**117,475,389**	85,043,193	85,733,410
ECL on receivables and concession financial receivables (Notes 6 and 10)	**62,233,528**	178,212,764	588,892,219
Contractual services	**90,634,800**	184,621,722	63,928,374
Transportation and travel	**88,335,867**	99,274,788	88,986,891
Printing and communication (Note 21)	**67,446,659**	70,197,094	52,660,675
Advertising	**56,236,100**	33,558,084	39,460,448
Business meetings and representation	**44,756,607**	56,895,352	56,128,168
Donations	**21,033,371**	44,273,571	31,844,901
Other expenses	**81,433,724**	99,195,123	135,884,781
	₱4,521,630,928	₱3,795,561,313	₱3,342,316,747

Other expenses include expenses incurred for bank charges and equipment rental.

Interest income consists of:

	2019	2018	2017
Interest income on:			
Cash and cash equivalents and short-term investments (Note 5)	**₱231,663,632**	₱255,350,212	₱116,519,563
Finance income from concession financial receivables and contract assets (Notes 6 and 10)	**144,213,539**	125,905,858	181,095,164
Receivable from BWC (Note 6)	**27,814,005**	28,083,490	34,641,123
Others	**964,990**	2,543,455	13,481,946
	₱404,656,166	₱411,883,015	₱345,737,796

Interest expense consists of:

	2019	2018	2017
Interest expense on:			
Service concession obligations, deposits and others (Notes 10 and 16)	**₱782,447,785**	₱789,711,898	₱614,716,588
Long-term debt (Note 14):			
Coupon interest	**1,129,017,814**	853,283,533	663,071,455
Amortization of debt discount, issuance costs and premium	**125,357,757**	138,892,431	124,780,167
Lease liabilities (Note 28)	**28,955,075**	–	–
Pension liabilities (Note 15)	**8,930,526**	1,920,740	667,900
	₱2,074,708,957	₱1,783,808,602	₱1,403,236,110

Other income (loss) consists of:

	2019	2018	2017
Impairment losses (Notes 9 and 11)	**(₱74,325,257)**	(₱136,735,300)	₱–
Gain on bargain purchase (Note 4)	**18,332,330**	43,753,620	54,907,714
Refund income	**7,097,025**	51,961,022	–
Others - net	**25,255,294**	156,192,830	164,213
	(₱23,640,608)	₱115,172,172	₱55,071,927

Others include reversals long-outstanding accounts amounting to ₱25.55 million and ₱168.93 million in 2019 and 2018, respectively (nil in 2017); and a net gain on the settlement of the receivable from BWC ₱52.40 million in 2019.

18. Income Tax

Provision for income tax consists of:

	2019	2018	2017
Current	**₱2,184,079,922**	₱2,139,558,945	₱1,939,963,622
Final	**8,183,068**	10,268,252	3,658,234
Deferred	**182,405,122**	(173,469,903)	(1,693,284)
	₱2,374,668,112	₱1,976,357,294	₱1,941,928,572

The reconciliation of the statutory income tax rate to the effective income tax rate follows:

	2019	2018	2017
Statutory income tax rate	**30.00%**	30.00%	30.00%
Tax effects of:			
Change in unrecognized deferred tax	**0.25**	0.59	(0.26)
Excess of 40% Optional Standard Deduction (OSD) against allowable deductions	**(20.21)**	(22.90)	1.45
Interest income subjected to final tax	**0.04**	0.01	(0.39)
Nontaxable equity in net earnings of associates	**(2.45)**	(2.44)	(1.70)
Nondeductible expense	**60.68**	51.72	39.01
Income exempt from tax	**(39.03)**	(33.44)	(38.65)
Others - net	**0.35**	(0.60)	(5.43)
Effective income tax rate	**29.63%**	22.94%	24.03%

The net deferred tax assets of the Group pertain to the deferred income tax effects of the following:

	2019	2018
Deferred tax assets:		
Service concession obligations - net	**₱1,369,810,971**	₱1,449,136,032
Allowance for ECL	**81,787,502**	75,697,643
Provisions and accruals	**60,300,922**	45,343,424
Pension liabilities	**10,012,235**	3,251,804
Others	**61,326,445**	5,467,978
	1,583,238,075	1,578,896,881
Deferred tax liabilities:		
Difference between amortization expense of SCA per straight line method and per UOP	**(393,533,422)**	(215,292,728)
Right-of-use assets	**(897,596)**	–
	(394,431,018)	(215,292,728)
	₱1,188,807,057	₱1,363,604,153

The components of the net deferred tax liabilities of the Group as of December 31, 2019 and 2018 represent the deferred income tax effects of the following:

	2019	2018
Deferred tax liabilities:		
Difference between amortization expense of SCA per straight-line method and per UOP	**₱74,086,290**	₱51,560,089
Contract asset	**50,136,421**	–
Accrued receivables	**27,142,321**	8,495,896
Concession financial receivable	**26,367,070**	72,792,866
Gain on bargain purchase	**24,236,606**	21,399,859
Others	**2,472,245**	–
	204,440,953	154,248,710
(Forward)		
Deferred tax assets:		
Net Operating Loss Carryover (NOLCO)	**(₱25,974,142)**	(₱11,621,941)
Allowance for ECL	**(18,257,823)**	(31,485,042)
Contract liability	**(10,517,997)**	
Pension liabilities	**(9,042,305)**	(5,363,988)
Provisions and accruals	**–**	(421,910)
Others	**(3,501,210)**	(2,251,201)
	(67,293,477)	(51,144,082)
	₱137,147,476	₱103,104,628

Parent Company

RR No. 16-2008 was issued by the BIR to implement Section 34 (L) of the National Internal Revenue Code of 1997, as amended by Section 3 of RA No. 9504 on the use of Optional Standard Deductions (OSD) for individuals and corporations. The OSD allowed to

corporate taxpayers shall be in an amount not exceeding forty percent (40%) of their gross income. Gross income refers to gross sales or gross revenue derived from any business activity, net of returns and allowances, less cost of sales or direct costs but before any deduction is made for administrative expenses or incidental losses. This was applied by the Parent Company for the years ended December 31, 2019, 2018 and 2017.

The use of OSD as the method of computing tax deductible expenses affected the recognition of several deferred tax assets and liabilities, such that no deferred tax assets and liabilities were recognized on items of income and expenses that are not considered in determining gross income for income tax purposes. The Parent Company forecasts that it will continue to avail of the OSD, such that the manner by which it will recover or settle the underlying assets and liabilities, for which the deferred tax assets and liabilities were initially recognized, would not result in any future tax consequence under OSD.

The effective tax rate of 18% for the years in which OSD is projected to be utilized was used in computing the deferred income taxes on the net service concession obligation starting 2008.

Deferred taxes on allowance for ECL and pension liability were not recognized by the Parent Company. The net reduction in deferred tax assets from applying the 18% effective tax rate to the recognized deferred taxes on net service obligation and the derecognition of the deferred taxes relating to the accounts with temporary differences which are not considered in determining gross income for income tax purposes by the Parent Company amounted to ₱130.41 million and ₱288.21 million as of December 31, 2019 and 2018, respectively.

Subsidiaries
The Parent Company's subsidiaries, namely, MWTS, Calasiao Water, Filipinas Water, Obando Water, Bulakan Water, Ilagan Water, South Luzon Water, North Luzon Water, MW Consortium, Davao Water, Tagum Water, BMDC, MWTV, EcoWater, and Calbayog Water have total NOLCO amounting to ₱397.54 million and ₱107.49 million as of December 31, 2019 and 2018, respectively, which may be used as deduction against future taxable gross income. No deferred tax assets were recognized on these future deductible losses. As of December 31, 2019 and 2018, the unrecognized deferred tax assets on NOLCO amounted to ₱119.26 million and ₱32.25 million, respectively.

Clark Water
Clark Water as a duly registered CFZ enterprise under RA No. 9400, An Act Amending RA No. 7227 otherwise known as the Bases Conversion and Development Act of 1992, is entitled to all the rights, privileges and benefits established thereunder including tax and duty-free importation of raw materials and capital equipment and special income tax rate of 5% applied on its gross income earned in lieu of all national and local taxes.

Laguna Water
Laguna Water availed of the OSD, as such the effective tax rate of 18% was used in computing the deferred income taxes of Laguna Water for the years in which OSD is projected to be utilized.

Other subsidiaries
All other domestic subsidiaries of the Parent Company used the Itemized Deduction in determining the amount of their deductible expenses for income tax purposes. As a result, the applicable income tax rate is the Regular Corporate Income Tax rate of 30% and Minimum Corporate Income Tax rate of 2%, while foreign subsidiaries are subject to tax rates applicable in their respective countries.

NOLCO
The movements of the Group's NOLCO as of December 31, 2019, which may be used against future taxable income, but not beyond three (3) succeeding taxable years counted from the year the NOLCO was generated, and for which no deferred tax assets have been recognized are as follows:

Year Incurred	Amount	Applied/Expired	Balance	Expiry Year
2016	₱34,130,009	₱34,130,009	₱–	2019
2017	24,313,723	–	24,313,723	2020
2018	49,041,811	–	49,041,811	2021
2019	324,188,542	–	324,188,542	2022
	₱431,674,085	₱34,130,009	₱397,544,076	

MCIT
The movements of the Group's MCIT as of December 31, 2019 which can be claimed against future Regular Corporate Income Tax due on taxable income, but not beyond three (3) succeeding taxable years from the year the excess MCIT arose, are as follows:

Year Incurred	Amount	Applied/Expired	Balance	Expiry Year
2016	₱6,953,356	₱6,953,356	₱–	2019
2017	7,042,389	7,042,389	–	2020
2018	6,417,118	6,417,118	–	2021
2019	11,369,686	–	11,369,686	2022
	₱31,782,549	₱20,412,863	₱11,369,686	

19. Equity

The Parent Company's capital stock consists of:

	2019		2018	
	Shares	**Amount**	Shares	Amount
Common stock - ₱1 per share				
Authorized	**3,100,000,000**	**₱3,100,000,000**	3,100,000,000	₱3,100,000,000
Issued and subscribed	**2,064,839,617**	**2,064,839,617**	2,064,839,617	2,064,839,617
Outstanding	**2,041,447,232**	**2,041,447,232**	2,030,732,360	2,030,732,360
Preferred stock - ₱0.10 par value, 10% cumulative, voting, participating, nonredeemable and nonconvertible				
Authorized, issued and outstanding - 4,000,000,000 shares	**4,000,000,000**	**400,000,000**	4,000,000,000	400,000,000

On March 18, 2005, the Parent Company launched its Initial Public Offering where a total of 745.33 million common shares were offered at an offering price of ₱6.50 per share. The Parent Company has 967 and 949 existing certificated shareholders as of December 31, 2019 and 2018, respectively. The Scripless shareholders are counted under PCD Nominee Corporation (Filipino) and PCD Nominee Corporation (Non-Filipino).

On March 1, 2018, the BOD approved the following:

a. amendment of the Parent Company's Articles of Incorporation to exclude the 300.00 million common shares from the pre-emptive rights of existing stockholders, and endorsed the said amendment for approval by the stockholders; and
b. allotment and subsequent issuance of up to 300.00 million common shares for the purpose of exchanging such shares for assets and/or raising funds to acquire assets needed for the business of the Parent Company.

On April 16, 2018, the stockholders of the Parent Company approved the amendment of the Seventh Article of the Articles of Incorporation to exempt from pre-emptive rights 300.00 million unissued common shares ("carved-out shares") which are reserved or allocated for issuance in one or more transactions or offerings, (i) for properties or assets needed for the business of the Parent Company, or (ii) for cash to acquire properties or assets needed for the business of the Parent Company. The issuance of all or any of the carved-out shares does not require the approval of stockholders.

On February 26, 2019, the BOD approved the amendment of the Second Article of the Articles of Incorporation to include the authority to enter into contracts of guarantee and/or suretyships. This amendment was later ratified by the Parent Company's stockholders during the annual stockholders meeting held on April 22, 2019.

The movement of the Parent Company's outstanding common stock follows:

	2019	2018
Number of shares at beginning of year	**2,030,732,360**	2,026,067,122
Additions	**10,714,872**	4,665,238
Number of shares at end of year	**2,041,447,232**	2,030,732,360

Dividends
The following table shows the cash dividends declared by the Parent Company's BOD on the outstanding capital stock for each of the three (3) years ended December 31, 2019:

		Amount Per Share		
Declaration Date	Record Date	Common Shares	Participating Preferred Shares	Payment Date
March 1, 2017	March 15, 2017	0.4244	0.04244	March 31, 2017
October 3, 2017	October 17, 2017	0.4244	0.04244	November 2, 2017
November 23, 2017	December 8, 2017	–	0.01000	December 20, 2017
March 1, 2018	March 15, 2018	0.4302	0.04302	March 28, 2018
October 2, 2018	October 17, 2018	0.4283	0.04283	October 31, 2018
November 20, 2018	December 6, 2018	–	0.01000	December 20, 2018
February 26, 2019	March 14, 2019	0.4551	0.04551	March 28, 2019
September 27, 2019	October14, 2019	0.4551	0.04551	October 25, 2019

Dividends on arrears for the Parent Company amounted to ₱40.00 million in 2019 (nil in 2018).

Retained earnings
The approved Business Plan includes planned capital expenditures on (i) service continuity, (ii) service accessibility, (iii) water security, and (iv) environmental sustainability described as follows:

- Service continuity projects are endeavored to maintain the level of service provided to its customers even in times of calamity;
- Service accessibility projects would enable the Parent Company to expand its service coverage;
- Water security projects include two components: (1) new water source development and, (2) existing water source rehabilitation and improvement; and
- Projects under the Environmental Sustainability Investment category are comprised of wastewater projects endeavored to achieve the Parent Company's wastewater coverage targets.

On November 26, 2019, November 20, 2018, and November 23, 2017, the Parent Company's BOD approved the appropriation of ₱3.05 billlion, ₱3.75 billion, and ₱7.60 billion, respectively, to ensure the completion of the Parent Company's large system projects included in its approved Business Plan. The implementation of these projects is consistent with the timeline of the approved Business Plan which covers until the end of the concession period.

Retained earnings include the accumulated equity in undistributed net earnings of consolidated subsidiaries and associates accounted for under the equity method amounting to ₱3,274.44 million and ₱3,267.74 million as of December 31, 2019 and 2018, respectively, which are not available for dividend declaration by the Parent Company until these are declared by the investee companies.

In accordance with Revised SRC Rule 68, Annex 68-D, the Parent Company's retained earnings available for dividend declaration as of December 31, 2019 and 2018 amounted to ₱8.84 billion and ₱7.22 billion, respectively.

Executive Stock Option Plan (Executive SOP), Expanded Executive SOP, and ESOWN
The subscribed shares are effectively treated as options exercisable within a given period which is the same time as the grantee's payment schedule.

On March 6, 2018, the Renumeration Committee of the Parent Company's BOD approved the grants of ESOWN equivalent to 16,054,873 shares at the subscription price of ₱27.31 per share. The subscription price is equivalent to the average closing price of Parent Company's common shares at the PSE for twenty (20) consecutive trading days ending March 6, 2018.

The fair values of stock options granted are estimated on the date of grant using the Binomial Tree Model and Black-Scholes Merton Formula, taking into account the terms and conditions upon which the options were granted. The expected volatility was determined based on an independent valuation.

The fair value of stock options granted under ESOWN at grant date and the assumptions used to determine the fair value of the stock options follows:

	Grant Dates		
	March 7, 2018	February 10, 2015	November 19, 2013
Number of shares granted	16,054,873	7,281,647	6,627,100
Number of unsubscribed shares	5,161,140	884,873	351,680
Fair value of each option	₱5.74	₱11.58	₱10.58
Weighted average share price	₱26.55	₱21.35	₱23.00
Exercise price	₱27.31	₱26.00	₱22.92
Expected volatility	24.92%	26.53%	24.90%
Dividend yield	2.80%	2.55%	3.47%
Risk-free interest rate	3.43%	3.79%	2.99%

To enjoy the rights provided for in the ESOWN, the grantee should be with the Parent Company at the time the holding period expires. The holding period of the ESOWN shares granted follows:

Year	Holding Period
After one year from subscription date	40%
After two years from subscription date	30%
After three years from subscription date	30%

For the 2013 and previous years' grants, the ESOWN grantees were allowed to subscribe fully or partially to whatever allocation may have been granted to them. In case of partial subscriptions, the employees are still allowed to subscribe to the remaining unsubscribed shares granted to them provided that this would be made at the start of Year 5 from grant date up to the end of Year 6. Any additional subscription made by the employee (after the initial subscription) will be subjected to another three (3)-year holding period. For the 2018 and 2015 grants, unsubscribed shares were forfeited.

Movements in the number of stock options outstanding under ESOWN are as follows:

	2019	**Weighted average exercise price**	2018	Weighted average exercise price
Balance at beginning of year	**131,600**	**₱23.49**	231,980	₱23.49
Cancellations/expirations	**(131,600)**	**–**	(100,380)	–
Balance at end of year	**–**	**₱–**	131,600	₱23.49

Total expense arising from equity-settled share-based payment transactions amounted to ₱20.16 million, ₱23.97 million and ₱12.17 million in 2019, 2018 and 2017, respectively.

The expected life of the options is based on management's estimate and is not necessarily indicative of exercise patterns that may occur. The Parent Company's expected volatility was used as an input in the valuation of the outstanding options. The expected volatility reflects the assumption that the historical volatility is indicative of future trends, which may also not necessarily reflect the actual outcome.

No other features of the options granted were incorporated into the measurement of fair value.

Other equity reserves
On May 9, 2012, the Parent Company sold portion of its investment in MW Consortium to Vicsal Development Corporation (VDC) which decreased its ownership by 10% without loss of control. Proceeds from the sale amounted to ₱15.00 million and the gain of ₱7.50 million was presented as part of "Other equity reserves" in the consolidated statements of financial position.

In 2016, MWPVI increased its ownership interest in MW Consortium from 51.00% to 57.22% and MW Consortium in Cebu Water from 51.00% to 70.58% arising from the issuance of redeemable preferred shares. This resulted to a corresponding increase in effective ownership of MWPVI in Cebu Water from 26.01% to 40.39%. The Group recognized gain on dilution of noncontrolling interest amounting to ₱46.61 million and presented this as part of "Other equity reserves" in the consolidated statements of financial position.

20. Earnings per Share

Earnings per share amounts attributable to equity holders of the Parent Company for the years ended December 31, 2019, 2018, and 2017 were computed as follows:

	2019	2018	2017
Net income attributable to common equity holders of the Parent Company	**₱5,495,509,199**	₱6,523,700,728	₱6,146,608,317
Less dividends on preferred shares*	**925,332,930**	1,094,186,642	1,035,507,438
Net income attributable to common shareholders for basic and diluted earnings per share	**₱4,570,176,269**	₱5,429,514,086	₱5,111,100,879
Weighted average number of common shares for basic earnings per share	**2,064,839,617**	2,060,184,183	2,053,666,576
Dilutive common shares arising from stock options	**–**	77,730	1,179,473
Adjusted weighted average number of common stocks for diluted earnings per share	**2,064,839,617**	2,060,261,913	2,054,846,049
Basic earnings per share	**₱2.21**	₱2.64	₱2.49
Diluted earnings per share	**₱2.21**	₱2.64	₱2.49

**Including participating preferred shares' participation in earnings.*

21. Related Party Transactions

Parties are considered to be related to the Group if it has the ability, directly or indirectly, to control the Group or exercise significant influence over the Group in making financial and operating decisions, or vice versa, or where the Group and the party are subject to common control or common significant influence. Related parties may be individuals (being members of key management personnel and/or their close family members) or other entities and include entities which are under the significant influence of related parties of the Group where those parties are individuals, and post-employment benefit plans which are for the benefit of employees of the Group or of any entity that is a related party of the Group.

In the normal course of business, the Group has transactions with related parties. The sales and investments to related parties and service agreements are based on rates agreed upon by the parties. Outstanding balances at year-end are unsecured, due for cash settlement or collection, and interest-free except for balances related to cash in banks and cash equivalents and long-term debt

whose interest rates are disclosed in Notes 5 and 14, respectively. There have been no guarantees provided for nor received on any related party receivables or payables. This assessment is undertaken each financial year by examining the financial position of the related party and the market in which the related party operates.

Significant transactions with related parties follow:

a. The Parent Company entered into an Administrative and Support Services Agreement (ASSA) with Ayala in 1997, being its sponsor as required during the privatization process. The ASSA was initially effective for ten (10) years and automatically renewable every five (5) years. Under the agreement, Ayala shall provide technical and other knowledge, experience and skills as reasonably necessary for the development, administration and operation of the concession, for which the Parent Company shall pay an annual base fee of US$1.00 million and adjusted for the effect of CPI. As a result, certain key management positions are occupied by employees of Ayala.

   On March 1, 2017, the BOD confirmed the automatic renewal of the ASSA between the Parent Company and Ayala for another five (5) years until July 30, 2022 and approved the amendment reducing the base fee to ₱1.00 per year beginning August 1, 2017.

   Total management and professional fees charged to operations arising from these agreements amounted to ₱156.54 million, ₱209.22 million, and ₱276.20 million in 2019, 2018 and 2017, respectively. Total outstanding payables amounted to nil as of December 31, 2019 and 2018 (see Note 13).

b. The following tables provide the total amount of all other transactions that have been entered into with the Parent Company's shareholders and affiliates for the relevant financial year:

	Cash in Banks and Cash Equivalents (Note 5)		**Receivables* (Note 6)**	
	2019	2018	**2019**	2018
Shareholder:				
Ayala	**₱–**	₱–	**₱13,264**	₱12,776
Affiliates:				
ALI and subsidiaries	**–**	–	**632,412,687**	170,860,333
AC Industrial Technology Holdings, Inc. (AITHI) and subsidiaries	**–**	–	**260,154**	250,987
Globe and subsidiaries	**–**	–	**–**	208,865
BPI and subsidiaries	**3,375,711,308**	3,595,126,404	**3,200,718**	113,859
	3,375,711,308	3,595,126,404	**635,873,559**	171,434,044
	₱3,375,711,308	₱3,595,126,404	**₱635,886,823**	₱171,446,820

**Includes trade and interest receivables*

Cash in banks and cash equivalents pertain to deposits and investments with original maturities of three (3) months or less from the date of original acquisition.

Trade receivables are primarily composed of receivables for water and sewerage services rendered by the Group. These are non-interest bearing and are collectible within thirty (30) days from bill generation. Allowance for ECL provided for receivables from related parties amounted to ₱28.44 million and nil as of December 31, 2019 and 2018, respectively.

	Payables* (Note 13)		**Long-term Debt (Note 14)**	
	2019	2018	**2019**	2018
Affiliates:				
ALI and subsidiaries	**₱188,720,758**	₱31,024,797	**₱–**	₱–
Globe and subsidiaries	**12,133,084**	14,997,136	**–**	
BPI and subsidiaries	**11,190,595**	687,144	**1,292,417,274**	595,629,415
AITHI and subsidiaries	**1,201,847**	–	**–**	–
HCX Technology Partners, Inc.	**901,640**	–	**–**	–
	₱214,147,924	₱46,709,077	**₱1,292,417,274**	₱595,629,415

**Includes trade, retention and interest payable*

Trade payables pertain to retentions deducted from contractors' billings and are normally paid within a year after project acceptance.

Long-term debt pertains to loans made by Boracay Water and Laguna Water with BPI (see Note 14).

	Revenues		Purchases	
	2019	2018	**2019**	2018
Shareholder:				
Ayala	**₱7,753,611**	₱6,109,967	**₱156,537,256**	₱209,220,988
Affiliates:				
ALI and subsidiaries	**1,137,740,158**	656,875,805	**421,158,449**	274,348,720
BPI and subsidiaries	**94,023,336**	99,654,361	**45,136,463**	3,272,564
Globe and subsidiaries	**2,430,837**	3,094,544	**57,510,596**	37,042,399
Integrated Microelectronics, Inc. (IMI) and subsidiaries	**34,197,393**	27,127,460	**–**	–
AITHI and subsidiaries	**5,042,869**	5,655,375	**104,350,965**	15,184,639
AC Energy Holdings, Inc. (AC Energy)	**–**	–	**448,106,541**	377,271,684
HCX Technology Partners, Inc.	**–**	–	**5,934,660**	5,679,690
	1,273,434,593	792,407,545	**1,082,197,674**	712,799,696
	₱1,281,188,204	₱798,517,512	**₱1,238,734,930**	₱922,020,684

Revenue is mainly attributable to water and used water services and facilities, and supervision fees rendered by the Group to its shareholder and affiliates.

Purchases from related parties arise from the following transactions:

- Ayala for management fees;
- ALI and subsidiaries for rental of office space;
- BPI for banking transactions and financial services such as insurance;
- Globe for telecommunication services;
- AC Energy for purchase of power;
- AITHI and its subsidiaries for acquisition of transportation equipment; and
- HCX Technology Partners, Inc. for payroll management services.

c. On April 9, 2002, Laguna Water entered into a concession agreement (as amended on March 31, 2004, July 22, 2009, and June 30, 2015) with PGL, one of its shareholders. Concession fees paid to PGL amounted to ₱36.46 million and ₱32.27 million in 2019 and 2018, respectively (see Notes 1 and 27).

d. On December 17, 2009, Boracay Water entered into a concession agreement with TIEZA, one of its shareholders. Concession fees paid to TIEZA amounted to ₱40.68 million and ₱28.40 million in 2019 and 2018, respectively (see Notes 1 and 27).

e. On January 15, 2016, MWPVI entered into a MOA with ALI and its subsidiaries and affiliates (the ALI Group) whereby MWPVI shall exclusively provide water and used water services and facilities to all ALI Group property development projects in the Philippines. Revenue earned by MWPVI from the agreement, included under "Supervision fees", amounted to ₱802.77 million and ₱320.25 million in 2019 and 2018, respectively (see Note 17).

f. On April 16, 2016, MWPVI entered into a MOA with Laguna Technopark Inc. (LTI), whereby through its division, Estate Water, MWPVI shall exclusively provide water and used water services to LTI's Cavite Technopark located in Barangay Sabang, Naic, Cavite, and in pursuit of this objective, to construct, develop, finance, and own the water facilities and used water facilities under the terms and conditions set out in the MOA. For and in consideration of the construction and development of the water facilities and used water facilities and the rendition of the services by MWPVI, LTI shall pay a capacity charge. Capacity charge, included under "Supervision fees," amounted to₱4.99 million and ₱5.12 million in 2019 and 2018, respectively (see Note 17).

g. On December 20, 2017, Boracay Water signed a Fourth Omnibus Loan and Security Agreement in the amount of ₱2.40 billion with the BPI. The loan will be used to finance the general corporate and capital expenditures requirements of Boracay Water. The carrying value of loan as of December 31, 2019 and 2018 amounted to ₱595.98 million and ₱595.63 million, respectively (see Note 14).

h. On June 28, 2019, Laguna Water signed a ten (10)-year term loan facility amounting to ₱2.50 billion with BPI. The loan will be used to partially finance Laguna Water's capital expenditure program. The first drawdown was made in July 2019 amounting to ₱200.00 million bearing an effective interest rate of 6.06%. The second drawdown was made in December 2019 amounting to ₱500.00 million bearing effective interest rates of 6.05%. The carrying value of the loan amounted to ₱694.88 million and nil as of December 31, 2019 and 2018, respectively (see Note 14).

i. In September 2017, the Parent Company entered into an Open Access Contract with AC Energy which will cover a two (2)-year supply of electricity to five (5) of the Parent Company's facilities currently enrolled under Open Access. On June 26, 2019, Cebu Water entered into a similar contract with AC Energy which will cover a two (2)-year supply of electricity. As of December 31, 2019 and 2018, the Group has guaranty deposits with AC Energy amounting to ₱15.64 million and ₱9.23 million, respectively (see Note 12).

j. One of the trustee banks which manages the Group's retirement fund is BPI, an affiliate. The Group's plan assets under BPI amounted to ₱510.11 million and ₱483.42 million as of December 31, 2019 and 2018, respectively (see Note 15).

k. Compensation of key management personnel of the Group by benefit type, included as part of "Salaries, wages and employee benefits," are as follows:

	2019	2018
Short-term employee benefits	**₱523,863,831**	₱576,676,245
Post-employment benefits	**24,818,496**	19,899,576
Share-based payments	**13,743,064**	16,960,455
	₱562,425,391	₱613,536,276

22. Significant Contracts with the West Zone Concessionaire

In relation to the Concession Agreement, the Parent Company entered into the following contracts with Maynilad:

a. Interconnection Agreement wherein the two Concessionaires formed an unincorporated joint venture that will manage, operate, and maintain interconnection facilities. The terms of the agreement provide, among others, the cost and the volume of water to be transferred between zones.

b. Joint Venture Arrangement that will operate, maintain, renew, and as appropriate, decommission common purpose facilities, and perform other functions pursuant to and in accordance with the provisions of the Agreement and perform such other functions relating to the concession (and the concession of the West Zone Concessionaire) as the Concessionaires may choose to delegate to the joint venture, subject to the approval of MWSS.

c. In March 2010, MWSS entered into a loan agreement with The Export-Import Bank of China to finance the Angat Water Utilization and Aqueduct Improvement Project Phase II (the Project). Total loan facility is US$116.60 million with maturity of twenty (20) years, including five (5) years of grace period. Interest rate is 3% per annum. MWSS then entered into a MOA with the Parent Company and Maynilad for the Parent Company and Maynilad to shoulder equally the repayment of the loan, with such repayment to be part of the concession fees (see Note 10).

d. On May 12, 2015, MWSS entered into a MOA with the Parent Company and Maynilad for the Angat Water Transmission Improvement Project (Angat Transmission Project). The Angat Transmission Project aims to improve the reliability and security of the raw water coming from the Angat Dam through the rehabilitation of the transmission system from Ipo to La Mesa and the application of water safety, risk and asset management plans. Subsequently, on May 27, 2016, MWSS entered into a loan agreement with Asian Development Bank to finance the Angat Transmission Project. The loan amounts to US$123.30 million with a maturity of twenty-five (25) years including a seven (7)-year grace period. As stipulated in the MOA, the Parent Company and Maynilad shall shoulder equally the repayment of the loan and all reasonable expenditures related to the Project with such payments to form part of the concession fees.

e. In 2016, MWSS entered into a MOA with the Parent Company and Maynilad which was subsequently amended in 2018 for the New Centennial Water Source - Kaliwa Dam Project (NCWS-KDP). The NCWS-KDP aims to develop a new water source in order to meet the increasing water demand by constructing a dam for MWSS service area's domestic water supply.

   To partially finance the NCWS-KDP, MWSS entered into a Preferential Buyer's Credit Loan Agreement with The Export-Import Bank of China in 2018 amounting to US$211.21 million with a maturity of twenty (20) years including a seven (7)-year grace period. As stipulated in the MOA, the Parent Company and Maynilad shall shoulder equally the repayment of the loan and all reasonable expenditures related to the Project with such payments to form part of the concession fees.

23. Assets Held in Trust

MWSS

The Parent Company was granted the right to operate, maintain in good working order, repair, decommission and refurbish the movable property required to provide the water and sewerage services under the Concession Agreement. The legal title to all movable property in existence at the Commencement Date, however, shall be retained by MWSS and upon expiration of the useful life of any such movable property as may be determined by the Parent Company, such movable property shall be returned to MWSS in its then-current condition at no charge to MWSS or the Parent Company.

The Concession Agreement also provides for the Concessionaires to have equal access to MWSS facilities involved in the provision of water supply and sewerage services in both the East and West Zones including, but not limited to, the MWSS management information system, billing system, telemetry system, central control room and central records.

The net book value of the facilities transferred to the Parent Company on Commencement Date based on MWSS' closing audit report amounted to ₱4.60 billion, with a sound value of ₱10.40 billion.

In 2019, the Parent Company engaged the services of Royal Asia Appraisal Corporation to conduct a re-appraisal of the assets managed by the Parent Company as of December 31, 2019. Total appraised value as of December 31, 2019 amounted to ₱28.12 billion.

MWSS' corporate headquarters is made available to the Concessionaires starting August 1, 1997, subject to periodic renewal by mutual agreement of the parties. On August 28, 2012, additional office space was leased by the Parent Company. The lease was last renewed on July 8, 2019. In 2019, the Parent Company made payments amounting to ₱36.04 million recorded as deduction to lease liabilities. In 2018 and 2017, total rent payments amounted to ₱32.25 million and ₱27.75 million, respectively, which are included under "Occupancy costs" in the consolidated statements of comprehensive income.

In March 2015, the Parent Company and MWSS entered into an agreement for the lease of a portion of the San Juan Reservoir and Aqueduct Complex being utilized by the Parent Company as stockyard for its pipes and other materials. The lease agreement shall continue to be in effect until the termination of the Concession Agreement. Rent payments made from 2017 to 2019 amounted to ₱16.20 million each year which is recorded in 2019 as deduction to lease liabilities, and included under "Occupancy costs" in the 2018 and 2017 consolidated statement of comprehensive income.

PGL

Laguna Water was granted the right to manage, occupy, operate, repair, maintain, decommission and refurbish the property required to provide water services under its concession agreement with PGL. The legal title of all property in existence at the commencement date shall be retained by PGL. Upon expiration of the useful life of any such property as may be determined by Laguna Water, such property shall be returned to PGL in its then condition at no charge to PGL or Laguna Water.

In 2014, Laguna Water engaged the services of Cuervo Appraisers to conduct a re-appraisal of PGL assets on record as of December 31, 2013. Total replacement cost as of December 31, 2013 amounted to ₱2,138.38 million with a sound value of ₱1,596.19 million.

TIEZA

Boracay Water was granted the right to operate, maintain in good working order, repair, decommission and refurbish all fixed and movable property (except retained assets) required to provide the water and sewerage services under its concession agreement with TIEZA. The legal title to all these assets in existence at the commencement date, however, shall be retained by TIEZA and upon expiration of the useful life of such assets as may be determined by Boracay Water, such assets shall be returned to TIEZA in its then-current condition at no charge to TIEZA or Boracay Water.

The net book value of the facilities transferred to Boracay Water on commencement date based on TIEZA's closing audit report amounted to ₱618.24 million.

In 2015, Boracay Water engaged the services of Cuervo Appraisers, Inc. to conduct an appraisal of its assets as of August 18 to 20, 2015. Total replacement cost as of December 31, 2015 amounted to ₱1.11 billion with a sound value of ₱793.41 million.

CDC

Clark Water was granted the right to finance, design and construct new facilities and to manage, exclusively possess, occupy, operate, repair, maintain, decommission, and refurbish all facilities, except private deepwells, to provide and manage the water and wastewater-related services in the CFZ.

OWD

On October 12, 2017, Obando Water was granted the right to manage, operate, maintain, repair, refurbish and improve, expand and as appropriate, decommission all fixed and movable assets, including movable property but excluding retained assets, required to provide water delivery and sanitation services in the Municipality of Obando. Legal title to all facilities (including any fixed assets resulting from the exercise of rights and powers), other than new assets contributed by Obando Water, shall remain with OWD.

CWD

On October 23, 2017, Calasiao Water was granted the right to develop, manage, operate, maintain, repair, refurbish and improve, expand, and as appropriate, decommission all fixed and movable assets, including movable property but excluding retained assets, required to provide water delivery and sanitation services in the Municipality of Calasiao. Legal title to all facilities (including any fixed assets resulting from the exercise of rights and powers), other than new assets contributed by Calasiao Water, shall remain with CWD.

PAGWAD

On January 21, 2019, Laguna Water was granted the right to operate, finance, maintain, repair, improve, expand, renew, and as appropriate, decommission all fixed and movable assets, including movable property but excluding retained assets, required and exclusively used to provide water delivery and sanitation services in the service area of PAGWAD.

TnWD
On February 4, 2019, South Luzon Water was granted the right to operate, maintain, repair, improve, expand, renew, and as appropriate, decommission all fixed and movable assets, including movable property but excluding retained assets, required to provide water supply and sanitation services in the service area of TnWD.

BuWD
On June 14, 2019, Bulakan Water was granted the right to operate, maintain, repair, improve, expand, renew, and as appropriate, decommission all fixed and movable assets, including movable property but excluding retained assets, required to provide water delivery and sanitation services in the service area of BuWD.

LWD
On July 3, 2019, Aqua Centro was granted the right to operate, maintain, repair, improve, expand, renew, and as appropriate, decommission all fixed and movable assets, including movable property but excluding retained assets, required to provide water supply in the service area of LWD.

CCWD
On July 3, 2019, Calbayog Water was granted the right to operate, maintain, repair, improve, expand, renew, and as appropriate, decommission all fixed and movable assets, including movable property but excluding retained assets, required to provide water supply and sanitation services in the service area of CCWD.

24. Segment Information

Business segment information is reported on the basis that is used internally for evaluating segment performance and deciding how to allocate resources among operating segments. Accordingly, the segment information is reported based on geographic location.

The Group's BOD and Management Committee monitors the operating results of its business segments separately for the purpose of making decisions about resource allocation and performance assessment. Segment performance is evaluated based on profit or loss and is measured consistently with profit or loss in the consolidated financial statements.

Transfer prices between operating segments are on an arms' length basis in a manner similar to transactions with third parties.

The amount of segment assets and liabilities are based on measurement principles that are similar with those used in measuring assets and liabilities in the consolidated statements of financial position which is in accordance with PFRS.

The segments where the Group operates follow:

- Manila Concession and Head Office – represents the operations of the Manila Concession (East Zone) of the Parent Company in accordance with its Concession Agreement.
- Domestic Subsidiaries – represents the financial results of the Philippine businesses such as MWTS, Calasiao Water, MWPVI (including Laguna Water, Clark Water, Boracay Water, North Luzon Water, Filipinas Water, Obando Water, Bulakan Water, Ilagan Water, South Luzon Water, MW Consortium, Cebu Water, Davao Water, Tagum Water, BMDC, Aqua Centro, MWTV, EcoWater, Leyte Water, Zamboanga Water, and Calbayog Water).
- Foreign Subsidiaries – consists of businesses outside the Philippines under MWAP (MWSAH, Asia Water, TDWH, KDWH, MWTH, MWTC, MSEA, and PTMWI).

Details of the Group's operating segments as of and for the years ended December 31, 2019, 2018, and 2017 are as follows:

	2019			
	Manila Concession and Head Office	Domestic Subsidiaries	Foreign Subsidiaries	Consolidated
		(In Thousands)		
Revenue				
Sales to external customers	₱16,862,821	₱5,081,153	₱5,796	₱21,949,770
Operating expenses (excluding depreciation and amortization)	6,530,900	3,124,262	174,633	9,829,795
Other income (expenses) - net				
Equity share in net income of associates	–	–	653,502	653,502
Revenue from rehabilitation works	9,518,912	1,333,999	–	10,852,911
Cost of rehabilitation works	(9,518,912)	(1,333,999)	–	(10,852,911)
Impairment losses	–	–	(74,325)	(74,325)
Other income (loss)	33,065	(550,558)	496,251	(21,242)
EBITDA	10,364,986	1,406,333	906,591	12,677,910
Depreciation and amortization	2,405,355	587,103	1,305	2,993,763
Income before interest income (expense)	7,959,631	819,230	905,286	9,684,147
Interest income	215,026	186,107	3,523	404,656
Interest expense	(1,234,218)	(611,756)	(228,735)	(2,074,709)
Income before income tax	6,940,439	393,581	680,074	8,014,094
Provision for income tax	2,040,639	318,061	15,968	2,374,668
Net income	4,899,800	75,520	664,106	5,639,426

	2019			
	Manila Concession and Head Office	**Domestic Subsidiaries**	**Foreign Subsidiaries**	**Consolidated**
	(In Thousands)			
Other comprehensive income (loss)				
Cumulative translation adjustment	**₱–**	**₱–**	**(₱1,054,114)**	**(₱1,054,114)**
Actuarial loss on pension liabilities - net	**(65,519)**	**(13,679)**	**–**	**(79,198)**
Equity share in other comprehensive loss of associates	**–**	**–**	**(1,346)**	**(1,346)**
Income tax effect	**–**	**933**	**–**	**933**
Total comprehensive income	**₱4,834,281**	**₱62,774**	**(₱391,354)**	**₱4,505,701**
Total net income attributable to:				
Equity holders of the Parent Company	**₱4,899,800**	**(₱53,389)**	**₱649,099**	**₱5,495,510**
Noncontrolling interests	**–**	**128,909**	**15,007**	**143,916**
	₱4,899,800	**₱75,520**	**₱664,106**	**₱5,639,426**
Total comprehensive income (loss) attributable to:				
Equity holders of the Parent Company	**₱4,834,281**	**(₱65,722)**	**(₱407,708)**	**₱4,360,851**
Noncontrolling interests	**–**	**128,496**	**16,353**	**144,849**
	₱4,834,281	**₱62,774**	**(₱391,355)**	**₱4,505,700**
Other information				
Segment assets, exclusive of investments in associates and deferred tax assets	**₱93,128,758**	**₱24,148,456**	**₱615,812**	**₱117,893,026**
Investments in associates	**–**	**–**	**15,519,808**	**15,519,808**
Deferred tax assets	**975,573**	**213,234**	**–**	**1,188,807**
	₱94,104,331	**₱24,361,690**	**₱16,135,620**	**₱134,601,641**
Segment liabilities, exclusive of deferred tax liabilities	**₱52,176,830**	**₱17,304,488**	**₱8,991,967**	**₱78,473,285**
Deferred tax liabilities	**–**	**137,147**	**–**	**137,147**
	₱52,176,830	**₱17,441,635**	**₱8,991,967**	**₱78,610,432**
Segment additions to property, plant and equipment and SCA	**₱10,982,853**	**₱4,165,339**	**₱–**	**₱15,148,192**
Depreciation and amortization	**₱2,405,355**	**₱587,103**	**₱1,305**	**₱2,993,763**
Noncash expenses (income) other than depreciation and amortization*	**₱27,245**	**₱77,585**	**₱74,325**	**₱179,155**

	2018			
	Manila Concession and Head Office	Domestic Subsidiaries	Foreign Subsidiaries	Consolidated
	(In Thousands)			
Revenue				
Sales to external customers	₱16,189,503	₱3,617,782	₱29,007	₱19,836,292
Operating expenses (excluding depreciation and amortization)	5,202,420	2,594,621	279,047	8,076,088
Other income (expenses) - net				
Equity share in net income of associates	–	–	699,142	699,142
Revenue from rehabilitation works	8,198,599	1,463,378	–	9,661,977
Cost of rehabilitation works	(8,198,599)	(1,463,378)	–	(9,661,977)
Impairment losses	–	(71,430)	(65,305)	(136,735)
Other income (loss)	222,641	100,440	(6,706)	316,375
EBITDA	11,209,724	1,052,171	377,091	12,638,986
Depreciation and amortization	2,176,661	478,541	468	2,655,670
Income before interest income (expense)	9,033,063	573,630	376,623	9,983,316
Interest income	228,651	175,172	8,060	411,883
Interest expense	(1,257,030)	(392,298)	(134,481)	(1,783,809)
Income before income tax	8,004,684	356,504	250,202	8,611,390
Provision for income tax	1,819,881	150,148	6,328	1,976,357
Net income	6,184,803	206,356	243,874	6,635,033
Other comprehensive income				
Cumulative translation adjustment	–	–	524,680	524,680
Actuarial gain (loss) on pension liabilities - net	(74,978)	19,933	–	(55,045)
Income tax effect	–	(4,160)	–	(4,160)
Total comprehensive income	₱6,109,825	₱222,129	₱768,554	₱7,100,508
Total net income attributable to:				
Equity holders of the Parent Company	₱6,184,803	₱95,391	₱243,507	₱6,523,701
Noncontrolling interests	–	110,965	367	111,332
	₱6,184,803	₱206,356	₱243,874	₱6,635,033
Total comprehensive income attributable to:				
Equity holders of the Parent Company	₱6,109,825	₱109,634	₱768,187	₱6,987,646
Noncontrolling interests	–	112,495	367	112,862
	₱6,109,825	₱222,129	₱768,554	₱7,100,508

	2018			
	Manila Concession and Head Office	Domestic Subsidiaries	Foreign Subsidiaries	Consolidated
		(In Thousands)		
Other information				
Segment assets, exclusive of investments in associates and deferred tax assets	₱93,797,598	₱10,560,913	₱816,243	₱105,174,754
Investments in associates	–	–	15,994,949	15,994,949
Deferred tax assets	1,125,584	238,020	–	1,363,604
	₱94,923,182	₱10,798,933	₱16,811,192	₱122,533,307
Segment liabilities, exclusive of deferred tax liabilities	₱47,080,563	₱12,980,508	₱8,748,048	₱68,809,119
Deferred tax liabilities	–	103,105	–	103,105
	₱47,080,563	₱13,083,613	₱8,748,048	₱68,912,224
Segment additions to property, plant and equipment and SCA	₱9,058,054	₱2,823,601	₱1,961	₱11,883,616
Depreciation and amortization	₱2,176,661	₱478,541	₱468	₱2,655,670
Noncash expenses (income) other than depreciation and amortization*	₱43,524	₱203,204	₱65,305	₱312,033

	2017			
	Manila Concession and Head Office	Domestic Subsidiaries	Foreign Subsidiaries	Consolidated
		(In Thousands)		
Revenue				
Sales to external customers	₱15,208,495	₱3,269,962	₱37,315	₱18,515,772
Operating expenses (excluding depreciation and amortization)	4,633,994	2,562,297	164,089	7,360,380
Other income (expenses) – net				
Equity share in net income of associates	–	–	457,208	457,208
Revenue from rehabilitation works	10,154,137	1,518,000	–	11,672,137
Cost of rehabilitation works	(10,154,137)	(1,518,000)	–	(11,672,137)
Other income (loss)	29,417	54,067	289	83,773
EBITDA	10,603,918	761,732	330,723	11,696,373
Depreciation and amortization	2,247,207	309,133	659	2,556,999
Income before interest income (expense)	8,356,711	452,599	330,064	9,139,374
Interest income	147,663	195,883	2,192	345,738
Interest expense	(1,147,544)	(255,692)	–	(1,403,236)
Income before income tax	7,356,830	392,790	332,256	8,081,876
Provision for income tax	1,665,513	276,414	2	1,941,929
Net income	5,691,317	116,376	332,254	6,139,947
Other comprehensive income				
Cumulative translation adjustment	–	–	108,488	108,488
Actuarial gain (loss) on pension liabilities - net	(58,468)	1,337	–	(57,131)
Income tax effect	907	(91)	–	816
Total comprehensive income	₱5,633,756	₱117,622	₱440,742	₱6,192,120
Total net income attributable to:				
Equity holders of the Parent Company	₱5,691,317	₱125,658	₱329,633	₱6,146,608
Noncontrolling interests	–	(9,283)	2,622	(6,661)
	₱5,691,317	₱116,375	₱332,255	₱6,139,947
Total comprehensive income attributable to:				
Equity holders of the Parent Company	₱5,633,756	₱125,658	₱438,121	₱6,197,535
Noncontrolling interests	–	(8,037)	2,622	(5,415)
	₱5,633,756	₱117,621	₱440,743	₱6,192,120
Other information				
Segment assets, exclusive of investments in associates and deferred tax assets	₱78,106,002	₱16,853,846	₱435,819	₱95,395,667
Investments in associates	–	–	6,796,037	6,796,037
Deferred tax assets	1,095,372	107,360	–	1,202,732
	₱79,201,374	₱16,961,206	₱7,231,856	₱103,394,436
Segment liabilities, exclusive of deferred tax liabilities	₱43,970,596	₱10,571,561	₱180,039	₱54,722,196
Deferred tax liabilities	–	111,543	–	111,543
	₱43,970,596	₱10,683,104	₱180,039	₱54,833,739
Segment additions to property, plant and equipment and SCA	₱10,400,000	₱1,590,781	₱698	₱11,991,479
Depreciation and amortization	₱2,247,207	₱309,133	₱659	₱2,556,999
Noncash expenses (income) other than depreciation and amortization*	(₱16,557)	₱605,449	₱–	₱588,892

The Group does not have a single customer contributing more than 10% of its total revenue.

Disaggregated revenue information
The following are the disaggregation of the Group's revenue from contracts with customers:

	December 31, 2019			
	Manila Concession and Head Office	**Domestic Subsidiaries**	**Foreign Subsidiaries**	**Total**
		(In Thousands)		
Revenue from contracts with customers:				
Water	**₱13,552,989**	**₱2,975,888**	**₱–**	**₱16,528,877**
Sewer	**257,247**	**314,853**	**–**	**572,100**
Environmental charges	**2,834,858**	**151,479**	**–**	**2,986,337**
Other operating income	**150,493**	**1,699,195**	**12,768**	**1,862,456**
	₱16,795,587	**₱5,141,415**	**₱12,768**	**₱21,949,770**
Timing of revenue recognition:				
Revenue recognized over time	**₱16,772,613**	**₱4,871,953**	**₱–**	**21,644,566**
Revenue recognized at a point in time	**22,974**	**269,462**	**12,768**	**305,204**
	₱16,795,587	**₱5,141,415**	**₱12,768**	**₱21,949,770**

	December 31, 2018			
	Manila Concession and Head Office	Domestic Subsidiaries	Foreign Subsidiaries	Total
		(In Thousands)		
Revenue from contracts with customers:				
Water	₱12,966,631	₱2,264,888	₱–	₱15,231,519
Sewer	246,598	273,803	–	520,401
Environmental charges	2,691,308	28,343	–	2,719,651
Other operating income	449,396	886,318	29,007	1,364,721
	₱16,353,933	₱3,453,352	₱29,007	₱19,836,292
Timing of revenue recognition:				
Revenue recognized over time	₱16,106,433	₱3,089,330	₱–	₱19,195,763
Revenue recognized at a point in time	247,500	364,022	₱29,007	640,529
	₱16,353,933	₱3,453,352	₱29,007	₱19,836,292

25. Fair Value Measurement

The carrying amounts approximate fair values for the Group's financial assets and liabilities due to its short-term maturities except for the following financial assets and financial liabilities as of December 31, 2019 and 2018:

	2019		2018	
	Carrying Value	**Fair Value Significant Unobservable Inputs (Level 3)**	Carrying Value	Fair Value Significant Unobservable Inputs (Level 3)
		(In Thousands)		
Financial assets at amortized cost				
Concession financial receivables	**₱1,054,538**	**₱1,645,037**	₱1,047,042	₱1,422,268
Other financial liabilities				
Long-term debt	**₱56,355,808**	**₱56,916,162**	₱43,050,928	₱41,811,196
Service concession obligations	**9,153,822**	**10,352,666**	7,928,527	8,645,393
Customers' guaranty deposits and other deposits	**382,330**	**306,264**	334,644	223,991
	₱65,891,960	**₱67,575,092**	₱51,314,099	₱50,680,580

The methods and assumptions used by the Group in estimating the fair value of the long-term financial assets at amortized cost and other financial liabilities such as long-term debt, service concession obligations, and customers' guaranty deposits and other deposits are as follows:

a. The fair values are estimated using the discounted cash flow methodology using the Group's current incremental borrowing rates for similar borrowings with maturities consistent with those remaining for the liability being valued.

b. The discount rates used for PHP-denominated loans were 3.02% to 7.42% in 2019 and 5.22% to 7.53% in 2018 while the discount rates used for foreign currency-denominated loans ranged from 3.17% to 6.89% in 2019 and 5.31% to 7.42% in 2018.

For the Parent Company, the recoverable amounts of its nonfinancial assets, particularly its property and equipment and service concession assets, have been determined through the assistance of external appraisers. The fair value, which was considered in the calculation of the recoverable amounts, was established as the current highest and best use of the property. This was further defined as the estimated amount for which a property should exchange on the date of valuation between a willing buyer and a willing seller in an arms' length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion.

Fair Value Hierarchy
There were no financial assets measured at fair value as of December 31, 2019 and 2018. During the periods ended December 31, 2019, 2018, and 2017, there were no transfers between Level 1 and Level 2 fair value measurements and no transfers into and out of Level 3 fair value measurement.

26. Financial Risk Management Objectives and Policies

The Group's principal financial instruments comprise of cash and cash equivalents, short-term investments, concession financial receivables, short-term debt, long-term debt, and service concession obligations. The main purpose of the Group's financial instruments is to fund its operations and capital expenditures. The main risks arising from the use of financial instruments are interest rate risk, foreign exchange risk, credit risk and liquidity risk. The Group has other various financial assets such as trade receivables and payables which arise directly from the conduct of its operations.

The Parent Company's BOD reviews and approves the policies for managing each of these risks. The Group monitors risks arising from all financial instruments and regularly report financial management activities and the results of these activities to the Parent Company's BOD.

The Group's risk management policies are summarized below:

Interest rate risk
Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Group's exposure to interest rate risk relates primarily to its financial instruments with floating and/or fixed rates. Fixed rate financial instruments are subject to fair value interest rate risk while floating rate financial instruments are subject to cash flow interest rate risk.

The Group's policy is to manage the interest payments using a mix of fixed and variable rate debts to minimize the Group's exposure to changes in interest rates primarily from its long-term debt. As of December 31, 2019 and 2018, the Group's mix of fixed interest and floating interest rate of long-term debt are 63.93% to 36.07% and 85.28% to 14.72%, respectively.

As of December 31, 2019, the fixed interest rates of the Group's foreign currency denominated long-term debt are from 1.33% to 1.51% and are from 4.42% to 9.00% for Peso denominated long-term debt. As of December 31, 2018, the fixed interest rates of the Group's foreign currency denominated long-term debt are from 1.39% to 1.48% and are from 4.42% to 9.28% for Peso denominated long-term debt. Floating interest rates are based on 6-month LIBOR, EURIBOR or BIBOR plus margin as of December 31, 2019 and 2018.

The following tables summarize the maturity profile of the Group's long-term debt based on contractual undiscounted principal payments:

	2019											
	Due in 2020	Due in 2021	Due in 2022	Due in 2023	Due in 2024	Due after 2024	Total in Original Currency (In PHP)	Total in Original Currency (In JPY)	Total in Original Currency (In USD)	Total in Original Currency (In EUR)	Total in Original Currency (In THB)	Total (In PHP)
Liabilities:												
Long-Term Debt												
Fixed Rate (exposed to fair value risk)												
Fixed Rate Corporate Notes	₱25,000,000	₱4,775,000,000	₱–	₱–	₱–	₱–	₱4,800,000,000	¥–	$–	€–	THB–	₱4,800,000,000
₱5.00 billion Metrobank Loan	₱4,850,000,000	₱–	₱–	₱–	₱–	₱–	₱4,850,000,000	¥–	$–	€–	THB–	₱4,850,000,000
₱5.00 billion PNB Loan	₱500,000,000	₱500,000,000	₱500,000,000	₱500,000,000	₱500,000,000	₱1,875,000,000	₱4,375,000,000	¥–	$–	€–	THB–	₱4,375,000,000
BDO Revolver Loan	₱–	₱–	₱–	₱–	₱1,800,000,000	₱–	₱1,800,000,000	¥–	$–	€–	THB–	₱1,800,000,000
JP¥40.00 billion Loan	¥6,897,902,098	¥6,897,902,098	¥6,897,902,098	¥–	¥–	¥–	₱–	¥20,693,706,294	$–	€–	THB–	₱9,579,116,643
₱1.15 billion Clark Water RCBC Loan	₱95,833,333	₱95,833,333	₱95,833,333	₱95,833,333	₱95,833,333	₱551,041,667	₱1,030,208,332	¥–	$–	€–	THB–	₱1,030,208,332
₱0.80 billion Cebu Water DBP Loan	₱44,209,804	₱44,209,804	₱44,209,804	₱44,209,804	₱44,209,804	₱397,888,235	₱618,937,255	¥–	$–	€–	THB–	₱618,937,255
₱0.50 billion Laguna Water Loan	₱66,666,666	₱–	₱–	₱–	₱–	₱–	₱66,666,666	¥–	$–	€–	THB–	₱66,666,666
₱0.50 billion Laguna Water DBP Loan	₱29,411,765	₱29,411,765	₱29,411,765	₱29,411,765	₱29,411,765	₱257,352,939	₱404,411,764	¥–	$–	€–	THB–	₱404,411,764
₱0.83 billion Laguna Water DBP Loan	₱50,484,848	₱50,484,848	₱50,484,848	₱50,484,848	₱50,484,848	₱441,742,428	₱694,166,668	¥–	$–	€–	THB–	₱694,166,668
₱2.50 Laguna Water SBC Loan	₱192,307,692	₱192,307,692	₱192,307,692	₱192,307,692	₱192,307,692	₱1,153,846,156	₱2,115,384,616	¥–	$–	€–	THB–	₱2,115,384,616
₱2.50 billion Laguna Water BPI Loan	₱–	₱–	₱31,034,483	₱96,551,724	₱96,551,724	₱475,862,069	₱700,000,000	¥–	$–	€–	THB–	₱700,000,000
₱0.38 billion Boracay Water DBP-SBC Loan	₱22,058,824	₱22,058,824	₱22,058,824	₱22,058,824	₱22,058,824	₱148,897,056	₱259,191,176	¥–	$–	€–	THB–	₱259,191,176
₱0.50 billion Boracay Water DBP-SBC Loan	₱31,473,214	₱31,473,214	₱31,473,214	₱31,473,214	₱31,473,214	₱212,444,198	₱369,810,268	¥–	$–	€–	THB–	₱369,810,268
₱0.65 billion Boracay Water DBP-SBC Loan	₱54,166,667	₱54,166,667	₱54,166,667	₱54,166,667	₱54,166,667	₱365,624,998	₱636,458,333	¥–	$–	€–	THB–	₱636,458,333
₱2.40 billion Boracay Water BPI Loan	₱–	₱–	₱–	₱30,000,000	₱30,000,000	₱540,000,000	₱600,000,000	¥–	$–	€–	THB–	₱600,000,000
₱85.00 million Zamboanga Water DBP Loan	₱21,250,000	₱21,250,000	₱21,250,000	₱15,937,500	₱–	₱–	₱79,687,500	¥–	$–	€–	THB–	79,687,500
₱0.45 billion Tagum Water PNB Loan	₱8,416,667	₱33,666,667	₱33,666,667	₱33,666,667	₱33,666,667	₱260,916,665	₱404,000,000	¥–	$–	€–	THB–	₱404,000,000
₱4.00 billion MWPVI Loan	₱–	₱–	₱143,100,000	₱286,200,000	₱285,900,000	₱2,284,800,000	₱3,000,000,000	¥–	$–	€–	THB–	₱3,000,000,000
Floating Rate (exposed to cash flow risk)												
NEXI Loan	$18,750,000	$–	$–	$–	$–	$–	₱–	¥–	$18,750,000	€–	THB–	₱949,406,250
MTSP Loan	¥340,366,724	¥340,366,724	¥168,170,256	¥–	¥–	¥–	₱–	¥848,903,704	$–	€–	THB–	₱392,957,525
MWMP Loan	$6,292,040	$6,292,040	$6,292,040	$6,292,040	$6,292,040	$78,559,068	₱–	¥–	$110,019,268	€–	THB–	₱5,570,825,635
BDO Revolver Loan	₱–	₱–	₱2,000,000,000	₱–	₱–	₱–	₱2,000,000,000	¥–	$–	€–	THB–	₱2,000,000,000
BOC Loan	€–	€–	€–	€10,000,000	€10,000,000	€20,000,000	₱–	¥–	$–	€40,000,000	THB–	₱2,254,048,000
₱0.54 billion Clark Water DBP Loan	₱–	₱–	₱15,000,000	₱15,000,000	₱15,000,000	₱135,000,000	₱180,000,000	¥–	$–	€–	THB–	₱180,000,000
₱0.12 billion Boracay Water DBP-SBC Loan	₱7,352,941	₱7,352,941	₱7,352,941	₱7,352,941	₱7,352,941	₱49,632,354	₱86,397,059	¥–	$–	€–	THB–	₱86,397,059
THB5.30 billion Loan	THB–	THB–	THB–	THB–	THB5,300,000,000	THB–	₱–	¥–	$–	€–	THB5,300,000,000	₱8,909,830,000
Total in Original Currency							₱29,070,319,637	¥21,542,609,998	$128,769,268	€40,000,000	THB5,300,000,000	₱56,726,503,690
Total in PHP	₱10,617,230,754	₱9,526,407,838	₱6,860,832,576	₱2,386,764,424	₱13,080,356,924	₱14,254,911,174	₱29,070,319,637	₱9,972,074,168	₱6,520,231,885	₱2,254,048,000	₱8,909,830,000	₱56,726,503,690

Interest on financial instruments classified as floating rate is repriced on a semi-annual basis, unless otherwise stated. Interest on financial instruments classified as fixed rate is fixed until the maturity of the instrument.
The spot exchange rates used were ₱0.4629 to JP¥1, ₱50.6350 to US$1, ₱56.3512 to EUR1, and ₱1.6811 to THB1 in 2019.

	2018									
	Due in 2019	Due in 2020	Due in 2021	Due in 2022	Due in 2023	Due after 2023	Total in Original Currency (In PHP)	Total in Original Currency (In JPY)	Total in Original Currency (In USD)	Total (In PHP)
Liabilities:										
Long-Term Debt										
Fixed Rate (exposed to fair value risk)										
Fixed Rate Corporate Notes	₱25,000,000	₱25,000,000	₱4,775,000,000	₱–	₱–	₱–	₱4,825,000,000	¥–	$–	₱4,825,000,000
₱5.00 billion Metrobank Loan	₱25,000,000	₱4,850,000,000	₱–	₱–	₱–	₱–	₱4,875,000,000	¥–	$–	₱4,875,000,000
₱5.00 billion PNB Loan	₱500,000,000	₱500,000,000	₱500,000,000	₱500,000,000	₱500,000,000	₱2,375,000,000	₱4,875,000,000	¥–	$–	₱4,875,000,000
JP¥40.00 billion Loan	¥6,897,902,098	¥6,897,902,098	¥6,897,902,098	¥6,897,902,098	¥–	¥–	₱–	¥27,591,608,392	$–	₱13,108,773,147
₱1.15 billion Clark Water RCBC Loan	₱95,833,333	₱95,833,333	₱95,833,333	₱95,833,333	₱95,833,333	₱646,875,000	₱1,126,041,665	¥–	$–	₱1,126,041,665
₱0.10 billion Clark Water RCBC Loan	₱–	₱100,000,000	₱–	₱–	₱–	₱–	₱100,000,000	¥–	$–	₱100,000,000
₱0.75 billion Cebu Water DBP Loan	₱44,209,804	₱44,209,804	₱44,209,804	₱44,209,804	₱44,209,804	₱442,098,039	₱663,147,059	¥–	$–	₱663,147,059
₱0.50 Laguna Water Loan	₱66,666,667	₱66,666,666	–	₱–	₱–	₱–	₱133,333,333	¥–	$–	₱133,333,333
₱0.50 Laguna Water DBP Loan	₱29,411,765	₱29,411,765	₱29,411,765	₱29,411,765	₱29,411,765	₱286,764,704	₱433,823,529	¥–	$–	₱433,823,529
₱0.83 Laguna Water DBP Loan	₱50,484,848	₱50,484,848	₱50,484,848	₱50,484,848	₱50,484,848	₱492,227,276	₱744,651,516	¥–	$–	₱744,651,516
₱2.50 Laguna Water SBC Loan	₱192,307,692	₱192,307,692	₱192,307,692	₱192,307,692	₱192,307,692	₱1,346,153,848	₱2,307,692,308	¥–	$–	₱2,307,692,308
₱0.38 billion Boracay Water DBP-SBC Loan	₱22,058,824	₱22,058,824	₱22,058,824	₱22,058,824	₱22,058,824	₱170,955,880	₱281,250,000	¥–	$–	₱281,250,000
₱0.50 billion Boracay Water DBP-SBC Loan	₱31,473,214	₱31,473,214	₱31,473,214	₱31,473,214	₱31,473,214	₱243,917,412	₱401,283,482	¥–	$–	₱401,283,482
₱0.65 billion Boracay Water DBP-SBC Loan	13,541,667	₱54,166,667	₱54,166,667	₱54,166,667	₱54,166,667	₱419,791,665	₱650,000,000	¥–	$–	₱650,000,000
₱2.40 billion Boracay Water BPI Loan	₱–	₱–	₱–	₱–	₱30,000,000	₱570,000,000	₱600,000,000	¥–	$–	₱600,000,000
₱85.00 million Zamboanga Water DBP Loan	₱5,312,500	₱21,250,000	₱21,250,000	₱21,250,000	₱15,937,500	₱–	₱85,000,000	¥–	$–	₱85,000,000
₱0.45 billion Tagum Water PNB Loan	₱–	₱8,416,667	₱33,666,667	₱33,666,667	₱33,666,667	₱294,583,332	₱404,000,000	¥–	$–	₱404,000,000
₱4.00 billion MWPVI Loan	₱–	₱–	₱–	₱64,395,000	₱128,790,000	₱1,156,815,000	₱1,350,000,000	¥–	$–	₱1,350,000,000
Floating Rate (exposed to cash flow risk)										
NEXI Loan	$18,750,000	$18,750,000	$–	$–	$–	$–	₱–	¥–	$37,500,000	₱1,971,750,000
MTSP Loan	¥340,366,724	¥340,366,724	¥340,366,724	¥168,170,256	¥–	¥–	₱–	¥1,189,270,428	$–	₱565,022,380
MWMP Loan	$1,983,252	$3,966,504	$3,966,504	$3,966,504	$3,966,504	$53,490,732	₱–	¥–	$71,340,000	₱3,751,057,200
₱0.12 billion Boracay Water DBP-SBC Loan	₱7,352,941	₱7,352,941	₱7,352,941	₱7,352,941	₱7,352,941	₱56,985,295	₱93,750,000	¥–	$–	₱93,750,000
Total in Original Currency								¥28,780,878,820	$108,840,000	₱43,345,575,619
Total in PHP	₱5,637,709,162	₱10,731,967,719	₱9,504,676,053	₱4,712,260,511	₱1,444,252,035	₱11,314,710,140	₱23,948,972,892	₱13,673,795,527	₱5,722,807,200	₱43,345,575,619

Interest on financial instruments classified as floating rate is repriced on a semi-annual basis, unless otherwise stated. Interest on financial instruments classified as fixed rate is fixed until the maturity of the instrument.
The spot exchange rates used were ₱52.58 to US$1 and ₱0.4751 to JP¥1 in 2018.

The following tables demonstrate the sensitivity of the Group's income before income tax to a reasonably possible change in interest rates on December 31, 2019 and 2018, with all variables held constant (through the impact on floating rate borrowings).

	2019		2018	
	Changes in Basis Points	**Effect on Income Before Income Tax**	Changes in Basis Points	Effect on Income Before Income Tax
		(In Thousands)		(In Thousands)
Floating rate borrowings	**100**	**(₱115,125)**	100	(₱67,551)
	(100)	**115,125**	(100)	67,551

Foreign exchange risk

The Group's foreign exchange risk results primarily from movements of the PHP against the USD. Substantially all revenues are generated in PHP and majority of capital expenditures are also in PHP. Approximately 48.78% and 54.32% of debt as of December 31, 2019 and 2018, respectively, are denominated in foreign currency.

Information on the Group's foreign currency-denominated monetary assets and liabilities and their Peso equivalents are as follows:

	2019		2018	
	Original Currency	**Peso Equivalent**	Original Currency	Peso Equivalent
	(In Thousands)		(In Thousands)	
Assets				
Cash and cash equivalents:				
USD	**USD6,781**	**₱343,369**	USD11,368	₱597,751
CAD	**–**	**–**	CAD806	31,218
THB	**THB7,484**	**12,582**	THB8,054	13,064
IDR	**IDR294,844**	**1,074**	IDR1,568,250	5,694
VND	**VND15,332,720**	**33,503**	VND750,698	1,729
SGD	**SGD5**	**203**	SGD25	968
JP¥	**JP¥556**	**258**	JP¥556	264
Short-term investments:				
THB	**THB65,000**	**109,268**	–	–
		500,257		650,688
Liabilities				
Accounts payable:				
JP¥	**–**	**–**	JP¥75,861	36,042
IDR	**IDR288,720**	**1,052**	IDR5,829,688	21,167
USD	**USD1,149**	**58,156**	USD153	8,068
THB	**THB24,759**	**41,621**	THB1,597	2,591
SGD	**SGD27**	**999**	SGD65	2,511
VND	**VND41,998**	**92**	VND318,613	734
RMB	**–**	**–**	RMB6	47
MYR	**–**	**–**	–	3
Short-term debt:				
THB	**–**	**–**	THB5,300,000	8,596,539
Long-term debt:				
JP¥	**JP¥21,328,674**	**9,873,043**	JP¥28,402,974	13,494,253
USD	**USD127,903**	**6,476,358**	USD107,842	5,670,308
CAD	**CAD873**	**33,334**	CAD873	33,334
THB	**THB5,271,297**	**8,861,330**	–	–
EUR	**EUR39,413**	**2,220,971**	–	–
Service concession obligations:				
USD	**USD67,114**	**3,398,331**	USD64,859	3,410,310
JP¥	**JP¥454,048**	**210,179**	JP¥527,061	250,407
French Franc (FRF)	**–**	**–**	FRF4	35
		31,175,466		31,526,349
Net foreign currency-denominated liabilities		**(₱30,675,209)**		(₱30,875,661)

The spot exchange rates used were ₱50.6350 to US$1, ₱0.4629 to JP¥1, ₱37.4909 to SGD1, ₱0.0022 to VND1, ₱0.0036 to IDR1, ₱1.6811 to THB1, ₱38.1829 to CAD1 and ₱56.3512 to EUR1 in 2019, and ₱52.5800 to US$1, 0.4751 to JP¥1, ₱9.1692 to FRF1, ₱38.4706 to SGD1, ₱0.0023 to VND1, ₱0.0036 to IDR1, ₱1.6220 to THB1, ₱7.6773 to RMB1, ₱12.6558 to MYR1 and ₱38.7335 to CAD1 in 2018.

Under their respective concession agreements, the Parent Company and Boracay Water have a natural hedge on foreign exchange risks on their loans and concession fee payments through a recovery mechanism in their respective tariffs (see Notes 1 and 12). Thus, the Group does not expect any movement of the foreign currencies against the Philippine Peso to have a significant effect on the Group's income before income tax.

Credit risk
Credit risk is the risk that a counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss. The Group is exposed to credit risk from its operating activities (primarily trade receivables) and from its financing activities, including deposits with banks and financial institutions, foreign exchange transactions and other financial instruments.

Customer credit risk is managed by the Group's established policy, procedures and control relating to customer credit risk management. Credit risk for receivables from customers is managed primarily through credit reviews and an analysis of receivables on a continuous basis. The Group has no significant concentration of credit risk. Outstanding customer receivables and contract assets are regularly monitored and customer payments are facilitated through various collection modes including the use of postdated checks and auto-debit arrangements.

An impairment analysis is performed at each reporting date using a provision matrix to measure expected credit losses. The provision rates are based on days pagst due for groupings of customer segments with similar loss patterns (i.e., by geographical region, and product type). The calculation reflects the probability-weighted outcome and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions.

The provision matrix is initially based on the Group's historical observed default rates. The Group will calibrate the matrix to adjust the historical credit loss experience with forward-looking information.

Generally, trade receivables are written off when deemed unrecoverable and are not subject to enforcement activity. The maximum exposure to credit risk at the reporting date is the carrying value of each class of financial assets. The information about the credit risk exposure on the Group's receivables and contract assets using a provision matrix follow:

		December 31, 2019					
	Current	**Days Past Due**					
	Standard Grade	**Less than 30 Days**	**30 to 60 Days**	**61 to 90 Days**	**Over 90 Days**	**Expected Credit Loss**	**Total**
				(In Thousands)			
Receivables							
Trade receivables:							
Manila (Outside East Zone)	**₱396,362**	**₱261,503**	**₱100,361**	**₱56,748**	**₱110,797**	**₱156,398**	**₱1,082,169**
East Zone	**143,065**	**394,327**	**106,278**	**40,697**	**349,119**	**550,276**	**1,583,762**
Boracay	**42,060**	**21,018**	**5,518**	**3,059**	**8,586**	**133,812**	**214,053**
Clark	**36,781**	**593**	**145**	**46**	**1,293**	**5,265**	**44,123**
Laguna	**104,800**	**39,253**	**19,284**	**10,398**	**16,646**	**341,229**	**531,610**
Others	**16,895**	**–**	**–**	**–**	**–**	**50,357**	**67,252**
Employees	**30,797**	**–**	**–**	**–**	**–**	**423**	**31,220**
Interest from banks	**13,705**	**–**	**–**	**–**	**–**	**–**	**13,705**
Others	**121,337**	**–**	**–**	**–**	**–**	**62,881**	**184,218**
	905,802	**716,694**	**231,586**	**110,948**	**486,441**	**1,300,641**	**3,752,112**
Concession financial receivables	**1,054,539**	**–**	**–**	**–**	**–**	**15,952**	**1,070,491**
Contract assets	**1,423,386**	**–**	**–**	**–**	**–**	**–**	**1,423,386**
	₱3,383,727	**₱716,694**	**₱231,586**	**₱110,948**	**₱486,441**	**₱1,316,593**	**₱6,245,989**

		December 31, 2018					
	Current	Days Past Due					
	Standard Grade	Less than 30 Days	30 to 60 Days	61 to 90 Days	Over 90 Days	Expected Credit Loss	Total
				(In Thousands)			
Receivables							
Trade receivables:							
Manila (Outside East Zone)	₱192,272	₱88,557	₱18,500	₱16,776	₱91,230	₱133,524	₱540,859
East Zone	139,304	333,175	90,918	33,514	231,696	553,977	1,382,584
Boracay	33,243	12,015	7,014	4,062	6,479	122,081	184,894
Clark	35,576	682	55	27	36	6,523	42,899
Laguna	93,102	20,864	18,705	11,251	31,860	329,886	505,668
Others	144,267	–	–	–	–	93,770	238,037

(Forward)

	December 31, 2018						
	Current	Days Past Due					
	Standard Grade	Less than 30 Days	30 to 60 Days	61 to 90 Days	Over 90 Days	Expected Credit Loss	Total
				(In Thousands)			
BWC	₱388,411	₱–	₱–	₱–	₱–	₱–	₱388,411
Employees	31,156	–	–	–	–	–	31,156
Interest from banks	23,937	–	–	–	–	–	23,937
Others	177,563	–	–	–	–	–	177,563
	1,258,831	455,293	135,192	65,630	361,301	1,239,761	3,516,008
Concession financial receivables	1,047,042	–	–	–	–	14,599	1,061,641
Contract assets	891,391	–	–	–	–	–	891,391
	₱3,197,264	₱455,293	₱135,192	₱65,630	₱361,301	₱1,254,360	₱5,469,040

Credit risk from balances with banks and financial institutions is managed in accordance with the Group's policy. Investments of surplus funds are made only with approved counterparties and within credit limits assigned to each counterparty. Counterparty limits are reviewed and approved by the BOD and are updated when necessary.

Cash and cash equivalents and short-term investments are placed in various banks. Material amounts are held by banks which belong to the top five (5) banks in the country. The rest are held by local banks that have good reputation and low probability of insolvency. These are considered to be low credit risk investments.

Liquidity risk

The Group's objective is to maintain a balance between continuity of funding and flexibility through the use of bank overdrafts, bank loans, and debentures. The Group's policy is to maintain a level of cash that is sufficient to fund its operating cash requirements for the next four (4) to six (6) months and any claim for refund of customers' guaranty deposits. Capital expenditures are funded through long-term debt, while operating expenses and working capital requirements are sufficiently funded through internally generated cash. Maturing debts are refinanced through a combination of long-term debt and internally generated cash.

The Group's financial assets used for liquidity management based on their maturities are as follows:

	December 31, 2019			
	Within 1 year	**1-5 years**	**More than 5 years**	**Total - Gross**
Assets:				
Cash and cash equivalents	**₱8,958,243,402**	**₱–**	**₱–**	**₱8,958,243,402**
Short-term investments	**109,268,451**	**–**	**–**	**109,268,451**
Receivables:				
Customers	**3,498,316,543**	**–**	**–**	**3,498,316,543**
Employees	**31,219,817**	**–**	**–**	**31,219,817**
Interest from banks	**13,705,156**	**–**	**–**	**13,705,156**
ZCWD	**24,652,776**			**24,652,776**
Others	**184,217,465**	**–**	**–**	**184,217,465**
Concession financial receivable	**190,756,416**	**723,849,283**	**1,488,667,373**	**2,403,273,072**
	₱13,010,380,026	**₱723,849,283**	**₱1,488,667,373**	**₱15,222,896,682**

	December 31, 2018			
	Within 1 year	1-5 years	More than 5 years	Total - Gross
Assets:				
Cash and cash equivalents	₱9,390,591,273	₱–	₱–	₱9,390,591,273
Receivables:				
Customers	2,884,491,546	–	–	2,884,491,546
Employees	31,155,782	–	–	31,155,782
Interest from banks	23,936,806	–	–	23,936,806
ZCWD	10,450,032			10,450,032
Others	244,959,868	–	–	244,959,868
Concession financial receivable	193,706,164	739,220,074	1,664,052,998	2,596,979,236
	₱12,779,291,471	₱739,220,074	₱1,664,052,998	₱15,182,564,543

The Group's financial liabilities based on contractual undiscounted payments:

	December 31, 2019			
	Within 1 year	**1 to 5 years**	**More than 5 years**	**Total - Gross**
Liabilities:				
Accounts and other payables	**₱9,793,241,110**	**₱–**	**₱–**	**₱9,793,241,110**
Long-term debt*	**13,025,293,388**	**37,816,267,080**	**17,050,115,292**	**67,891,675,760**
Service concession obligation*	**1,249,894,110**	**3,903,710,920**	**10,051,672,122**	**15,205,277,152**
Lease liabilities*	**80,618,635**	**176,322,322**	**233,812,061**	**490,753,018**
Other noncurrent liabilities	**–**	**–**	**986,362,134**	**986,362,134**
	₱24,149,047,243	**₱41,896,300,322**	**₱28,321,961,609**	**₱94,367,309,174**

**Includes contractual interest cash flows*

	December 31, 2018			
	Within 1 year	1 to 5 years	More than 5 years	Total - Gross
Liabilities:				
Accounts and other payables	₱7,291,282,562	₱–	₱–	₱7,291,282,562
Short-term debt*	8,596,538,853	–	–	8,596,538,853
Long-term debt*	7,409,511,098	31,091,261,485	14,498,774,117	52,999,546,700
Service concession obligation*	1,109,493,873	3,537,891,757	9,086,915,451	13,734,301,081
Other noncurrent liabilities	–	–	776,778,646	776,778,646
	₱24,406,826,386	₱34,629,153,242	₱24,362,468,214	₱83,398,447,842

**Includes contractual interest cash flows*

Changes in liabilities arising from financing activities:

	December 31, 2019					
	Short-term Debt	**Long-term Debt**	**Service Concession Obligations**	**Lease Liabilities**	**Interest Payable**	**Total**
Balance at beginning of year	**₱8,596,538,853**	**₱43,050,927,571**	**₱7,928,526,704**	**₱218,762,542**	**₱435,977,783**	**₱60,230,733,453**
Cash flows	**(8,694,693,078)**	**13,507,605,554**	**(838,285,843)**	**(84,891,260)**	**(1,910,625,139)**	**1,979,110,234**
Accretion	**–**	**125,357,757**	**549,946,363**	**28,955,074**	**–**	**706,518,839**
Interest	**–**	**–**	**–**	**–**	**2,128,822,517**	**2,128,822,517**
Concession fees	**–**	**–**	**1,654,178,505**	**–**	**–**	**1,654,178,505**
Additions	**–**	**–**	**–**	**145,655,797**	**–**	**145,655,797**
Foreign exchange losses (gains)	**98,154,225**	**(328,082,750)**	**(140,544,043)**	**–**	**(160,746,366)**	**(533,478,579)**
Balance at end of year	**₱–**	**₱56,355,808,132**	**₱9,153,821,686**	**₱308,482,153**	**₱493,428,795**	**₱66,311,540,766**

	December 31, 2018				
	Short-term Debt	Long-term Debt	Service Concession Obligations	Interest Payable	Total
Balance at beginning of year	₱–	₱39,724,379,456	₱7,447,675,910	₱353,446,175	₱47,525,501,541
Cash flows	8,864,235,143	1,634,931,993	(955,119,919)	(1,537,004,584)	8,007,042,633
Accretion	–	138,892,431	438,668,268	–	577,560,699
Interest	–	–	–	1,619,536,192	1,619,536,192
Concession fees	–	–	948,016,106	–	948,016,106
Foreign exchange losses (gains)	(267,696,290)	1,552,723,691	49,286,339	–	1,334,313,740
Balance at end of year	₱8,596,538,853	₱43,050,927,571	₱7,928,526,704	₱435,977,783	₱60,011,970,911

Capital management

The primary objective of the Group's capital management strategy is to ensure that it maintains a healthy capital structure, in order to maintain a strong credit standing while it maximizes shareholder value.

The Group closely manages its capital structure vis-à-vis a certain target gearing ratio, which is total debt (less service concession) divided by the sum of the total stockholders' equity and total debt (less service concession The Group's target gearing ratio is set at 60%. This target is to be achieved by managing the Group's level of borrowings and dividend payments to shareholders.

	2019	2018
Total liabilities	**₱78,610,432,600**	₱68,912,223,712
Less service concession obligations	**9,153,821,686**	7,928,526,704
	69,456,610,914	60,983,697,008
Total stockholders' equity	**55,991,207,785**	53,621,093,192
Total	**₱125,447,818,699**	₱114,604,790,200
Gearing ratio	**55%**	53%

For purposes of computing its net debt, the Group includes the outstanding balance of its long-term debt (including current portion), accounts and other payables, less service concession obligations and cash and cash equivalents. To compute its total capital, the Group uses the total stockholders' equity.

	2019	2018
Total liabilities	**₱78,610,432,600**	₱68,912,223,712
Less:		
Service concession obligations	**9,153,821,686**	7,928,526,704
Cash and cash equivalents	**8,958,243,402**	9,390,591,273
	18,112,065,088	17,319,117,977
Net debt	**60,498,367,512**	51,593,105,735
Total stockholders' equity	**55,991,207,785**	53,621,093,192
Total net debt and stockholders' equity	**₱116,489,575,297**	₱105,214,198,927
Total net debt to equity ratio	**52%**	49%

As of December 31, 2019, the Parent Company's market capitalization significantly declined compared to its net book value

27. Commitments

Parent Company's Concession Agreement

The significant commitments of the Parent Company under the Concession Agreement and Extension are as follows:

a. To pay MWSS concession fees;

b. To post a performance bond, bank guarantee or other security acceptable to MWSS in favor of MWSS as a bond for the full and prompt performance of the Parent Company's obligations under the Agreement. The aggregate amounts drawable in one or more installments under such performance bond during the Rate Rebasing Period to which it relates are set out below.

Rate Rebasing Period	Aggregate amount drawable under performance bond (in US$ millions)
First (August 1, 1997 - December 31, 2002)	US$70.00
Second (January 1, 2003 - December 31, 2007)	70.00
Third (January 1, 2008 - December 31, 2012)	60.00
Fourth (January 1, 2013 - December 31, 2017)	60.00
Fifth (January 1, 2018 - December 31, 2022)	50.00
Sixth (January 1, 2023 - December 31, 2027)	50.00
Seventh (January 1, 2028 - December 31, 2032)	50.00
Eighth (January 1, 2033 - May 6, 2037)	50.00

Within thirty (30) days from the commencement of each renewal date, the Parent Company shall cause the performance bond to be reinstated in the full amount set forth above as applicable for that year.

With a minimum of ten (10)-day written notice period to the Parent Company, MWSS may make one or more drawings under the performance bond relating to a Rate Rebasing Period to cover amounts due to MWSS during that period; provided, however, that no such drawing shall be made in respect of any claim that has been submitted to the Appeals Panel for adjudication until the Appeals Panel has handed down its decision on the matter.

In the event that any amount payable to MWSS by the Parent Company is not paid when due, such amount shall accrue interest at a rate equal to that of a 364-day Treasury Bill for each day it remains unpaid;

c. With the Extension, the Parent Company agreed to increase its annual share in MWSS operating budget by 100% from ₱100.00 million to ₱395.00 million, subject to annual CPI;

d. To meet certain specific commitments in respect of the provision of water and sewerage services in the East Zone, unless deferred by MWSS RO due to unforeseen circumstances or modified as a result of rate rebasing exercise;

e. To operate, maintain, renew and, as appropriate, decommission facilities in a manner consistent with the National Building Standards and best industrial practices so that, at all times, the water and sewerage system in the East Zone is capable of meeting the service obligations (as such obligations may be revised from time to time by the MWSS RO following consultation with the Parent Company);

f. To repair and correct, on a priority basis, any defect in the facilities that could adversely affect public health or welfare, or cause damage to persons or third-party property;

g. To ensure that at all times, the Parent Company has sufficient financial, material and personnel resources available to meet its obligations under the Agreement; and

h. To ensure that no debt or liability that would mature after the life of the Agreement will be incurred unless with the approval of MWSS.

The Parent Company is committed to perform its obligations under the Concession Agreement and Extension to safeguard its continued right to operate the Concession.

Laguna Water's Concession Agreement
The significant commitments of Laguna Water under its concession agreement with PGL are as follows:

a. To pay PGL concession fees;

b. To manage, occupy, operate, repair, maintain, decommission, and refurbish the transferred facilities;

c. To design, construct and commission the new facilities during the cooperation period;

d. To provide and manage the services;

e. To bill and collect payment from the customer for all services;

f. To extract raw water exclusively from all sources of raw water; and

g. To negotiate in good faith with PGL any amendment or supplement to the concession agreement to establish, operate and maintain wastewater facilities if doing such is financially and economically feasible.

On June 30, 2015, PGL and MWPVI signed an amendment to their JVA dated November 10, 2000. Simultaneously, and consequent to the amendment of the JVA of Laguna Water, Laguna Water signed an amendment to its concession agreement with the PGL which includes the following:

a. Expansion of its concession area to cover all cities and municipalities in the PGL; and

b. Inclusion in the service obligations of Laguna Water the provision of wastewater services and the establishment of an integrated sewage and septage system in the province.

Laguna Water's APA with LTI
On December 23, 2013, Laguna Water entered an APA with LTI to acquire and operate its water operations division in Laguna. The significant commitments of Laguna Water under the agreement follow:

a. Offer water supply and sewerage services to all current or future locators in the Laguna Technopark, including future area(s) of expansion;

b. Ensure the availability of an uninterrupted 24-hour supply of water to all current and future locators, subject to interruptions resulting from the temporary failure of items of the Water Facilities (where Laguna Water acts promptly to remedy such failure) or required for the repair of the construction of the Water Facilities where such repairs or construction cannot be performed without interruption to the supply of water;

c. Upon request from a current or future locator in the LTI for a connection to a water main, make such a connection as soon as reasonably practicable, upon payment of reasonable connection fees as determined by Laguna Water;

d. Ensure at all times that the water supplied to current and future locators in LTI complies with Philippine National Standards for Drinking Water as published by the Department of Health (or successor entity responsible for such standards) and prevailing at such time and shall observe any requirement regarding sampling, record keeping or reporting as may be specified by law;

e. Make available an adequate supply of water for firefighting and other public purposes as the municipality and/or barangay in which LTI may reasonably request. Laguna Water shall not assess for such water used for firefighting purposes but may charge for all other water used for public purposes; and

f. Laguna Water shall make a supply of water available to current and future locators in LTI, including the areas of expansion in the future.

Boracay Water's Concession Agreement
The significant commitments of Boracay Water under its concession agreement with TIEZA are as follows:

a. Meet certain specific commitments in respect of the provision of water and sewerage services in the service area, unless deferred by the TIEZA-RO due to unforeseen circumstances or modified as a result of rate rebasing exercise;

b. Pay concession fees, subject to the following provisions:

   i. Assumption of all liabilities of the BWSS as of commencement date and service such liabilities as they fall due. BWSS has jurisdiction, supervision and control over all waterworks and sewerage systems within Boracay Island prior to commencement date. The servicing of such liabilities shall be applied to the concession fees;

   ii. Payment of an amount equivalent to 5% of the monthly gross revenue of Boracay Water, inclusive of all applicable taxes. Such payments shall be subject to adjustment based on the gross revenue of Boracay Water as reflected in its separate financial statements;

   iii. Provision of the amount of the TIEZA BOD's approved budget in 2012, payable semi-annually and not exceeding:

Month	Maximum Amount
January	₱10,000,000
July	10,000,000

   iv. Provision of the annual operating budget of the TIEZA-RO, payable in 2 equal tranches in January and July and not exceeding:

Year	Maximum Amount
2011	₱15,000,000
2012	20,000,000
2013 and beyond	Previous year, subject to annual CPI adjustment

c. Establish, at Boracay Island, a TIEZA-RO building with staff house, the cost of which should be reasonable and prudent;

d. Pay an incentive fee pegged at ₱1.00 per tourist, local and foreign, entering the service area;

e. Raise financing for the improvement and expansion of the BWSS water and wastewater facilities;

f. Operate, maintain, repair, improve, renew and, as appropriate, decommission facilities, as well as to operate and maintain the drainage system upon its completion, in a manner consistent with the National Building Standards and best industrial practices so that, at all times, the water and sewerage system in the service area is capable of meeting the service obligations (as such obligations may be revised from time to time by the TIEZA-RO following consultation with Boracay Water);

g. Repair and correct, on a priority basis, any defect in the facilities that could adversely affect public health or welfare, or cause damage to persons or third-party property; and

h. Ensure that at all times, Boracay Water has sufficient financial, material and personnel resources available to meet its obligations under the concession agreement.

In addition, the Parent Company, as the main proponent of Boracay Water, shall post a bank security in the amount of US$2.50 million to secure the Parent Company's and Boracay Water's performance of their respective obligations under the agreement. The amount of the performance security shall be reduced by the Parent Company following the schedule below:

Rate Rebasing Period	Amount of Performance Security (in US$ millions)
First	US$2.50
Second	2.50
Third	1.10
Fourth	1.10
Fifth	1.10

On or before the start of each year, Boracay Water shall cause the performance security to be reinstated in the full amount set forth as applicable for that year.

With a minimum of ten (10) days written notice period to Boracay Water, TIEZA may take one or more drawings under the performance security relating to a Rate Rebasing Period to cover amounts due to TIEZA during that period; provided, however, that no such drawing shall be made in respect of any claim that has been submitted to the Arbitration Panel for adjudication until the Arbitration Panel has handed its decision on the matter.

In the event that any amount payable to TIEZA by Boracay Water is not paid when due, such amount shall accrue interest at a rate equal to that of a 364-day Treasury Bill for each day it remains unpaid.

Failure of Boracay Water to perform any of its obligations that is deemed material by TIEZA-RO may cause the concession agreement to be terminated.

Clark Water's Concession Agreement

The significant commitments of Clark Water under its concession agreement with CDC are follows:

a. Pay franchise and lease fees of CDC;

b. Finance, design, and construct new facilities - defined as any improvement and extension works to (i) all existing facilities - defined as all fixed and movable assets specifically listed in the concession agreement; (ii) construction work - defined as the scope of construction work set out in the concession agreement; and (iii) other new works that do not constitute refurbishment or repair of existing facilities undertaken after commencement date;

c. Manage, exclusively possess, occupy, operate, repair, maintain, decommission and refurbish the existing facilities, except for the private deep wells set out in the concession agreement, the negotiations for the acquisition and control of which shall be the sole responsibility and for the account of the Clark Water; and manage, own, operate, repair, maintain, decommission and refurbish the new facilities;

d. Treat raw water and wastewater in CFZ;

e. Provide and manage all water and wastewater related services like assisting locator in relocating of pipes and assess internal leaks;

f. Bill and collect payment from the customers for the services (with the exception of SM City Clark). SM City Clark has been carved out by virtue of RA No. 9400 effective 2007 even if it is located within the franchise area; and

g. Extract raw water exclusively from all sources of raw water including all catchment areas, watersheds, springs, wells and reservoirs in CFZ free of charge by CDC.

On August 15, 2014, the Clark Water and CDC signed an amendment agreement to the concession agreement dated March 16, 2000. The Amendment provides for the following:

a. Extension of the original concession period for another fifteen (15) years up to October 1, 2040;

b. Additional investment of ₱4.00 billion provided under the amended concession agreement to be spent for further improvement and expansion water and waste water services in the area. Investment requirement under the original CA amounted to ₱3.00 billion and the amended concession agreement required an additional investment of ₱2.00 billion. Total investment prior to the amendment of the concession agreement amounted to ₱1.00 billion;

c. Introduction of rate rebasing mechanism for every four (4) years starting 2014;

d. Reduction in tariff rates by 3.9% (from ₱25.63/m^3 to P₱24.63/m^3) effective September 1, 2014, subject to the Extraordinary Price Adjustment; and

e. Increase in tariff rates by:
   i. ₱0.41/m^3 (from ₱24.63/m^3 to ₱25.04/m^3) in 2018
   ii. ₱0.42/m^3 (from ₱25.04/m^3 to ₱25.45/m^3) in 2019
   iii. ₱0.42/m^3 (from ₱25.45/m^3 to ₱25.87/m^3) in 2020
   iv. ₱0.43/m^3 (from ₱25.87/m^3 to ₱26.30/m^3) in 2021

As a result of the extension of the concession period, service concession assets and service concession obligation as of August 15, 2014 increased by ₱56.58 million. Further, the recovery period of Clark Water's investment is now extended by another fifteen (15) years from 2025 to 2040.

On May 26, 2017, Clark Water submitted its proposed 2018 rate rebasing plan following the four (4)-year rebasing period stated in its concession agreement. As of December 31, 2019, Clark Water's 2018 rate rebasing is still ongoing which put on hold the approved tariff increases when the concession agreement was amended in August 15, 2014.

Cebu Water's Bulk Water Supply Agreement
On December 18, 2013, Cebu Water entered into a bulk water supply agreement with MCWD. The significant commitments of Cebu Water under its agreement with MCWD are as follows:

a. Provide potable and treated water at an aggregate volume of eighteen (18) million liters per day for the first year and thirty-five (35) million liters per day for the succeeding years up to twenty (20) years at ₱24.59 per cubic meter;

b. Ensure that the source shall be sustainable and 100% reliable at any day for the duration of the agreement; and

c. Construct a facility capable of delivering a production capacity of thirty-five (35) million liters per day and maintain the same on its account.

Zamboanga Water's NRWRSA
On June 2, 2015, the Zamboanga Water entered into a NRWRSA with ZCWD. The NRWRSA sets forth the rights and obligations of the Zamboanga Water throughout the ten (10)-year period. The significant provisions under the agreement with ZCWD consist of:

a. Zamboanga Water is required to implement Network Restructuring and NRW Reduction Programs for ZCWD's water distribution system; and

b. Zamboanga Water has the right to restructure and maintain the facilities in the ZCWD service area but legal title to these assets remains with ZCWD. The legal title to all fixed assets contributed to the existing ZCWD system by Zamboanga Water during the project tenure remains with Zamboanga Water until the expiration date (or an early termination date) at which time all rights, titles and interest in such assets will automatically vest in ZCWD.

Tagum Water's Bulk Water Supply Agreement
Tagum Water will have the sole and exclusive right and responsibility during the term of the agreement to:

a. Develop raw surface water sources in Hijo River;

b. Plan, develop, design, build and test the facilities;

c. Implement the Tagum Bulk Water Project;

d. Manage, use, occupy, operate, repair, maintain, upgrade and develop the facilities; and

e. Supply treated water to TWD for distribution to its network.

Facilities and any and all assets, equipment and properties used by Tagum Water to implement the bulk water project will be owned by Tagum Water even after the expiration of the BWSPA.

MWPVI's MOA with ALI
MWPVI's significant commitments under its MOA with ALI are as follows:

a. Provision of water and used water services in existing ALI Group developments;

b. Connection and disconnection of services to customers;

c. Collection of billings for water and used water services, including service connection fees, from all customers;

d. Customer relations and compliance with regulatory requirements;

e. Develop, construct, finance, own, operate, maintain, rehabilitate, and upgrade future water and used water facilities; and

f. Maintain, rehabilitate, and upgrade existing water and used water facilities at MWPVI's own cost.

Aqua Centro's MOAs with the SM Group
Under Aqua Centro's MOAs with the SM Group, Aqua Centro will develop, construct, finance, own, operate, maintain, rehabilitate, and upgrade the potable water and/or grey water facilities of the SM Group development.

Calasiao Water's Concession Agreement
The significant commitments of Calasiao Water under its concession agreement with CWD are as follows:

a. Finance, design, engineer, and construct new facilities for water;

b. Upgrade existing water facilities;

c. Operate, manage, and maintain water facilities and services; and

d. Bill and collect tariff for water services.

Obando Water's Concession Agreement
The significant commitments of Obando Water under its concession agreement with OWD are as follows:

a. Finance, design, engineer, and construct new facilities for water and sanitation;

b. Upgrade existing water and sanitation facilities;

c. Operate, manage, and maintain water and sanitation facilities and services; and

d. Bill and collect tariff for water and sanitation services.

MWPVI's Lease Agreement with PEZA
On December 18, 2017, MWPVI entered into a Lease Agreement for the Operations and Management of the Water and Used Water Facilities of PEZA in Cavite Economic Zone (CEZ), whereby MWPVI agrees to lease, operate, and maintain the existing water and used water facilities in the CEZ for the provision of water and used water services to the locators therein. The lease agreement has a term of twenty-five (25) years from signing of the contract and shall be effective on its commencement date on February 1, 2018.

MWPVI's MOA with LTI
On April 16, 2016, the MWPVI entered into a MOA with LTI, whereby through its division, Estate Water, MWPVI shall exclusively provide water and used water services to LTI's Cavite Technopark to be located in Barangay Sabang, Naic, Cavite, and in pursuit of this objective, to construct, develop, finance, and own the water facilities and used water facilities under the terms and conditions set out in the MOA.

Bulakan Water's Concession Agreement
The significant commitments of Bulakan Water under its concession agreement with BuWD are as follows:

a. Financing, designing, engineering, and constructing new facilities for water and sanitation such as, but not limited to, deep wells, reservoirs, and booster pumps;

b. Upgrading of existing water and sanitation facilities, including water network replacement and expansion;

c. Operating, managing, and maintaining water and sanitation facilities and services; and

d. Billing and collection of tariff for water and sanitation services including a seven (7)-year replacement cycle program commencing on Year 1 of the concession.

North Luzon Water's MOAs with the Municipalities of Sta. Barbara, San Fabian, and Manaoag in Pangasinan
The significant commitments of North Luzon Water under its MOAs are as follows:

a. Construct, maintain, and operate a water system;

b. Construct, maintain, and implement a septage management system;

c. Supply, sell, and furnish water to any person or entity within the territorial limits and political boundaries of the Municipalities of Sta. Barbara, San Fabian, and Manaoag for domestic, commercial or other use, and to charge and collect tariff for the supply of water; and

d. Provide septage management services and to charge and collect septage management fees and sewage collection.

Laguna Water's JVA with PAGWAD
The significant commitments of Laguna Water under its JVA with PAGWAD are as follows:

a. Finance, design, engineer, and construct new facilities for water and sanitation;

b. Upgrade existing water and sanitation facilities;

c. Operate, manage, and maintain water and sanitation facilities and services; and

d. Bill and collect tariff for water supply and sanitation services.

South Luzon Water's JVA with TnWD
The significant commitments of South Luzon Water under its JVA are as follows:

a. Develop, improve, and expand the water infrastructure of TnWD;

b. Provide water supply and install new water service connections;

c. Provide sanitation services and septage management within the service area;

d. Ensure continuous water supply and appropriate pressure;

e. Connect water service connections to the water main;

f. Ensure potability of water supply and compliance with drinking water quality standards;

g. Provide high quality customer/after-sales service; and

h. Payment of revenue share to TnWD.

Aqua Centro's JVA with LWD
The significant commitments of Aqua Centro under its JVA are as follows:

a. Develop, improve, and expand the water infrastructure of LWD;

b. Provide water supply and install new water service connections;

c. Ensure continuous water supply and appropriate pressure;

d. Connect water service connections to the water main;

e. Ensure potability of water supply and compliance with drinking water quality standards;

f. Provide high quality customer/after-sales service; and

g. Payment of revenue share to LWD.

Calbayog Water's JVA with CCWD
The significant commitments of Calbayog Water under its JVA are as follows:

a. Develop, improve, and expand the water infrastructure of CCWD;

b. Provide water supply and install new water service connections;

c. Ensure continuous water supply and appropriate pressure;

d. Connect water service connections to the water main;

e. Ensure potability of water supply and compliance with drinking water quality standards;

f. Provide high quality customer/after-sales service; and

g. Payment of revenue share of CCWD.

28. Leases

The Group as a Lessee
The Group leases office space and storage and plant facilities wherein it is the lessee. The terms of the lease range from one year or until the end of the concession period.

As of December 31, 2019, the movements in the Group's right-of-use assets and lease liabilities follow:

Right-of-use assets	
Balance at beginning of year	₱222,626,005
Additions	145,655,796
Depreciation expense	(72,607,192)
Balance at end of year	₱295,674,609

Lease liabilities	
Balance at beginning of year	₱218,762,542
Additions	145,655,796
Payments	(84,891,260)
Accretion	28,955,075
Balance at end of year	₱308,482,153

The maturity analysis of lease liabilities are disclosed in Note 26.

The following are the amounts recognized in profit or loss in 2019:

Depreciation expense of right-of-use assets	₱72,607,192
Interest expense on lease liabilities (Note 17)	28,955,075
Expenses relating to short-term leases	111,652,254
	₱213,214,521

As of December 31, 2018, the Group's future minimum lease payments are as follows:

Within one year	₱54,394,653
After one year but not more than five years	101,974,116
More than five years	253,990,310
	₱410,359,079

Total rent expense recognized in 2018 amounted to ₱34.02 million while security deposits amounted to ₱10.32 million as of December 31, 2018.

29. Provisions and Contingencies

On October 13, 2005, the Municipality of Norzagaray, Bulacan assessed the Parent Company and Maynilad Water Services, Inc. (jointly, the Concessionaires) real property taxes on certain common purpose facilities registered in the name of and owned by MWSS purportedly due from 1998 to 2005 amounting to ₱357.11 million. On November 15, 2010, the local government of Quezon City demanded the payment of ₱302.71 million for deficiency real property taxes from MWSS on MWSS properties within its territorial jurisdiction. The assessments from the municipality of Norzagaray and Quezon City have been questioned by the Concessionaires and MWSS, and are pending resolution before the Central Board of Assessment Appeals and Supreme Court, respectively. On November 7, 2018, the Supreme Court issued its decision declaring that the real properties of the MWSS located in Quezon City are exempt from the real estate tax imposed by the local government of Quezon City. Total provision for these assessments amounted to nil and ₱416.23 million as of December 31, 2019 and 2018, respectively.

As of December 31, 2019 and 2018, the remaining provision for estimated probable losses pertains to various legal proceedings and exposures arising in the ordinary course of business. Management believes that any amount the Group may have to pay in connection with any of these matters will not have a material adverse effect on the Group's financial position or operating results. The information normally required under PAS 37, *Provisions, Contingent Liabilities and Contingent Assets*, is not disclosed as it may prejudice the outcome of the proceedings (Note 1).

30. Events After the Reporting Period

Parent Company

On January 29, 2020, the Parent Company received a response letter from the MWSS RO confirming that the twenty-five (25)-year Concession Agreement from 1997 to 2022 and the Memorandum of Agreement and Confirmation between the Parent Company and the MWSS providing for the fifteen (15)-year extension from 2022 to 2037 have not yet been cancelled.

On January 31, 2020, the BOD approved the amendment of the Seventh Article of the Articles of Incorporation to increase the authorized capital stock from ₱3.50 billion to ₱4.40 billion, which increase will consist of an additional 900.00 million common shares. The BOD also approved the increase in the carved-out shares from 300.00 million to 900.00 million unissued common shares and to allow the issuance of the carved-out shares "for cash, properties or assets to carry out" the corporate purposes" of the Parent Company as approved by the BOD.

On February 1, 2020, the Parent Company and Prime Metroline Holdings, Inc., on behalf of a company to be incorporated (to be named Trident Water), signed a subscription agreement for the acquisition of 820.00 million common shares (equivalent to 24.96% economic rights) of the Parent Company at ₱13.00 per share.

On February 6, 2020, Ayala, as part of the shareholder agreement to be executed among itself, its wholly owned subsidiary Philwater Holdings Co., Inc. (Philwater) and Trident Water, Ayala's Executive Committee approved the grant of proxy rights by Philwater to Trident Water over its 4,000,000,000 preferred shares to enable the latter to achieve 51.00% voting interest in the Parent Company, subject to the fulfillment of the conditions set forth in the subscription agreement. Upon the grant of proxy rights to Trident Water, Ayala's effective voting interest in the Parent Company will stand at 31.60%. This arrangement aims to strategically rationalize the economic and voting stakes between Ayala and Trident Water as strategic partners in the Parent Company.

On February 7, 2020, the Parent Company received a letter from Prime Metroline Holdings, Inc., that it has announced through publication in a newspaper of general circulation, its intention to make a mandatory offer for the shares of the Parent Company at an offer price of ₱13.00 per share.

The subscription agreement will become effective after certain conditions precedent are met, including relevant third party consents and regulatory approvals.

Zamboanga Water
On February 17, 2020, the BOD of MWPVI approved the extension of Zamboanga Water's shareholder loan amounting to ₱76.00 million which will be used by Zamboanga Water for the prepayment in 2020 of its outstanding loan with DBP.

MW Consortium
On February 3, 2020, MW Consortium and the PGC signed the Terms of Reference for the interim protocol between both parties pending Settlement with Finality of the Dispute between MW Consortium and PGC.

Corporate Information

MWSS Administration Building
489 Katipunan Road, Balara
Quezon City, 1105 Philippines
Tel.: +63(2) 7917 5900
www.manilawater.com

CUSTOMER SERVICE
Customer Service Hotline: 1627
Tel.: +63(2) 917 5900 local 1520
Facebook: www.facebook.com/manilawater
Twitter: www.twitter.com/ManilaWaterPH

INQUIRIES
For inquiries or concerns from analysts, institutional investors,
the financial community, and the general public, please contact:
Investors: invrel@manilawater.com
Governance: corpgov@manilawater.com
Sustainability: sustainability@manilawater.com
Media: corpcomm@manilawater.com

SHAREHOLDER SERVICES AND ASSISTANCE
For inquiries regarding dividend payments,
change of address and account status,
lost or damaged stock certificates, please contact:
BPI Stock Transfer Office
3/F BPI Buendia Center
372 Senator Gil Puyat Avenue
Makati City, 1226 Philippines
Tel.: +63(2) 8580-4693 to 95

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- Jose Rene Gregory D. Almendras,
  CEO, Manila Water

MANILA WATER
CARE IN EVERY DROP

Manila Water Company, Inc.
MWSS Administration Building
489 Katipunan Road, Balara
Quezon City, 1105 Philippines
Tel. No. +63(2) 7917 5900
www.manilawater.com