Answering the Challenges of Safe Drinking Water Supply in Jakarta

1. Background

Universal access to safe drinking water is a human right recognized by the UN through resolution 64/292. Water is a vital human need and everyone must have access to safe drinking water. Furthermore, safe drinking water means “The water required for each personal or domestic use must be safe, therefore free from micro-organisms, chemical substances and radiological hazards that constitute a threat to a person’s health.”\(^1\) In realizing this right, the most accessible safe drinking water is provided through piped water service to houses.

However, in a heavily populated city like Jakarta, providing safe drinking water through piped water service is a complex work. The population of Jakarta is 9.6 million\(^2\). It means, by using the assumption that each individual needs 175 liter/day, the water need of Jakarta can reach more than 900 million m\(^3\)/year\(^3\), and will keep increasing due to rapid population growth. Providing safe drinking water for this huge demand is a real challenge and in which millions of lives will depend on.

To meet the water demand, the population of Jakarta generally relies on two main sources, piped water service and groundwater. Groundwater is the major source for clean water. With the piped water service providing 297 million m\(^3\), the rest of the water need, or about 600 million m\(^3\)/year, is most possibly supplied by groundwater. It raises concerns because using groundwater in Jakarta has serious risks. Excessive groundwater exploitation causes environmental problems such as land subsidence and saltwater intrusion. Besides, Jakarta’s groundwater is prone to health issues as it is vastly contaminated with E coli (as much as 90%\(^4\)).

Therefore, the availability of good piped water service in urban environment such as Jakarta is considered crucial. World Health Organization (WHO) notes that the improvement of access to piped water in urban areas have dramatically reduced deaths from infection. Lack of access to safe drinking water, on the other hand, has caused “Almost half of city dwellers in Africa, Asia, and Latin America suffer from at least one disease caused by lack of safe water and sanitation.”\(^5\) Inclusive piped water service is also important for an equal access to water.

In Jakarta, piped water service is the responsibility of PAM Jaya, a public utility which cooperates with two private operators, PT Palyja and PT Aetra, to deliver the service to customers. The cooperation between PAM Jaya and the private operators use the model of
Operate, Develop, and Transfer\(^6\), where PAM Jaya hands over its business (or some part of its business) through a concession, to be developed and will be returned again by the private operators\(^7\) in 2022. PT Palyja delivers the service for the western part of the city, while PT Aetra the eastern part.

There are currently disputes and some changes regarding this cooperation agreement. One of the reasons is because the water services performance is considerably inadequate in providing the water supply. On paper, the service covers 60% of the population\(^8\). As a parameter, the service coverage ratio that is stated on the cooperation agreement is 74.55 percent.\(^9\) The leakage level is 44 percent, higher than the average water utility’s leakage level nationally, which is 31 percent.\(^10\)

Customers often complain about the quality of service they receive. The cases where water does not available for hours and even days are often. Especially in lower income communities in North Jakarta, families have to buy water from vendors in jerry cans, with much higher price than the water tariff, because the lack of piped water service. For these jerry can waters, the residents have to pay about Rp15.000/day, a very expensive amount for people who have daily income of less than Rp30.000.\(^11\)

The number of population who uses piped water for drinking source is still low. According to a study by University of Indonesia, the population who uses piped water for drinking is only 24.4\% (through vendors), and 11.3\% (through metered pipes).\(^12\) It is still far for the piped water service in Jakarta to provide potable tap water for customers. The population will still be dependent on bottled water, which leads to other problems such as affordability for lower income community, wastes, monitoring for its health, etc.

The urgency to improve piped water service in Jakarta is apparent. Assuming that the safe limit of groundwater use is 212 million m\(^3\)/year,\(^13\) the piped water service needs to cover the water supply deficit as much as 411 million m\(^3\)/year. It should also be able to anticipate the population which grows 2\% per year. Furthermore, in order to encourage people to use piped water, the water utility still needs to struggle with the tariff as Jakarta’s water tariff is high relative to water tariff in other big cities in Indonesia.

This inadequate water service has been causing discontents either for the community and government. The latter has attempted to take over water from private operators by share repurchase. Using the argument of minimum termination penalty, Jakarta provincial government is planning to purchase the private operator’s shares through Jakarta Propertindo, a real estate company owned by the state. The new management will continue the same system used by the private operators, one of the reasons why this maneuver is a slippery slope.

The community, on the other hand, wants the privatization completely ended. Through a citizen lawsuit against water privatization, they want the cooperation agreement which gives sole right to private operators to deliver water services become null and void. The water management, therefore, becomes the responsibility of PAM Jaya again, as actually mandated by the law, as mentioned in Regional Regulation 13/1992, Law 7/2004 on Water
Resources, and Constitutional Court’s interpretation of Article 5 of Law 7/2004 on Water Resources.

Meanwhile, Jakarta has even a bigger work to improve its sanitation system, which is currently practically being neglected and forgotten. The city’s sanitation is managed separately from the piped water service by PAL Jaya, a state owned company. Currently, PAL Jaya’s service coverage is still less than 5 percent, while 70 percent of the population uses septic tanks and the other 11 percent disposes domestic wastes directly to the environment. Sanitation system is needed to reduce contaminations to water resources.

For improving the water services, the water utility needs major measures to increase the bulk and treated water supply, increase water production, and reduce the leakage. In addition, the water utility needs to build new water treatment plants, maintain and optimize the available water treatment plants, fix the water networks, and integrate the sanitation management.

Before that, however, Jakarta has to firmly decide whose hands should manage the water.

2. Water Services in Jakarta

2.1. Water Services Management

Water services in Jakarta are the responsibility of Jakarta Drinking Water Company (PAM Jaya), a state owned company of Jakarta provincial government. In delivering the water services, PAM Jaya cooperated with private operators. Private sector involvement in Jakarta water services began to be initiated in June 1991 through a water and sanitation infrastructure loans worth USD 92 million by the World Bank and Japan International Cooperation Agency to PAM Jaya. These two institutions promoted privatization in water services, until two foreign water companies stepped in.

The private sector was officially involved in Jakarta water services in 1997, when Suharto’s power was still solid. Thames Water Overseas Ltd. managed to take part through Sigit Harjojudanto, Suharto’s son, while GDF Suez established a partnership with Anthony Salim. Each private water operator is given a sole right to deliver water services for half of the city, effective in 1998.

Those two private operators are PT PAM Lyonnaise Jaya (Palyja) and PT Aetra Air jakarta (Aetra). Palyja’s majority shares, as much as 51%, are owned by Suez Environment, a French-based utility company, and the other 49% by Astratel Nusantara, an Indonesian-based infrastructure company. Aetra’s majority shares (95%) are owned by Acuatico PTE. LTD., a Singaporean-based investment company, which in 2007 acquired them from Thames Water Overseas Limited, and the 5% shares are owned by PT Alberta Utilities, an Indonesian based company.

After 1997, the contract agreement between PAM Jaya and two private operators have gone through some changes, amendment, restatement, and complicated and prolonged contract
renegotiation. The cooperation agreement was amended in 2001 to adjust to the economic and political situation after the 1998 crisis. The cooperation agreement was restated on October 22, 2001. This 2001 cooperation agreement was followed by rebasing (i.e. changes in five-year targets that should be met by private operators) which had been applied in 2003-2007 and 2008-2012. It is in this rebasing process that is believed to be prone to corruption because PAM Jaya frequently agreed to lower the performance targets for private operators.

However, PAM Jaya’s awareness later arose, that the cooperation agreement has made PAM Jaya suffer from business losses, and at the same time the private operators’ performance did not improve. In late 2011 PAM Jaya showed an inclination to renegotiate the contract. It began when the director of PAM Jaya Maurits Napitupulu voiced loudly that privatization has brought PAM Jaya into huge financial losses, up to Rp18.2 trillion, if the cooperation agreement is continued until its expiry date in 2022. Vice Governor of Jakarta Tjahaja Basuki Purnama called the cooperation agreement “crazy”, for the same reason.

The renegotiation process did not run smoothly. Aetra was the first to agree to compromise with some renegotiated items which were added as addendum to the cooperation agreement, in December 2012. The approved items were to lower the Internal Rate of Return (IRR), which was considered too high, from 22% to 15.8%; to eliminate Rp330 billion of shortfall debt; and to decrease the leakage level from 29% to 25%. Palyja, on the other hand, refuses until today.

Finally in March 2013 the Governor of Jakarta, Joko Widodo, stated that the water privatization would be ended. Jakarta has been weary of the problems caused by the privatization.

The civil society and water trade union had even earlier opposed the privatization. Countless rallies and public discussions had been organized to urge the water services to be brought back into public hands. The resistance continued to escalate until the Coalition of Jakarta Residents Opposed to Water Privatization (KMMSAJ), a coalition of NGOs, customers, and citizens, reported an allegedly corruption case that involved PAM Jaya and the two private operators to The Corruption Eradication Commission (KPK) in January 2012, as well as organized a citizen lawsuit on privatization of water services in Central Jakarta District Court in April 2013.

Currently there is a difference of opinion between the government and the civil society regarding the management of water services in Jakarta. Some CSOs, in a citizen lawsuit against the water services privatization in Jakarta, demand the water to be managed by PAM Jaya. The government, on the other hand, is planning to take over water services through PT Jakarta Propertindo, a real estate company owned by provincial government of Jakarta. The government has been urging the civil society to withdraw the citizen lawsuit.15
2.2. The Troubled Privatization

Privatization of water services in Jakarta has already been problematic from the cooperation agreement between PAM Jaya, a state owned water utility, and the two private operators, Palyja and Aetra. A number of problems that occur today, such as PAM Jaya’s mounting debts, poor water services, high water tariff, are basically caused by the cooperation agreement. While it guarantees private operator’s business profit, PAM Jaya and the customers should bear the losses and the private operators’ high costs.

The cooperation agreement of water services privatization was first signed on July 6, 1997 and became effective on February 1, 1998 for a 25-year period. To adjust to the situation after a political and economic crisis in 1998, the cooperation agreement was amended and restated on October 22, 2001.

Because the private operators’ performance did not improve and PAM Jaya continued to suffer from financial loss, in 2012 a contract renegotiation took place. In December 2012, Aetra agreed some renegotiated points, while Palyja still refuses. However, the results of the renegotiation are simply put in addendum and do not change anything inside the cooperation agreement. The cooperation agreement, the source of the problems, remains intact.

One of the problems posed by the cooperation agreement is the emphasis on private operators’ business profit. Payment mechanism from PAM Jaya to the private operators adopted in the cooperation agreement is called “water charge”. The tricky part is that water charge is not related to water tariff. Article 28.1 point e states that the initial water charge as of April 1, 2001 is Rp2,400, and will be adjusted every six months.

The water charge that can liberally be raised apart from the water tariff policy guarantees private operators to earn business profit. As for PAM Jaya, water charge increase that is not followed by water tariff increase leads to shortfall. This had made the government to issue a policy that enabled the water tariff to be adjusted automatically every six months, effective from July 23, 2004 to 2007. Not surprisingly, Jakarta water tariff becomes the highest compared to that of other big cities.

The revenue from water tariff is divided in accordance with Article 28. PAM Jaya’s revenue includes monthly costs, payment of debts to the Ministry of Finance, the Regulatory Body’s costs, and the share of revenue for Jakarta provincial government. However, this provision does not by itself provide benefits for PAM Jaya because if the entire revenue cannot cover the private operators’ water charge, PAM Jaya has to bear a shortfall, or the difference between the water tariff and water charge.

2.2.1. Cooperation Agreement and Private Operators’ Performance

The purpose of involving private sector in water services is mentioned in Minister of Home Affairs’ Instruction No. 21/1996 which is to improve water services. The cooperation
agreement also mentions the purpose of the cooperation, as stated in point 2.2, among which are to develop water infrastructure, improve water services distribution, ensure the quantity, quality, and continuity of water services, and reduce the water loss level.

However, ironically, the cooperation agreement gives much leeway to the private operators in terms of performance targets. It is stated in clause 20 for Technical Target and clause 21 for Service Standards. The regulation on performance targets, which are important for the public, is created in such a way that the private operators can easily evade them. Clause 20 point a, for instance, states that the technical target may be amended from time to time in accordance with the Financial Projections. Just like this clause, service standards can also be changed from time to time.

The quality of water services, which is highly dependent on the technical targets and service standards, is increasingly difficult to improve because the cooperation agreement provides the flexibility to adjust the targets. Private operators can propose a target adjustment if there is a problem of raw water supply (Clause 11 page 64 cooperation agreement with Palyja). Technical targets and service standards can also be lowered if PAM Jaya fails to shut down the residents’ groundwater wells in the area covered by private operators’ services (clause 12 points c), as well as other situations that can make performance targets adjusted.

The cooperation agreement’s leniencies to the private partners’ performance targets have made water services hard to improve, and in turn victimized the customers. It gets worse because the private operators keep failing to reach the target even after the performance targets have been lowered from time to time.

It can be seen from an evaluation of water services performance by Jakarta Water Regulatory Body (JWRB). JWRB is an institution founded for facilitating the cooperation agreement between the public water utility with private operators. One of its main tasks is to evaluate the performance of piped water services in Jakarta. In 2008, it publishes the first accessible evaluation of the ten years of Jakarta water privatization. After this evaluation, unfortunately, the private operators’ performance has been hardly disclosed to the public.

According to JWRB (Lanti et al 2008), the private operators had failed to meet several targets. The private operators failed significantly in service coverage ratio, which is the service coverage compared to the population. Two operators were only able to improve the service coverage ratio to 62.21% from the target of 74.55% stated in the cooperation agreement. Not only did the number fail to meet the target, JWRB also believes that it is unrealistic due to obsolete parameters the private operators use. According to JWRB, the more realistic coverage ratio would be 42.92% (Lanti et al, 2008: 126). It means more than half of the population doesn’t have access to piped water services.

The most current data on service coverage ratio is provided by Perpamsi (drinking water utility association), while the private operators do not display their service coverage ratio among the achievements they endorse on their websites. According to Perpamsi, both operators’ service coverage ratio in 2010 is still in the level of 63.93% for Palyja and 65% for Aetra.
The leakage, or Non Revenue Water (NRW), is as high as 41.8%, far from the target mentioned in the cooperation agreement, which is 30%. According to the regulation of Interior Minister 47/1999, the maximum NRW is 20%.

2.2.2. Strong Business Interest

The provision in the cooperation agreement that protects the private operators’ business interests can be found in clause 27 on Financial Projections. Financial Projections determine the price of water charge. Private operators are guaranteed to get business profit because any uncontrolled factors are included in the calculation of water charge, such as inflation and exchange rate and interest rate fluctuations.

Normally in a business, companies have to pay certain amount of money for hedging to anticipate exchange rate risks. In this case however, the private operators are not only freed from risks but also can gain advantages over exchange rate fluctuations. Likewise, if there are changes in tax rates, the water charge is adjusted by taking into account any loss suffered or profits earned by the private operators (clause 38.5).

In addition, in the event of an emergency that requires particular measures (e.g. in case of drought and residents need water supply), all costs and expenses incurred by the private operators are recognized as PAM Jaya’s debts to private operators (clause 36.2).

The cooperation agreement even further guarantees private operators to earn a profit by 22% return through the provision of the Internal Rate of Return (IRR) in Clause 27.1. The IRR is obviously too high, especially when it is compared to the recommendation from the Financial and Development Supervisory Agency (BPKP) that the reasonable IRR for water services in Jakarta is 14.68%.

Although the cooperation agreement has caused numerous problems, terminating the cooperation agreement before its expiry date will cause PAM Jaya to pay a large amount of penalty (Clauses 41, 42, and 43). Whether the termination takes place due to force majeure, termination by itself, unilateral termination by PAM Jaya, unilateral termination by private operators, or termination through share repurchase, PAM Jaya will pay the costs.

This is a cooperation agreement that gives the private operators a guarantee of maximum profit at minimum business risks. On the other hand, PAM Jaya, and in turn the public, should bear the massive loss while receiving poor water services.

2.3. Impacts of Privatization

Water not running from the tap is a frequent problem experienced by residents of Jakarta. In 2013 alone, Jakarta water utility PAM Jaya noted that there are nearly 40 thousand complaints regarding tap water deficiency. In a city with dense population and limited clean water sources, troubled tap water is certainly a serious problem.
This high amount of tap water outage cases happen after fifteen years of Jakarta water privatization, and only one of numerous other problems. In 1998 PAM Jaya started a concession with two private operators, which are currently Palyja and Aetra. The reason for the privatization, which now becomes an irony, is to improve water services.

In fact, privatization of water services in most cases ends up in failure. Some of the reasons are because it makes water tariff high; lacks inclination to give the poor access to clean water; profit-oriented; lacks accountability; lacks inclination to develop pipe network that is costly; financing costs more; jobs reduction for efficiency that actually risks the quality of service; the pressure from foreign debts; and once the water is privatized, it will be very difficult to terminate despite all the failures. 18

2.3.1. High Water Tariff

During the privatization, water tariff has increased for ten times. At the beginning of the concession, the average water tariff in Jakarta is Rp1,700/m3, and then it continued to increase, which four of them occurred only from 2004 to 2007 through Automatic Tariff Adjustment policy. The government had to issue the policy because the private operators keep pushing series of increases in water charge. The government did not proceed with the policy because it considered the water tariff had already been high while the private operators’ performance was below the target from time to time.

Currently, the average water tariff in Jakarta is Rp7,020/m3, which is much higher compared to that of other big cities in Indonesia.

Table 1: Comparison of average water tariff in several big cities (2012)

<table>
<thead>
<tr>
<th>City</th>
<th>Tariff (per m3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Jakarta</td>
<td>Rp7,020</td>
</tr>
<tr>
<td>2 Surabaya</td>
<td>Rp2,600</td>
</tr>
<tr>
<td>3 Medan</td>
<td>Rp2,294</td>
</tr>
<tr>
<td>4 Bekasi</td>
<td>Rp2,300</td>
</tr>
<tr>
<td>5 Makassar</td>
<td>Rp2,000</td>
</tr>
<tr>
<td>6 Semarang</td>
<td>Rp2,600</td>
</tr>
</tbody>
</table>

Source: (1), (2), (4) TribunNews (31/01/2012); (3) Bisnis Indonesia (24/09/2012); (5) Department of Public Works; (6) Okezone (10/05/2012)

The high water tariff is caused by the private operators’ demand to frequently increase the costs included in water charge. In 2009, the Supreme Audit Agency (BPK) found that the private operators are inefficient in arranging the costs. In Palyja, for example, there are cost components for school fee for children, personal travel, rent house and flood insurance, and a number of other unreasonable fees for expatriate personnel, which are not related with
water services. It costs up to Rp3.9 billion. Such costs are to be borne by PAM Jaya, and in turn the customers, who have to endure poor water services from the private operators.

2.3.2. Bad Performance

Customers’ complain about the water outage is the impact of the private operators’ performance which continually fail to reach the target. One important target is service coverage area as much as 66.37%, but the private operators are only able to reach 59.01%. In other words, about half population of Jakarta do not have access to drinking water services. Their Unaccounted for Water (UfW) level is 44 percent, higher than the average level of other drinking water companies nationally, which is 31 percent. The higher the UfW level, the more inefficient the water services are.

Customers receive poor water services. The most common case is water outage that can happen for hours and even days. Especially in areas whose majority residents are low-income groups in north Jakarta, residents have to buy water in jerry cans at a much higher price than the utility’s water tariff. To use the jerry cans water, residents have to spend about Rp15,000/day, which is very expensive for those people who have daily income of less than Rp30,000.

The poor water services occur because the private operators only attempt to pursue business profit without inclination to reinvest the profit to improve services.

2.3.3. Privatization Causes Losses

Privatization makes PAM Jaya suffer massive financial losses. In 2011, when President Director of PAM Jaya proposed contract renegotiation, PAM Jaya’s financial loss was revealed to include Rp610 billion of accumulated shortfall, Rp530 billion of arrears, minus Rp985.7 billion of equity, and a decrease of assets from Rp1.49 trillion before the privatization to now became Rp204.46 billion. Due to a letter of support issued by the provincial government of Jakarta, PAM Jaya’s losses will be assumed by the state. According to the president director of PAM Jaya, if the cooperation agreement is continued until the end of its term, PAM Jaya is estimated to accumulate financial losses as much as Rp18.2 trillion.

Those losses indicate that the privatization is designed to ensure the private operators’ business profit, while the high costs have to be borne by the state, PAM Jaya, and customers.

2.3.4. Prone to Corruption

One of the characteristics of privatization is a lack of transparency and accountability. Even the most important document, namely the cooperation agreement between PAM Jaya and the private operator, was never disclosed to the public until 2013 when the provincial
government of Jakarta began to consider terminating the cooperation with the private operators. It was not disclosed even though it affects the water supply for millions of people in Jakarta.

Not surprisingly, the cases of corruption emerge. In January 2012 the Coalition of Jakarta Residents Opposed to Water Privatization (KMMSAJ) reported alleged corruption case that involves PAM Jaya and the two private operators to the Corruption Eradication Commission (KPK). This corruption case, currently being investigated by KPK, allegedly involves Rp561 billion\textsuperscript{24} of money. Tempo Magazine, which investigated the case, found a link between this corruption case with Jakarta governor election in 2012.\textsuperscript{25}

Privatization of water services in Jakarta began with the New Order’s corrupt politics. But even when the regime has now long gone, the corrupt atmosphere in the water privatization persists.

3. Overcoming the Problems

The main purpose of privatization of water services in Jakarta, as stated in the title of the cooperation agreement with private operators, is to improve water services. Private operators are given a sole right to deliver water services with high expectations that they have expertise, funds, and other resources to improve water services. However, after more than fifteen years of privatization, Jakarta water services are still far from satisfactory.

In sharp contrast to Jakarta water services, a number of water utilities in Indonesia that are still managed by the public, in the sense that they still belong to the government and do not involve private sector in service delivery, recorded a performance that far better than the water services in Jakarta. It shows that in water services, the management of the public is proved better and more efficient than the private ones. Bringing back water services to public management will be the best solution for Jakarta.

Water services in cities such as Surabaya, Palembang, Banjarmasin, Medan, and Malang, which are fully managed by the public, show good performance and at the same time with lower water tariff.
Table 2: Comparison of water utilities performance in several cities

<table>
<thead>
<tr>
<th>Water Utilities</th>
<th>Average water tariff</th>
<th>Leakage Level (%)</th>
<th>Service Coverage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Surabaya</td>
<td>2,800</td>
<td>34</td>
<td>87</td>
</tr>
<tr>
<td>2 Palembang</td>
<td>3,800</td>
<td>30</td>
<td>93</td>
</tr>
<tr>
<td>3 Banjarmasin</td>
<td>4,120</td>
<td>26</td>
<td>Nearly 100</td>
</tr>
<tr>
<td>4 Medan</td>
<td>2,300</td>
<td>27</td>
<td>69</td>
</tr>
<tr>
<td>5 Malang</td>
<td>4,000</td>
<td>30</td>
<td>84</td>
</tr>
<tr>
<td>6 Jakarta</td>
<td>7,800</td>
<td>45</td>
<td>46</td>
</tr>
</tbody>
</table>

The closest comparison to Jakarta is Surabaya. Surabaya is the second largest city in Indonesia, with characteristics quite similar to Jakarta: dense population, high economic activity, and wide service area, which means the demand for clean water is high. However, while Jakarta’s service coverage ratio is only 46%, Surabaya’s water utility can reach twice as much, which is 87 percent.

Service coverage ratio is the ratio of the number of connections by the number of population. It is one of the important indicators that show how a water utility can expand within its service area in a municipality. With 46% of service coverage ratio, it means that water services in Jakarta can only reach less than half of the population.

In 2013, Surabaya water utility was awarded by Indonesian Water Supply Association (Perpamsi)\textsuperscript{26} as the best water utility in the category of water utilities over 200,000 connections, which should also be the category for private water operators in Jakarta. Last year, Surabaya water utility’s service coverage ratio even increased to 90 percent.\textsuperscript{27}

With such good performance, average water tariffs in Surabaya is only Rp2,800/m\textsuperscript{3}, very much lower compared to Jakarta, which is Rp7,800/m\textsuperscript{3}. Jakarta and Surabaya’s living cost only differ as much as 20%,\textsuperscript{28} but the fact that Surabaya’s average water tariff is 65% lower indicates that the water tariff in Jakarta is overpriced. Even with such high tariff, Jakarta water utility is still suffering from financial shortfall that in 2011 alone amounted Rp610 billion, and will continue to increase as the private operators continue to demand a higher water charge.

In terms of service coverage ratio, Banjarmasin water utility is far superior to other water utilities as it reaches nearly 100 percent. In addition, its leakage level is only 26 percent. The leakage level, or Unaccounted for Water (UfW), does not only affect the quantity of water received by the customer, but also the efficiency of production. The lower the leakage level is, the more efficient the water utility is, and it means the better performance.

In Jakarta, the private water operators keep proposing target reduction in leakage level (which means to increase the number of percentage), which in 2013 became as high as 38.68 per cent, yet they still fail to meet it.\textsuperscript{29}
Overall, the table shows that in comparison with five other water utilities, which are managed by the public, the performance of privatized Jakarta water utility is the worst. Jakarta water utility has the lowest service coverage ratio and the highest leakage level. With such poor performance, Jakarta applies the highest water tariff.

This is concrete evidence that the management of public water services is superior to that of private management. Poor performance yet high tariff is the characteristic of services delivered by the private. Private operators are inherently profit-oriented. It is not surprising that they prioritize more on business profit (can be seen from the expensive water tariff) and barely committed to provide a good service for the public.

The data in the table provides a simple fact: privatization has failed, and the public water service is superior to the private. There is no reason for Jakarta to defend its privatized water services.

3.1. Options for Remunicipalisation

Stakeholders concerned with water services in Jakarta have seemed to agree that continuing the cooperation agreement with the current private operators is no longer an option, even though each has different opinion on the post-privatization agenda. The government promotes share repurchase through PT Jakpro as a kind of remunicipalisation. However, this maneuver is actually no more than a re-privatization. Jakpro, even though currently owned by the provincial government, is going to go public in 2015. In addition, Jakpro will continue the contract agreement of the previous private operators.

The real remunicipalisation is by bringing back the water services to PAM Jaya. PAM Jaya is the utility that has the mandate to deliver water services, as well as the competence and experience. Below is the further comparison of handing over water services to PAM Jaya and to Jakpro.

Table 3: Comparison of water services management by PAM Jaya and Jakpro

<table>
<thead>
<tr>
<th>PAM Jaya</th>
<th>Jakpro</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAM Jaya has already had legal basis in delivering water services, namely Law 7/2004 on Water Resources, Government Regulation 16/2005 on Drinking Water Supply System, and Regional Regulation 11/1993 and 13/1992, and Constitutional Court’s interpretation of Article 5 Water Resources Law.</td>
<td>Jakpro does not have legal basis in delivering water services, it will need a long process to start working.</td>
</tr>
<tr>
<td>As a state owned company, PAM Jaya is established to provide drinking water supply for the sake of the community’s welfare, improving the public budget’s income, and participated in developing local economy.</td>
<td>The nature of Jakpro establishment is for real estate business, it does not have capacity (whether legally or de facto) in running water services.</td>
</tr>
<tr>
<td>Privatization contract agreement, that has been causing problems, will be terminated.</td>
<td>Privatization contract will continue, and will most likely exceed its expiry (in 2022) in order to cover the costs of share repurchase.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>The government has full control over water services, realizing the water sovereignty.</td>
<td>The government has only little control as Pembangunan Jaya (which together with Jakpro is supposed to take over the water services) is listed in stock exchange. In 2015 Jakpro will also go public. The control is in the investors’ hands.</td>
</tr>
<tr>
<td>As a state owned company, PAM Jaya potentially contributes the highest income among other state owned companies of Jakarta.</td>
<td>Whether to give income for the public budget or not is the investors’ decision.</td>
</tr>
<tr>
<td>According to Constitutional Court’s decision on Law 7/2004, water utilities (including PAM Jaya) should be functioned as the state operational unit in realizing the state’s responsibility not as a profit oriented company.</td>
<td>Profit oriented business.</td>
</tr>
<tr>
<td>PAM Jaya has experienced team in water supply provision.</td>
<td>Takes time to adapt in new skill and technology of water services management.</td>
</tr>
<tr>
<td>Will not need any management modifications in delivering water services.</td>
<td>Will need management modifications in every level.</td>
</tr>
<tr>
<td>Workers condition is improved through costs efficiency and financial improvement, and because there will not be management duality.</td>
<td>There will not be any improvement of workers because it will still use the current system.</td>
</tr>
<tr>
<td>Lower takeover cost, namely 1) through regulation change Rp892 billion 2) share repurchase: a. Rp2.6 trillion (clause 42.6.c) b. 1.9 trillion (clause 42.6.d).</td>
<td>Costly takeover, up to Rp3.125 trillion, and will still cost more for establishing legal basis, company restructure, and workers transfer.</td>
</tr>
<tr>
<td>Affordable water tariff because it will be based on real production costs.</td>
<td>Overpriced water tariff because the nature of private operators are profit-oriented.</td>
</tr>
<tr>
<td>Low cost financing facility is available to water utilities in Indonesia. As a public institution, PAM Jaya also has access to low cost financing from international financial institutions.</td>
<td>Expensive financing.</td>
</tr>
</tbody>
</table>

The comparison above shows that the government’s plan to take over water through Jakpro is hardly a genuine political will to restructure water services for the sake of the public’s interest. To avoid the same mistake that has occurred since 1998, the government needs to take the most realistic solution: water services should be brought back to PAM Jaya. In executing this measure, some available options are:

1. Buying options (as regulated in clause 42.6.c of the Cooperation Agreement between PAM Jaya and Palyja), with legal consequence of PAM Jaya to pay compensation of Rp3.136.703.000.000. Advantage: corresponding with fair business principals so that
Indonesian business image is well-preserved, observing the law (obeying the cooperation contract and regulations related with water management in Indonesia).

2. According to Cooperation Agreement clause 49.3 which regulates termination of cooperation by regulation changes, the governor can issue a Governor Decree which declares that the cooperation between PAM Jaya and private operators is terminated. The legal consequence of this measure is the provincial government of Jakarta to pay a compensation of Rp892.000.000.000. Advantage: the image of the Governor being firm, observing the regulations, and with lower compensation compared to the first option.

3. Citizen Law Suit option. Disadvantage: takes a considerable time. Advantage: lower compensation compared to the first and second option. Citizen Lawsuit also functions as a pressure for the other options.

4. Water Services Work Plan

With such inadequate water services, Jakarta needs to work on major improvements. The **short term** strategy to improve water services is:

1. Terminating the privatization of water services.
2. Providing potable tap water in public spaces such as schools, mosques and churches, parks, especially in North Jakarta and West Jakarta.
3. Providing potable tap water in housing area in West Jakarta and North Jakarta.
4. Public relation program in order to improve the image of water management in Jakarta for national and international public.

The **medium term** strategy:

1. Building new water treatment plants in several locations in Jakarta.
2. Expanding potable tap water in government’s housings.
3. Providing drinking water for poor population in Jakarta.
4. Managing water availability especially in dry season.
5. Reducing groundwater extraction by migrating groundwater users to piped water services.

In order to carry out the plans, PAM Jaya needs to be reformed to be a strong and capable water utility. The reform time frame will be:

1. 2014
   a. Organizational restructuring
   b. Human resources development and asset management
   c. Preparation for services and information system transfer
   d. Preparation for providing potable tap water in public spaces
   e. Intensification of contract renegotiation with Aetra
   f. Preparation for bringing back the right of drinking water management in Jakarta to PAM Jaya.
g. Preparation for investment scheme in order to develop water services

2. 2015-2017
   a. Preparation and development of human resources
   b. Improvement of drinking water services
   c. Implementation of services and information system
   d. Expanding the tap water services zone
   e. Conclusion of drinking water management right of operation
   f. Implementation of investment in order to develop drinking water services
   g. Developing PAM Jaya’s business

3. 2018-2022
   a. Improvement of quality and drinking water services coverage
   b. Improvement of service and information system
   c. Expansion of potable tap water zone
   d. Implementation of investment in order to develop drinking water services
   e. Development of PAM Jaya’s business in order to optimize PAM Jaya’s assets.

5. Financial Aspect of the Water Services Takeover

5.1. Costs

Table 4: Costs of water services takeover (in billion rupiah)

<table>
<thead>
<tr>
<th>COMPENSATION COSTS</th>
<th>PALYJA</th>
<th>AETRA</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPV Earnings before tax and inventory</td>
<td>1,452</td>
<td>1,301</td>
<td>2,753.1</td>
</tr>
<tr>
<td>Book value of asset and Intangible asset</td>
<td>795.6</td>
<td>855</td>
<td>1,649.6</td>
</tr>
<tr>
<td>TERMINATION COST</td>
<td>2,247</td>
<td>2,156</td>
<td>4,403</td>
</tr>
<tr>
<td>Shortfall</td>
<td>333</td>
<td>283</td>
<td>616</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2,581</td>
<td>2,438</td>
<td>5,019</td>
</tr>
</tbody>
</table>

5.2. Funding Sources

Funding sources for taking over the water services from the private operators can be collected from:

   a. Loan from commercial bank with equal payment of the principal system.
b. Rp1 trillion from government capital assistance for negative equity, and Rp2 trillion with 10 years tenor and 10% of interest.

c. The funding sources can be also from PAM Jaya:
   • Business profit of Rp200 billion/year
   • Loan payments for the World Bank that will end in 2016, which installment is Rp160 billion/year.
   • Know how fee that is no longer paid for the private operators as much as Rp20 billion/year.
   • PAM Jaya’s operational costs as much as Rp380 billion/year.

The funds will be even higher with efficiencies once the water management is taken over from the private operators:

Table 5: Efficiencies from terminating the privatization (in billion rupiah)

<table>
<thead>
<tr>
<th>EFFICIENCY ASPECTS</th>
<th>PALYJA</th>
<th>AETRA</th>
<th>TOTAL</th>
<th>PAM JAYA-REV</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key management compensation</td>
<td>11.3</td>
<td>10</td>
<td>21.3</td>
<td>9.4</td>
<td>11.9</td>
</tr>
<tr>
<td>Workers salary</td>
<td>211</td>
<td>183</td>
<td>394</td>
<td>350</td>
<td>44</td>
</tr>
<tr>
<td>Insurance</td>
<td>5.3</td>
<td>22.8</td>
<td>28</td>
<td>350</td>
<td>44</td>
</tr>
<tr>
<td>Travel and Rent</td>
<td>10.7</td>
<td>17.9</td>
<td>28.6</td>
<td>12</td>
<td>16.6</td>
</tr>
<tr>
<td>Professional services</td>
<td>6.5</td>
<td>16.6</td>
<td>23</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>Technical assistance and capacity building</td>
<td>37.2</td>
<td>28.5</td>
<td>65.7</td>
<td>3</td>
<td>62.7</td>
</tr>
<tr>
<td>Representation, reception, advertising</td>
<td>3.2</td>
<td>4.3</td>
<td>7.5</td>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td>Total</td>
<td>285</td>
<td>283</td>
<td>568</td>
<td>397</td>
<td>171</td>
</tr>
</tbody>
</table>
6. Conclusion

Privatization of water services in Jakarta has caused problems while the performance has not been improving. Water outage is too common a problem in Jakarta, half of population does not have access to clean water, and leakage level which is higher than the national average. With such poor performance, Jakarta water tariff has been increased ten times since the beginning of privatization, making it the highest among other big cities’ water tariff. Privatization has caused huge financial loss to PAM Jaya, which also means loss to public money. Terminating the privatization is the only realistic option for Jakarta.

However, the decision should be taken carefully. The scheme offered by the government, which is taking over the water services through Jakpro, does not actually represent the interest of the public mainly because privatization system will be continued. Privatization contract should be terminated and the water to be brought back to PAM Jaya. This is not a theoretical assumption, because in Indonesia, public water utilities have been proven to have reliable performance. While being careful, the government should move fast because the need to water cannot wait.

ENDNOTES

1 http://www.un.org/waterforlifedecade/human_right_to_water.shtml
2 http://jakarta.bps.go.id/index.php?bWVudT0yMzA0JnBhZ2U9ZGF0YSZzdWI9MDQmaWQ9MTE=
3 Including clean water needs of commuters and industries.
5 http://www.who.int/gho/urban_health/determinants/safe_water_text/en/
6 Wijanto Hadipuro dan Nila Ardhianie, Amandemen Kontrak Konsesi Air Jakarta (Semarang: Amrta Institute for Water Literacy. 2007) h. 1.
8 Perpamsi, 2010, Palyja 63.93%, Aetra 65%.
9 Lanti, Op.Cit., h. 127
11 http://www.tribunnews.com/metropolitan/2012/06/28/faisal-berharap-pengelolaan-air-bersih-kembali-ke-warga
12 http://www.ylki.or.id/tantangan-pengelolaan-air-di-kota.html
13 40% of groundwater availability.
15 http://www.tempo.co/read/news/2014/06/02/231581732/Ahok-Marah-marahSaat-Ditanya-Kasus-PAM-Jaya
19 Laporan Hasil Pemeriksaan atas Pendapatan dan Biaya (Operasional dan Non-Operasional) Tahun Buku 2007 dan 2008 pada PAM Jaya

http://www.tribunnews.com/metropolitan/2012/06/28/faisal-berharap-pengelolaan-air-bersih-kembali-ke-warga


Tempo Magazine 14-20 Juli 2014, hal. 67.

http://perpamsi.or.id/news_detail.php?id=714

http://pdam-sby.go.id/page.php?get=jumlah_pelanggan_tahunan&bhs=1


http://www.jpnn.com/read/2013/12/30/208221/Hampir-40-Ribu-Warga-Jakarta-Keluhkan-Air-Mati-