The First Ten Years of Implementation of the Jakarta Water Supply 25-Year Concession Agreement (1998-2008)

(A Draft Translation)

Achmad Lanti Firdaus Ali Agus Kretarto Riant Nugroho Andi Zulfikar

As Board Member of The Jakarta Water Supply Regulatory Body Period 2005-2008

Abbreviations

Asian Development Bank
Automatic Tariff Adjustment
Agency for Development and Financial
Capital Expenditures
Local Assembly
Water Consumer Communication Forum
Implementation of Automatic Tariff
Independent Combined Expert Team
Indonesian Corruption Watch
Internal rate of Return
Jakarta Water Supply regulatory Body
Customer Water Committee
Ministry of Finance
Ministry of Home Affairs
Ministry of Public Works
Operational Expenditures
Restated Cooperation Agreement
State/Regionally Owned Enterprise
Water Treatment Plant

TABLE OF CONTENTS

Chapter 1	Introduction	5
Chapter 2	Private Sector Participation in Provision of Basic Service, Privatization and Public - Private Partnership	10
Chapter 3	Public Private Partnership (PPP) in the Jakarta Water Supply Provision	43
Chapter 4	Jakarta Water Supply Regulatory Body	71
Chapter 5	Post RCA Service Performance	109
Chapter 6	Concluding Remarks	143

The First Ten Years of Implementation of the Jakarta Water Supply 25-Year Concession Agreement (1998-2008)

(A Draft Translation)

"This book contains valuable materials with regard the compilation of experiences in the implementation of the provision of clean piped water supply service in Jakarta under the Public Private Partnership Scheme (PPP). The PPP scheme in the water supply sector in Jakarta has been implemented since 1998, with the objective to increase the service coverage, improve efficiency, and achieve self-reliant in the management of drinking water in Jakarta....

...the book could be useful in addressing the issues and challenges in the management of drinking water supply that is comprehensive, starting from the provision of raw water supply to the management and supervision of drinking water service to the consumers. The documentation of experiences in the PPP scheme in Jakarta is expected also to become lessons-learnt for the Local Water Works Enterprises in Indonesia, particularly with respect to the effort in reducing the water losses which are already very high, service coverage which is still very low, water quality that is not yet potable and affordability that is limited."

(Djoko Kirmanto, Minister of Public Works, Republic of Indonesia)

"In the year 2015, as a capital city of the Republic of Indonesia, Jakarta is expected to become a show window in its effort to achieving the Millennium Development Goals, among others in the water supply and sanitation sector. In that year, I would expect 80% of the households in Jakarta would be served by piped water supply. For this reason, we would need a good quality of piped water service....The book prepared by the Regulatory Body could become one of references in formulating the development strategy of piped water supply, in Jakarta and also in other cities in Indonesia, today and in the future."

(Fauzi Bowo, Governor of Jakarta)

Chapter 1 Introduction

The ASEAN Community Year 2015 will be implemented. The Southeast Asia region will merge as one integrated economic community similar to the European Community. A new era where the ASEAN boundaries, politically, will not be so strong as today. In that year, Jakarta is expected to become a prominent hub of ASEAN Community, together with Singapore and Kuala Lumpur. This challenge becomes important, because if Jakarta is held back to become a prominent hub, then its position could be taken over by Bandar Seri Bagawan, Bangkok, Manila, even Johor Baru. The choice for Jakarta is only two: to be a prominent hub or the laggard.

Jakarta indeed has been planning itself as a Service City with world class. Even Jakarta will develop itself from a Metropolitan City into A World Class Megapolitan City (Sutiyoso, 2007). A vision that is very relevant and has the potential to be fulfilled by Jakarta. In order Jakarta able to reach the desired condition, it would not be an easy task. There are three big issues facing Jakarta, namely discrepancy of population growth with the city planning. Even, in many cases, the city development is ahead of the city planning, causing urban complexity, with impact on various urban activities, and further causing urban transportation problems which is most prevailing is the traffic congestion, massive flood threat, especially during the wet season, and degradation of quality of urban life.

The second big issue for Jakarta is the rapid growth of its population exceeding anticipation. Today Jakarta is estimated to have a population of about 8.7 million. The real population could reach 12 million people in the day time, because of many commuters in the surrounding areas, and it could reach some 10 million during the night.

The third issue is clean water. It is difficult to imagine a city that will become a prominent hub for ASEAN Community without the support of a reliable piped water supply system. And, this third issue becomes the theme for this book.

Clean Water, Drinking Water

In 1997, the Government realized that the provision of water supply service managed by the locally owned enterprise, i.e. PD PAM Jakarta Raya or PAM Jaya, was experiencing enormous challenges. The observation at that time was that its financial condition is not viable enough to obtaining support (loan) from the banking sector for expansion of its service on the one hand, and on the other hand there were a need for better service in term of quality and quantity, especially the service coverage. The Government at that time opted the policy to invite private sector to take over the management and operation of locally owned water enterprise as a concession for a certain period, with the expectation that the water service provision would improved quickly. A number of world institutions supported this policy, one of which was the World Bank, which was at that time promoting the policy on privatization of water companies through out the developing countries.

Thus, two largest private firms in the world were invited, namely Lyonnaisse des Eaux (now Suez Environment) from France and Thames Water International from UK. The arrival of these two firms is expected to stimulate improved water service in Jakarta, such as expected by the Government, especially the Jakarta Provincial Government.

The problem then turned out to be far from expectation, when after 10 years of cooperation (1998-2008), although the performance of the

water service experienced improvement, but it has not attained the desired objectives, at least not as written in the contract agreement.

The big question is: Why? What factors are causing this? This question raised is not to blame anyone, but to find out the strategic factors that will leverage the water service provision in Jakarta, with the view to prepare itself to facing the year 2015, to the era of ASEAN Community, and at the same time to an era where the Millennium Development Goals of the UN are achieved by all countries in the world. And, it is also to provide lessons-learned for the actors and parties concerned to undertake Public-Private Sector Participation (PPP) scheme with the Water Works Enterprises, especially the local government across Indonesia. Hence, we would begin with the fact of water service provision in Jakarta and the historical context of PPP scheme.

Jakarta Water Works

Clean water is a vital need for the people of Indonesia, far more important than merely basic need, the availability of clean water is associated with the fulfillment of human right, that is the right to live healthy life. The drinking water need for each person varies from 60 liter to 175 liter per day. Thus, as a whole if the registered population in Jakarta is 8,699,000 people, then clean water that must be supplied would total 521,976 to 1,522,430 m3/day. This does not yet include the clean water need for the commercial sector (industry, offices, hotels), which is estimated at 33% of the total need. This also does not include the need of commuters living in Bogor, Tangerang, and Depok who work in Jakarta.

This fact also showed that the clean water demand will continually increase from year to year, both from the quantity-due to population growth and the scale of economic activity that is so great, as well as

from the quality aspect-because the consumers are more critical and urban activities are more complex. In responding to this situation indeed the enhancement of capacity of related institutions will become urgent. If not so, the existing gap would become wider and certainly will hindered the economic development, caused environmental degradation-especially those of the low income group, and will have impact on the social domain, such as social unrest.

The key issues of water supply provision in Jakarta are poor water service performance, limitation of financial resources, low service coverage ratio, and very high water losses. In addition, the problem of water accessibility for the urban poor. They must pay clean water at higher price far above their total income. More so, when they must pay water through water vendor (Badan Regulator Air Minum, 2007). Given the fact that the level of public service and the condition of water infrastructure are far from adequate. In 1996 the service coverage ratio was only 41%, level of Non Revenue Water (NRW) reached around 57%. This supply side condition is clearly reflected in the performance of water service as still weak.

About 30 percent of the customers connected receive water less than 24 hour a day. Members of the community who have not connected to piped distribution network would have no choice but to use ground water. And, the fact is that ground water is not only used by the households, but also for commercial activities (hotels, restaurants, recreational areas), big businesses and industrial activity. One of the negative impacts is the occurrence of land subsidence. The fact showed that the level of land subsidence in Jakarta has reached an alarming level, at a rate of around 6 to 12 meter per year. Data from Prof. Hasanuddin Z. Abidin in 2005, the highest level of land subsidence of 12 meter in Jakarta happened in the northern part of East Jakarta and northern part of West Jakarta. Meanwhile, most of

the North Jakarta area, Central Jakarta and part of East Jakarta are areas that experienced high land subsidence up to 10 meter per year. For other areas in Jakarta it is around 6 to 8 meter per year.

With respect to water quality, unlike the condition in the developing countries, in Indonesia water that is flowing out of the tap could not be directly consumed, its must first be boiled before it is save to drink (Jensen 2005). From the perspective of energy consumption, this condition is actually far from being efficient, because the citizens of Jakarta must first boil tap water before making it fit for consumption. Even if there is no research on energy need for cooking in Jakarta, it is estimated the energy consumption needed to boil water is seemed already high.

At present, the average tariff of clean water in Jakarta is higher than other cities in Southeast Asia, among others Bangkok, Manila, Kuala Lumpur, Johor Baru, and Singapore. Compared to other cities in Indonesia, it is certainly that the tariff in Jakarta is the highest. Marked with the high water price per unit of volume, the high price is caused by inefficient process of provision, production and delivery. Such inefficiency is charged to the consumers. In the future, the challenge for improvement is becoming great among others due to the scarcity of raw water supply, which is becoming urgent (Jensen 2005). This situation is worsened by the environmental damages of raw water sources and people behaviour that is not conducive toward availability of sustainable supply of raw water.

Chapter 2

Private Sector Participation in Provision of Basic Service, Privatization and Public -Private Partnership

The supporters of privatization argue that it is of paramount important for the private sector to be involved in infrastructure and urban services development. Privatization is basically building strong relationship between the public sector domain with the resources owned by the private entities. The main benefit of privatization is to enhance efficiency. Experiences showed that many goods of basic need and public services must be obtained at high prices, including in this case the drinking water service, which is actually could be more efficient by involving the private sector (Roth 1987 in Rondinelli 2002). This privatization is viewed to benefit in promoting mobilization of private investment (Cointreau-Levine, 1994 in Lee 1997). Based on the findings in several countries in Asia, the mobilization of private investment in fact is the opportunity that are mostly prioritized by the government authorities (Lee 1997).

There are those who compared privatization with sex, a topic that is taboo to be discussed, but numerously practiced, and in the condition, proportion, and the context that are appropriate, is a matter that is proper. However, to obtain the meaning of privatization, it needs to be understood the background of thinking of the privatization itself.

Understanding: Privatization and Public-Private Partnership

Up to the present, actually there is no full agreement on the precise definition of privatization. However, tentatively privatization could be defined as a general effort to apply the mechanism of disincentive to reach efficiency of public institution by mean of applying incentive mechanism of the private sector market (Bailey 1987).

This privatization is often associated with the Public-Private Partnership approach (PPP) (Rondinelli 2002).

On the other side, privatization could be understood in the wider context, in understanding "soft" and "hard" privatization (Sanjoyo and Dwidjowijoto, 2006). The most 'soft" privatization occurs in the form when the government undertakes contracting out to outsiders, for example procuring personnel recruitment up to cleaning service. The next (hard) privatization is a privatization that takes the scheme of partnership commonly called as Private Sector Participation. In this context, there are three types of privatization, namely:

- a) Awarding limited concession, both time and/or scope of services. In this meaning the private sector only operates the infrastructure owned by State/Regionally Owned Enterprise (S/ROE), or government for specific scope and limited time.
- b) Joint Venture (JV), where the S/ROE entered into management service agreement to manage a specific business entity that is managing. This scheme is mostly used by Telkom since 1980s.
- c) BOT or Built Operate and Transfer, where the private sector builds an infrastructure from the start and then operates it, and in specific time transferred it to the government or S/ROE. This scheme for example is applied for toll road.
- d) ODT or Operate Develop and Transfer. The S/ROE awards concession to the private entity to manage its business (or part of its business), develops it, and in certain time agreed to transfers it back to S/ROE. This scheme is used for example for PAM DKI Jakarta to its two

concessionaires, Palyja and TPJ. (Sanjoyo & Dwidjowijoto), 2006

In academic understanding, the Public-Private Partnership mechanism, can be categorized as "soft privatization" approach.

The third type of "hard" privatization, that is relinquish government ownership the S/ROE to other party, both foreign private entity, private, S/ROE management, or public; through IPO or go public scheme, employee & management buy out (EMBO) to private placement or inviting strategic private investor (Sanjoyo & Dwidjowijoto, 2006).

Why Privatization and PPP scheme? Significant meaning of privatization and PPP scheme

From the government perspective, there are several factors why the government chooses to undertake privatization and cooperation with the private sector, among them are to obtain economic advantage of the existence of efficiency, improve fiscal position, encouraging private capital, and enlarging the scale and magnitude of private sector (Kirkpatrick 2002). Meanwhile from public perspective, privatization is often viewed as an idea that offers more assurance in achieving efficiency, especially in the drinking water service provision. However, in actual it is not always so, such as the experiences happening in several countries.

With respect to financial resources, privatization and PPP scheme encourage the government to effectively mobilize private and foreign capital investment for the development of infrastructure and expansion of drinking water service coverage. When the privatization and PPP mechanism are successful in attaining its objectives, then it will bring about improvement of productivity, ensuring more efficient funding resources allocation, and promoting private sector. This is relevant with the allegation that the government is viewed not to have good performance in developing infrastructure with up to date technology and improvement of service which are important components in the improvement of economic competitiveness (Rondinelli and Vastag 1998 in Rondelli 2002).

Now day, the privatization and PPP mechanism have been widely used by the local and central government in various countries to developing energy resources, expanding utility network and basic services, developing telecommunication and transportation system. development of health service, education and without exception the drinking water provision (Rondinelli 2002).

Relationship between Privatization and Public-Private Partnership (PPP)

There are a number of types of privatization commonly used in many developing countries among others are service management contract, co-ownership or co-financing of the projects, BOT mechanism, public-private partnership and financial support or incentive for service by private sector (Gentry and Fernandez 1997 in Rondinelli 2002). From this point of view it could be drawn conclusion that PPP mechanism is one of key components of the idea of privatization. As described earlier, PPP mechanism, used in the drinking water cooperation process in DKI Jakarta, is associated with the "soft" privatization approach.

PPP mechanism or even the cooperation agreement between the government and private sector in less formal arrangement than the concession also is believed able to address the increasing need of public service which is continually increasing from year to year, such

as what is happening in the countries in Latin America and Asia (Rondinelli 2002).

Theories behind the Privatization and PPP mechanism

As stated by Nugroho and Wrihatnolo (2008) the definition of privatization is believed to be derived from the neo liberalism, a theory that triggered world economic revolution in the midst 1980s; neo-liberalism. The neo-liberalism revolution denotes a shift of economic management based on supply to become demand based. Hence, according to neo-liberal community an economy with low inflation and high un-employment, is still better than high inflation with low un-employment. The government task is only to create an environment to promoting capital to freely move. In this task the government conduct policies of cutting the expenditures, cutting public costs such as subsidy, so that facilities for public welfare must be reduced. Finally, the market mechanism dominates over the public life. This becomes a basic foundation of neo-liberalism, subduing the public life into market mechanism. All public services conducted by the state should use profit-loss principle for the undertaking of the said public businesses, in this case economic profit-loss for the government.

Prasetianto (2005) stated that privatization places a wider academic discourse. According to Prasetianto, in the academic discourse, the phenomena of SOE privatization actually has been protected by adequate "umbrella" theory. Several arguments supporting privatization of SOE are based on the theoretical root of the failure of the government in managing the economy, property right theory, principal-agent relationship, and incentive issues. The followings are the three most classical theories, reviewed by Prasetianto (2005), as the essence and important meaning of privatization.

Firstly, monopolistic theory. Simply, it is said that SOEs in many cases often received monopolistic privileges. As a consequence, they are often stumble to become not efficient because of the special privilege. Also, the same with SOE. Secondly, property rights theory. In essence, the private company is owned by individual persons, who are free to use, manage, and utilizing its own assets. As a consequence, they will rigorously undertake its business at full steam in order to be efficient. Private property rights has created an incentive for the realization of an efficient company. On the other hand, the SOEs are not owned by individual person, but owned by the state. In reality, the meaning of "state" becomes vague and not clear. Hence, SOEs seemed in fact like "without owner". The implication is then clear, the SOE management becomes short of incentive to promoting efficiency.

The studies in many countries universally concluded that private company efficiency is better then SOE. In the case of Indonesia, I Ketut Mardjana (1995) also has the same conclusion. Private companies in the transportation sector (bus) in Jakarta and five star hotels in Nusa Dua Bali, in the study by Mardjana, proved to outrival SOEs engages in the same business. Yet, it could not be generalized that all SOEs are less competitive compared to the private sector. SOE engaged in cement production, for example, proved to have better performance compared to private firm. Whereas, in the banking sector, both SOEs as well as private owned banks, bgether went bankrupt at the time of crisis, and they must be re-capitalized.

Thirdly, principal-agent theory. In this theory it is revealed how the relation map between principal (company owner, in this case SOE/ROE is the government) and agent (company, i.e. SOE/ROE). In the private sector, the company management (as an agent) clearly concedes and loyal to the owner or shareholders. Whereas, in SOE/ROE, to be loyal

to whom? In this situation, the political atmosphere becomes "thick", because numerous political interests took active part, which at the end to cause the SOE being exploited by politicians. The managers of SOE are forced to "serve" the politicians, resulting in disturbing the SOE's mission toward efficiency.

Besides, the economic theory, in the political discourse, privatization is supported as an effort to undertake redistribution of power. Through privatization a former SOE could be owned by the public at large through stock exchange. The process of wide scale ownership in the public sector also is viewed as an effort to democratize the economy.

The understanding on privatization also needs to be straightened. The classical understanding on privatization is the transfer of government ownership to government/state enterprise including local enterprise. Privatization generally only understood narrowly, that is denationalization, which is basically means selling of state owned company assets or shares to the private sector. This definition whatsoever is not complete because it has not explained which assets and shares of the state-owned company that must be sold to the private sector. Actually it is more appropriate to define denationalization as selling mechanism of 51% of government shares (or more) to the private sector. Full scale denationalization means all of the shares or assets owned by the government in the SOE must be sold to the private sector.

Basically, there are major benefits why people need to carry out denationalization: first, to attain higher efficiency and second, with respect to expanding private ownership (Bos 1986). Efficiency is attained through competitive mechanism generated by denationalization. A competitive market will yield productive efficiency and allocative efficiency. The later means economic resources could be allocated on the production process and service on those that are most effective (at least to give added value). With respect to the productive efficiency, competitive mechanism will promote the company to produce its outputs with minimum cost as possible. This is important to be carried out by the SOE because most of them are identical to monopoly and lack of entrepreneurial incentive for the SOE. Even if the SOE could gain profit from the production process that is more efficient and reducing production costs, however, whatsoever there are no competitive pressures to encourage implementing it.

Privatization for the ROEs as SOE- is a must, because in fact restructuring alone is not sufficient to change ROEs becoming a transparent, accountable, responsive, fair, and independent company. Only that, ROEs need to understand what privatization is most suitable, and communicated openly to the public, because whatsoever, ROEs are local asset (Sanjoyo & Dwidjowijoto, 2006).

To address the low quality of management and performance of S/ROEs, privatization is not the only solution. Up-to-date strategy adopted is reinvention strategy with the scheme called "RPP", that is restructuring, profit making, privatization (Abena, 2000: Dwidjowijoto, 2005; Sanjoyo & Dwidjowijoto, 2006). Restructuring is meant as an effort to improve competitive position and bargaining power for a company through sharpening of core business, improvement of business scale and creation of core competence. Profit making, that is effort of increasing the company aggressively to attain company profitability and value that is optimum. Whereas, privatization is the improvement of company activities in opening the opportunity for public ownership, national private and foreign

company, to facilitate company access to financing sources, technology, modern management and international market.

The ROE reinvention program aims to making the ROE as a company that have competitive edge and high innovation, expected to be competitive in the global arena. Beside the above objective ROE reinvention is also aimed to (1) improve local economy through enhancement of local revenue structure; (2) catching up with lagging company competitiveness; and (3) improve social welfare. To attain the objective of ROE reinvention, restructuring the management, ROE environment, company culture of ROE would be required. Hence, the pattern of reinvention of ROE could be described in the following diagram.



Figure 1

With the understanding, that ROE reinvention starts from restructuring the ROE with preliminary objective is to seek maximum profit or profit making. After it is carried out, the ROE could be privatized or still as ROE. The ROE then could also be disinvested, meaning the government becomes a minority shareholder, or not having any shares at all. However, all of these is to attain one objective to become a healthy, professional, and self-reliant corporate, that is able to contribute value to its owner and users (Sanjoyo & Dwidjojoto, 2006).

However, there are quite many developing countries that chose "the short cut way" to privatize its S/ROEs that are not healthy rather than first reorganizing them to become healthy company, so that when privatization is implemented, they would be in a healthy and balanced cooperation condition, and not in the position where S/ROEs are weak, and the private sector in stronger position. In the context like this, privatization could mean giving an empty check to the private sector to manage the undertaking which was previously controlled by the state.

The pressure to privatize ROEs also was not incited by academic discourse, but by the private sector, that is with adoption of Washington Consensus in 1993 (Dwidjowijoto & Hanurita, 2005). In 1989, Prof. Williamson, an economist at the Institute of International Economics, Washington, D.C., offered the concept that every developing countries requesting for loan from IMF and the World Bank should comply with the requirements, namely to undertake:

- Price decontrol, i.e. eliminating control over commodity price, production factors, and currency;
- Fiscal discipline, i.e. reducing government budget deficit or central bank to the level that could be financed without using inflatory financing;
- Public expenditure priorities, i.e. reducing government expenditures and shifting expenditure from the sectors that are politically sensitive, such as government administration,

defense, not well subsidized, and various lavishly infrastructure spending, public primary health, and education;

- Tax reform, i.e. expanding tax base, improving tax administration, refining the incentive for tax payers, alleviating tax evasion and manipulation of tax regulation, and imposing tax on assets invested abroad;
- Financial liberalization, i.e. that the short term objectives are to provide special bank interest rate for special loans and applying nominal interest rate higher than inflation rate. Long term objectives are to create bank interest rate based on market in view to improve efficiency of capital allocation;
- Exchange rate, i.e. that to stimulate speedy export, developing countries need a single and competitive exchange rate value;
- Trade liberalization, i.e. that foreign protection through quotas must be replaced by protection through tariff, and progressively reducing tariff to attain lower and uniform level;
- Domestic saving, i.e. enforcement fiscal discipline, reduction of government spending, tax reform, and financial liberalization, so that state resources could be allocated to private sectors having high productivity, where level of saving is high. Neo-classical growth stresses the importance of saving and formation of capital for rapid economic development;
- Foreign direct investment, i.e. elimination of barriers on entry of foreign firms. Foreign companies should be allowed to compete with the national companies in an equal footing, no favor;
- Privatization, i.e. divestiture of state enterprise.
- Deregulation, i.e. lifting the regulations which impose barriers to new entrants and limiting competition, except if safety considerations or environmental protection requires it;

• Property rights, .i.e. the existing legal system must be able to guarantee protection of ownership right, capital, and building.

Reinvention of Government Role

In connection to the rising public aspiration and awareness in responding to the development issues which are directly affecting the quality of life. And, the increasing capability of making comparison of their economic and social condition with other people in other region – due to development of information technology and media. As a result new challenge emerged in undertaking transformation of government role: institutional reinvention for capacity development service and basic infrastructure provision must also include operational æpects (Pinto 1998).

The trend of opposing views that criticizing the advantage of private sector in developing productivity and more efficient system, now day also emerges many thinking to return to emphasizing the important role of the government, this is in line with the bigger public needs for a government that has good performance. It is a fact that in every successful story of a country, the government plays an important role for example, what is called the wonder of East Asia: Japan, South Korea, Hong Kong, also China and India, and even Malaysia and Singapore. One thing that must be underlined is that the effective and efficient economic performance (Stiglitz 2007). It needs to reinvent how the government roles and how the government implement it. Depending on the existing context of a country/nation, it should be clear that the government must play a bigger role in poverty alleviation, environmental conservation, macro economic stability, social protection and specifically in this case that is most relevant: provision of basic services (Stiglitz 2007).

Relation between the State, Market and Public

The government in many developed and developing countries at present see the importance to make fundamental changes in institutional reformation. This is among others triggered by the global transformation pressure and the increasing demand for improvement of efficiency,. The need to empower the civil society and how the government has a sufficient capacity in this aspect are also relevant with the concept of institutional reformation. In addition, the institutional reformation is also closely related with the phenomena of decreasing domination of the state in controlling the economy due to the development of political and economic liberalism ideology (Pinto 1998).

With respect to the relations between the state, market, and public, actually the debate on this ideology was divided into two main streams. First, stressing on the role of the state that is limited but strengthened, such as success case stories in several East Asia and Southeast Asia countries: South Korea, Hong Kong, Malaysia and Singapore, Second, stressing on the minimal role of the state, where companies are very market-oriented are permitted to operate loosely without any significant limitation (Pinto 1998).

However, at the end, this differencing views converged on one conclusion that calls for the role of the state with adequate capacity, that holds control on provision aspect, but tends to let go the role in its production and delivery (Pinto 1998).

This situation in fact has provided a dilemmatic situation. The latest phenomena where the role of the state is diminishing, but at the same time the need and demand for public services in fact are becoming more greater. The government that should play dominant role in the provision of public services in fact also carries heavy burden in responding to the need for better economic management, implementation of political democracy, and development of institutional resources. The condition of limited government energy, again has opened up an opportunity for the private sector to take bigger role again (Pinto 1998).

Thus, PPP mechanism as translation of partnership between the private sector and public sector becomes a central need. PPP is closely related to the better collaborative arrangement, especially to promote effective and efficient resources allocation of the private sector, especially financial resources. In addition, the collaborative arrangement also promotes capacity improvement from the supply side.

Collaboration between private sector and government should be a mutually beneficial between the two (win-win solution). Besides expecting to provide many benefits on the public sector performance, from the private sector perspective this also, clearly, could be viewed as an opportunity for business expansion which is promising. Because by selling its services to wide public, for instance a population of a city, basically is the consumers with viable profit potential which needs to be pursued. This, of course, is in line with the interest of the private sector to gain economic profit (profit seeking). The idea on the mutually beneficial is important for a long term collaboration (cooperation) and improvement of sustainable performance because it promotes a healthy synergy between the two parties (Lee 1997).

In this case, the partnership scheme between the public-private must be conducted by mean not only improving traditional format from the public service provision, but more than that: intervention and reconstruction of the service provision are a necessity. Reinvention and reconstruction are carried out by placing market principles confronting the state ideology, however how to combine the best practice and suitability between both, allowing comparative advantage be developed. The general public as users needs be fully involved in the process of reconstruction (Pinto 1998).

The policies to protect private investors are of course necessary, however, whatsoever the public decision makers must be very cautious. A number of mistakes which is often happened in the developing countries is, as the private sector continued to gain multiple profit, the government took the burden of bearing the risks which are likely to occur, including financial risks (Stiglitz 2007). If this continued, the government must bears the debt payment, and there is a possibility that it will bring about a crisis that will jeopardize not only key stakeholders but also the public at large. One of the efforts that could be undertaken is not to award long term concession. Periodical and comprehensive evaluation and monitoring are a necessity. And no less importance is the implementation of genuine transparent and accountability principles.

Other mistake which is often made by the government is issuing inconsistent policy to facilitate the private sector interest. Certainty for the investors is key in this respect. All opinions, like the soccer game, that the rule of the game could not be changed indiscreetly, when the play has started.

Thus, the role of knowledge and mastering relevant skills are of a necessity for the government institution and related regulatory body. Adequate strategic analysis is important for the formulation of public service innovation. Also, recognizing how its provider, who are the actual owner of the private companies, and how are the condition of its users (Pinto 1998). An analysis is also required to find the most effective approach that could promote improvement of the performance of the existing stakeholders. This strategic analysis must also cover contingency plan and identification of resources condition

(especially raw water resources, with respect to clean water) and ensuring that the innovation is not being carried out merely because of consideration of intending to change the format of traditional public sector (Pinto 1998).

One of the key components of reinvention is the orientation change toward result oriented change (Joedo and Nugroho 2006). The works of stakeholders need to be changed from statutory based approach to performance based approach. There is still a big question how far is the effectiveness of the regulation able to accommodate the public physical, economy, and social needs that are dynamic. There is a strong indication that the existing regulation framework, is not in harmony and in line with the pressing need for performance improvement. Hence, basic infrastructure development approach and public service improvement could not again merely refer to the existing regulation framework and instrument, however of the utmost important is to focus on the performance. The performance must become the main reference how the private entities and government work in fulfilling and serving the people/consumer need. Moreover, the short term performance must be measurable, for example, in term of km of main transmission pipe that will be installed in the area X in 1 year in the future, how many technical personnel will be trained in two years in the future and so on.

Improvement of Service Performance to the Public/Consumer

It is important to be realized how effective is a policy implemented and to what extent it can provide benefits on the improvement of quality of life of the large public. Since the population growth of Jakarta which is relatively high, and its economic-social and institutional condition in Jakarta which are very dynamic, is important in order the outcome of the provision and development of basic infrastructure could escape from the catch up development trap, which is always follow behind or even often not able to catch up with the increasing need of the people and consumers that are drastically continued to rise from year to year. With respect to the drinking water supply provision for the people and development of drinking water infrastructure, one of the key problems that needs to be resolved is the gap that is widening from year to year between the demand on the one hand and the supply of capacity on the other hand.

This public-private partnership that is more collaborative is h line with the ideal views that the provision of service and development of basic infrastructure must escape from catch up development trap.

In addition, strategic planning is very important in the process of basic infrastructure provision, including drinking water. Thus, the clean water management process in Jakarta also must use strategic planning. Strategic planning put forward comprehensive approach and basically is the framework and thinking that are oriented to performance and output. By stressing on strategic planning, the organization will have the framework that in flexible manner tailored with the existing specific issues, allowing effective the issues to be addressed effectively. addressing the issue effectively.

In general privatization policy, in which its trend has widely spread in many countries in the last decade-it is believed able to overcome shortfall in the development of infrastructure dan public service provision (Lee 1997). The successful implementation of privatization provides significant benefit to the government and also to the general public. Privatization and PPP mechanism could enhance efficiency and competitive mechanism in the drinking water supply provision, expand service coverage, and reduce delivery cost. In addition, this also strengthens the capacity from the supply side, making the public obtain its benefit. This privatization also is viewed beneficial for the sustainability of development intervention that could not be handled (carried out) by the public sector as well as the private sector separately (Rondinelli 2002). PPP is also viewed as an important element in the utilization of modern technology in a wider scale, also, in developing stronger capacity in maintenance of built drinking water infrastructure. As such, it is expected the existing capacity will be better improved considering previously cannot be implemented by the public sector, which at the end it will enhance the performance.

Financial and Economic Efficiency Issue

Public management practitioners always struggle with the question how to make redesign the role of the state and its public administration in view to meet the demand for public service which always improving significantly from time to time (Pinto 1998). Unfortunately, this demand faces financial constraint that tends to limit the role of the state rather than expanding it. Because of whatever reason, the sustainable economic financial basis is important for the development of basic service for the public.

The fact of the existence issue in the lack of financial condition and state owned business economic performance in many developing countries, make the government and its private partners could no longer again merely relying itself on the fund (financial) transfer from the central government. This clearly encourages to privatization. In addition, the view that private sector resources are more capable in managing the company, also participate in contributing to the expansion of privatization mechanism (Kirkpatrick 2002).Hence, the important meaning of PPP is closely linked to the effort to access a wider financing resources through an approach that is more innovative. And this should be appropriately undertaken intensively in the short term in the future.

The role of the private sector that is wider also has proved able to reduce government expenditure or even augmented the revenue from

the existing concession. PPP which replaces the role of government owned business entities also in fact has the potential to relieve government financial burden (Rondinelli 2002). This idea in fact is in harmony with the real fact (reality) that is happening. As an example in India, its limited source of financing has become the main reason for the importance to undertake privatization of public service (Mehta and Mehta 1992 in Lee 1997). This fact whatever is an indication of the acuteness of the issue of financing resources for the development of infrastructure.

On the other side, in the private sector perspective, privatization and PPP also are viewed both to enhancing the capacity of key stakeholders to respond market signals, so that it able to strengthen the relations with the benefits gained from the global market. With respect to the human resources, PPP is useful in accommodating recruitment of employees and human resources in more flexible way by approach oriented to performance (Rondinelli 2002).

Other benefit of privatization is to reduce the number of workers in the public sector which is certainly also will reduce the government financial burden in paying the employee salary. As it happened in Malaysia, this is an effective strategy to revitalize the economy post negative Malaysia economic growth in 1985 (Sinha 1993 in Lee 1997). As it is known that large number of government personnel does not always mean also high productivity.

Public Participation and Bottom-Up Approach

In the todaya's context the relevant question is: is the public at large opted to be heard or to be served? And what are the implications when the public is viewed as consumer rather than as citizen? (Pinto 1998).

Beside the public needs good services, however whatsoever in its relation with the social policy, they also needs to be heard (Pinto 1998). Thus, the government and related stakeholders need to have capability of communicating effectively with the public. Its terminology "to use their spectacles and to be in their shoes" to see and address various issues in the provision of drinking water supply, which truly have direct impacts of the quality of life of people.

Privatization in this context is expected to become an instrument which can integrate benefits of efficiency and transparency in the operational management of private company on one side with participative approach and bottom-up on the on the other side.

Customer survey in this context is very important as an instrument to obtaining perception on the quality and performance of service received by the customers. On the other hand, this customer survey could be a threat when in fact not related with the effort to improving the performance in the future. This survey is also important as a component which promotes bottom-up approach, in other words that the management of the organization must be adjusted by orienting to performance outcome expected by the end users. In other words, strategic standards and organization management of the provider must be based on output standard/service standard (Pinto 1998).

Water Service for the poor and low income households

Clean water whatsoever is the basic need for all, including for those who have low income and live in the poor areas, illegal settlements and slum areas. Access to clean water for the low income households is an serious issue which from time to time have no solution. It is important to underline that the policy and strategy of clean water provision must be integrated with the social equity strategy and especially poverty alleviation. It deserves great attention also that drinking water service whatsoever is a public service. Thus, its performance is not only determined by economic rate of return, but aspects of social justice and social norms must also be stressed. Through this privatization approach, it needs to promote the private sector management not to be profit seeking, but in a wider scale how the social indicators become important factors to determine the extent of the performance of the private sector in providing quality public service.

Further, there are many parties (point of views) believed that clean water must be accessed by all citizens and households in Jakarta. From this perspective the decision makers need to shift the focus not only on efficiency because this is not adequate. Moreover, mutual redistribution benefit to what extent it is adaptive toward the need of poor households in Jakarta must also become one of the main criteria in performance evaluation (assessment) (Lee 1997). In other words clean water supply provision must be integrated with the equity strategy.

In the clean water supply provision for the poor, collaboration with competence CBOs (Community Based Organizations) and NGOs become very important. Hence, networking with these institutions need to be developed from time to time, so that it able to work together on the basis of a clear role, functions, and responsibility among those stakeholders.

Transparency Principle

Good access to information, that is transparency is very important for the improvement of the public sector performance. Partnership with the private sector must be useful in encouraging the existing institutions to implement principles of transparency and accountability. Transparency refers to a fair process, open and easily accessible by the wide public. Transparency also assures that there are no "under the table dealing" and no negotiation and deals concluded under "the closed door" (under the closed door dealing). Transparency is very useful to prevent information asymmetry which could bring about bias in the decision making process for its key stakeholders. Information asymmetry that occurs between the policy makers and public at large must be immediately addressed, if not the public will continue to suffer a loss because they are not aware of their position in the present work constellation. This is related to the need for taking the optimum benefits of market economy. Such as with good information and competition are very important for the market economic performance, so is also good information, i.e. transparency and political power competitions-are very important for the improvement of the public sector performance (Stiglitz 2007).

The view that the transparency process and accountability in the private sector are more developed than in the public sector bring about hope that it is time for the public sector to adopt the principles of transparency and accountability in the daily policy process and management of the public sector. This could be realized by promoting the public sector to utilize the existing resources of the private sector, especially the human resources and knowledge with respect to the implementation of transparent and accountable financial policy.

Every public contract should be made public. The basic question: is the public works for the government? Or the government serves the public? If the government that serves the public (Stiglitz 2007) and if that is so, then it is proper for the public to exercise its right to know what has been and will be undertaken by the policy makers and their associates. It would need to take prevention measure with regard public interest not realized behind the closed door.

Thus, it is a necessity to have adequate capacity in monitoring the public contracts. More so, in the era that demands the existence of Good Corporate Governance. The public has the right to know (to be informed) what has been and will be undertaken by the regulator and its private operator partners. How are resources allocation implemented at each level? Is it sufficiently effective? How is the money used, is it sufficiently effective and reach the right target? How is the financial condition of PAM Jaya and its private partners, since up to the present the tariff charged to the consumers is based on the financial requirements of the parties. The fact that the existence of confidentiality clause in the cooperation agreement between PAM Jaya and its private partners should no longer occur. More so, all public spending should be made open by the public (Stiglitz 2007). Strengthening of civil society capacity become very important, that is empowerment of public based organization, NGO, representative of university, KPAM (Water Committee) and so on.

The public is a vital stakeholder for the process of basic infrastructure and public service development. In line with the political democratization and economic process that are increasingly developing, the public aspiration provides significant influence in the determination of policy direction, is the outcome of these policies have impact on the economic and social condition of the society.

The application of internet based information technology (IT) plays big role in the implementation of transparency principle. IT is very useful in overcoming information asymmetry (Lanti 2006) between the government officials and the public at large. Other benefit that is information could flow without bureaucratic obstacles, which are often very tedious and time consuming. The development of consistent IT also has a big impact on improvement of monitoring capacity because it will encourage feedback and critics from the public.

The media also has a big role as an alternative strategy to reach the customers. As what happened in Hyderbad India, where there were weekly publication that reports the progress made by the drinking water operator. Also there was a television program which facilitates dialogue between the operator upper management and decision maker at the Regulatory Body with the customers. Even public discussion and socialization with the public are also broadcasted directly by the television stations.

Challenges in Public Service Innovation

The key element in the innovative approach in the public service provision is not to emphasize on the public management performance improvement which later expected to have impact on the improvement of outcome, instead should the other way around: it should first focus on service outcomes which are demanded by the customers, then improvement of its organization performance (Pinto 1998). Thus, innovation that is carried out must focus on point of delivery, rather than on the daily management process of the provider. Because point of delivery could be taken as an interface that connects the provider with the customers.

Based on the above, the approach that is more accommodating the need for innovation is the approach from the demand side. As described earlier, that is the approach that stresses on consumer need side and outcome at point of delivery. The demand side approach also provides positive implication (consequence) on knowledge (capacity) improvement to know the specific needs of the consumers and the

public in general, thus appropriate participative need would be needed.

The demand side approach also identical with the role of the minimum government role in economic activities. Its consequence is more prioritizing (stressing) the public capacity in recovering consumption cost from the service provided. In this case, sustainable subsidy becomes irrelevant, even if the subsidy is still needed, it is only in the form of one off subsidy which is actually identical with capital cost. This condition promotes the existing system could provide equitable economic benefits which is paid by the consumers, so that the consumers are encourage to play bigger role in order the service could be more efficient and financially more transparent and accountable.

The public service, including also clean water supply, basically consists of three main functions, provision, production and delivery. Generally, innovations implemented are related to production and delivery aspects, and not much with its provision. Actually, several innovations could be implemented with respect to the provision, that is formulating financial allocation policy, which further determines the extent of scope of service for the customers and how the cost distribution is conducted (Pinto 1998). Innovation in the case of provision also could mean formulation of regulatory framework by the government which is fully focused on issues regarding service provision and standards, and delegating production and delivery mechanism fully to the private sector (Pinto 1998).

Conservation of Environmental Aspect

The big issue which is often occurring is sacrificing the environmental for short term commercial interest (Stiglitz 2007). In practice, the clean water supply provision in other countries, when the foreign private investors are asked to improve quality of raw water sources, they are always claimed that they have not enough capital. Of course, in actual, the capital (money) they had has already been transferred to their stakeholders.

With respect to the important meaning of privatization, besides mobilizing private sector investments, other benefit i.e. mitigation caused by negative environmental damages (degradation). This could be observed on the case of Thailand, when the Ministry of Science, Technology, and Environment stated that privatization is closely related with the government effort to save millions of Baht budget in addressing the environmental issues. This is also in fact impacted positively on the strengthening of mechanism polluter pay principle (Bangkok Post, April 5, 1995 in Lee 1997), namely mechanism used to overcome (mitigate) environmental pollution. For example, in the case of river pollution, the company which is strongly indicated polluting the river, must pay certain amount of money to clean the river to its original condition.

With respect to the provision of clean water for the people, the effort to utilize raw water sources for the clean water production whatever will have an impact on its increasing environmental cost. The environmental aspect also must be given attention, in line with the development paradigm which has developed now day on triple bottom lines that besides focusing on economic and social aspects also must put priority on environmental aspect. There is a need of sound regulation to address the balanced between economic and social aspects, and also to prevent commercialization of water against environmental quality and water resources degradation.

Early Phase of Privatization in the Asia Pacific Region

The fact that the wide spread of privatization approach in the development of basic infrastructure and public services provision in

Indonesia whatsoever is influenced from the start of the same phenomena that is developing in the surrounding areas in the Asia Pacific region.

The privatization phenomena has started to be implemented by the government in the Asia Pacific region in end of 1980s and has become a wide trend especially in early 1990s. The Malayan Government is believed as a pioneer in the Asia Pacific region in the privatization approach, and solid waste management is the first field (area) that was privatized coordinated by the Ministry of Housing and Local Government (Bartone 1993 in Lee 1997). Other example, the solid waste management also became a departure point for the Chinese Government in undertaking privatization. This was implemented by promoting the role of the private sector to make bigger investment in the solid waste management and solid waste recycling. They viewed it as of paramount importance in order these activities not longer tasked to the government. The initiator of this program in China was Deputy Minister of Construction who issued the regulation on the solid waste management in 1883 (Lee 1997).

Type of Privatization/PPP mechanism

There are several types of privatization which are normally used in many developing countries among them are service management contract, co-ownership or co-financing of the projects, BOT mechanism, informal cooperation between the government and the private sector and financial support or incentive for the service by the private sector (Gentry and Fernandez 1997 in Rondinelli 2002).

1. Forging Contract with the Private Sector

The private sector participation through contract mechanism has been widely implemented in many developing countries. Service contract or management contract in this case allows the private
sector to participate in the development of infrastructure and service (for specific time), where the government institution itself could not undertake effectively and efficiently (Rondinelli 2007).

As undertaken by the Government of Chile and Guatemala which entered contract with the private company in the production, processing, distributing and billing of clean water service (Lewis and Miller 1986 in Rondinelli 2002). Also with the Cartagena Local Government in Columbia, which provided 26-year concession in the form of operational and maintenance contract to ACUACAR, a public-private sector joint venture between the government institution and a consortium under the Aguas de Barcelona in 1995 to provide drinking water service, waste water and solid waste management to the whole city population (Rivera 1996 in Rondinelli 2002).

2. Built-Operate-Transfer (BOT) Mechanism

BOT is a relatively new approach in the infrastructure development. This approach gives possibility of direct private investment flow in the large scale projects, such as toll road, bridges, electricity generators, dam, and so on. Built-Operate-Transfer (BOT) is viewed as in line with the need for private capital injection, which has direct positive impact on the strengthening of financing capacity for an economic base that is more viable (Walker et al 1992 cited in Lee 1997).

BOT Theory could be explained as follows (TERRA 1996)

Built: A private company (or consortium) makes an agreement with the government to undertake investment in the development of infrastructure project. The company later carries out its financing activity to build the project.

Operate: The development from the private side later owns, maintains and manage the facility (for example toll road) for a specific time period agreed (for example 20 years), and recovery of their investment is done through toll tariff.

Transfer: After the concession period ends, the company then transfers its ownership and management of facility to the government or to the other relevant public authority.

The consortium normally puts in? equity in a small amount and then makes a loan from international financial institution and commercial bank by using revenue which would be obtain to make repayment (Rondinelli 2002).

BOT mechanism mainly could be used in the design, financing, development, operation and maintenance of infrastructure and facility. BOT mechanism is commonly carried out by the government in Latin America and Africa (Rondinelli 2002).

BOT is viewed by the industry, government and multilateral bank as an effective solution to financing the large scale infrastructure project, to build public infrastructure without taking a large public funding source (TERRA 1996). BOT mechanism is in line with the benefit of private sector investment in the infrastructure project in the multi-benefits in the form of additional funding and more effective system provision. By opening up the opportunity to the private sector to directly make investment in the infrastructure project means that the budget allocation for the public interest build schools, health facilities, poverty alleviation, etc will not be downgraded. At the same time when the private sector manages in accordance with the commercial norms, it is expected that efficiency also could be enhanced. In other words, public infrastructure can be built without making investment from public funding. On the other side, by promoting flow of foreign investment, BOT could also facilitates the realization of effective technology transfer, especially between the developed countries and developing countries so that it is expected positively promote growth of the local private sector more strongly.

On the other side, there is also argument that the benefits gained through BOT mechanism is more based on free market ideology rather than evidences and empirical facts in the field. Whatever the track record of BOT has not been truly proven, and up to end of 1980s this concept is still a big question. And it is a fact that up to the present there is no BOT project that has gone through the full cycle of Built-Operate-Transfer in accordance with the original plan. And, in a number of cases it was found the BOT projects that have problems due to rising cost, price projection and revenue that are realistic and legal disputes with the private company.

3. Public-Private Joint Venture

In the Joint Venture approach it allows the government to obtain shares ownership in the company that is profitable or company that has strategic political bearing, at the same time also can accommodate private investment and profit in the form of the institutional capacity improvement (Rondinelli 2002).

It can be seen from the case of Venezuela State-owned Oil Company, Petroleos de Venezuela, carried out privatization on part of its assets under its umbrella, Pequiven, by mean of undertaking Joint Venture between Pequiven and ENI, a company under the umbrella of giant industry in Italy (Webb 1993 in Rondinelli 2002).

4. Public-Private Partnership

The cooperation agreement between the government and the private sector in the form of not too formal than concession also is believed able to address the increasing need for public services which are increasing from year to year, such as what occurring in the Latin America countries and Asia (Rondinelli 2002).

As an example the Costa Rican Government which entered a cooperation agreement with a private company in developing ecotourism industry (Rivera et al 1998 in Rondinelli 2002). The role of the Costa Rican Government in this case comprised development, conservation and development of protected natural areas and national parks. Meanwhile, the role of the private sector and private investor in this case were development of eco-tourism programs and made contribution in its financing mechanism. The results were eco-tourism industry not only gained significant revenue and open up new jobs but also strengthening the national park system, financed research and education on environmental conservation and developed natural resources which in itself own by the private sector (Paddon 1998 in Rondineli 2002).

The government also can play active role in providing fiscal incentive and guarantee to increasingly promote the private sector and other non-profit organizations to make contribution in the development of public infrastructure and services.

In India, for example, federal government institution as well as government institutions repeatedly offered incentives to the private sector for land area and low cost housing development in slum areas (PADCO in Rondinelli 2002). The concept of Public-Private Partnership (PPP) also is known as one of the approaches in translating privatization. The PPP approach which at present is carried out in the involvement of the private sector in the clean water sub-sector in Jakarta, and has been introduced since 1990s. The turning point was the Presidential Instruction of the Republic of Indonesia at that time, Soeharto in June 1995.

The stressing on the utilization of private investment mobilization, as discussed earlier, also was reflected in the PPP approach in Indonesia. It was stated that at the outset the main concern of the Government of Indonesia in undertaking the involvement of the private sector in the provision of drinking water was to inject fresh funding from the private sector to the public financial resources (Walker et al 1992 in Lee 1997).

The idea on PPP also was encouraged by the need to resolve urgent issues, because basically the clean water supply in Jakarta in early 1990s was identical with the poor service but by imposing high price (Jensen 2005).

In the case of PPP, it is important to reduce the reliance of financing alone on state budget and fund transfer from the central government. Drinking water provision should be feasible enough to obtain loan from banking institution in view of recovering investment cost, i.e. covering the operational and maintenance costs and overcoming costs for development of clean water supply system with a better performance (Badan Regulator Air Minum 2007).

Implementation of PPP in Indonesia

Unlike the condition in England and Wales, government assets to serve the public interest, such as drinking water, principally, could not be transferred its ownership. The concept adopted in Indonesia is associated with the Public-Private Partnership approach.

PPP in the drinking water service provision in DKI Jakarta is viewed important for the improvement of efficiency and enhancement of clean water service, improvement of management performance, improvement of financing capacity and access to financing sources for sustainable investment (Badan Regulator Air Minum, 2002). PPP is expected to provide significant benefits in better financing management. The PPP approach is viewed beneficial for the undertaking of public services for reason to improve efficiency and mobilizing fund for the development because the public sector undertaking usually is constrained and hindered by limited funding and weak management.

Chapter 3 Public-Private Partnership (PPP) in the Jakarta Water Supply Provision

In practice the PPP scheme which now-day is being implemented in Indonesia denotes the transfer of the provision of public service in the form of management, investment, or operation of government owned public utility to the private company. There are 6 options of publicprivate partnership scheme, namely service contract, management contract, concession, leasing, BOT scheme, and divestiture. Each option offers different scope of service. Service contract has limited scope of service and contract duration, which may include design, study, supervision, improvement, billing, meter reading. The payment to the private company is based on input, output or proposal. Management contract is awarded to private firm because of its expertise with operational risks become its responsibility. The contract duration is around 3-5 years or 25 years. In contract management there is no investment by the private firm. The payment is based on management fee. Leasing in the form of yearly leasing for the management, operation, maintenance, does not involve investment. The reason for leasing because of limited human resources, and constraints in the public personnel regulation. Concession contract or franchising is similar to leasing but private firm could make investment. The contract duration is around 25 years. In the concession there is usually lead time of about two years because risk identification and review of existing condition are required. The BOT (Built Operate Transfer) scheme or the like is needed because there is a need of big capital for development. The contract duration is around 10 years. Full divestiture is the transfer of the whole assets to the private firm. However, because public utility has monopolistic characteristic, hence the consumers need protection from the abuse of authority (power) by the private firm. Tariff determination and

service standard and limitation on short term profit are factors that need to be controlled.

In the monopolistic market, according to international best practice an independent and professional institution that is capable of protecting the interest of the consumers and at the same time providing affordable tariff and reasonable profit to the operator is required.

In the past the DKI Jakarta Local Water Works Enterprise (PAM Jaya) was a locally owned enterprise of the DKI Jakarta, and was an institution that is most responsible for the operation of the drinking water service provision in Jakarta. PAM Jaya operated the water supply since 1922 to 1998. Since February 1, 1998 the service area was divided into two parts, namely the west part and east part under the Cooperation Agreement scheme.

The PPP scheme which is translated in the form of cooperation agreement between PAM Jaya and the private operators is motivated by the lack of financing and inefficiency which was experienced by PAM Jaya with the expectation the private operator would be much better in carrying out improvement of clean water service in the DKI Jakarta region. The process of selection of private operator was based on the process of "appointment" considering of lack of experiences and regulations concerning the private sector participation, and the consideration of private sector participation as a pilot project in the drinking water sector.

Reasons for the PPP in DKI Jakarta Drinking Water Service

As described earlier that in the context of water sector development in Jakarta, what has happened was the implementation of PPP scheme. The World Bank played a big role in the development of the PPP approach for the development of basic infrastructure, especially the clean water supply facility. The World Bank has the opinion that PPP scheme is required because it will stimulate expansion of the development of drinking water infrastructure. Hence, it would need policies that could draw interest for foreign investment, such as among others a strong political will, the regulatory framework that is more supportive and adequate quality of human resources.

The year 1991 became a turning point for PPP process in the water sector in Indonesia. At that time, the World Bank committed to provide fund amounting to US\$ 92 million to the drinking water authority at that time-PAM Jaya. The World Bank's financial assistance must be allocated for the improvement of the network system and development of clean water infrastructure for the Jakarta residents. Meanwhile, the Japanese through the Overseas Economic Cooperation Fund (OECF) also provided Ioan for the development of Buaran I WTP, Buaran II WTP, and Pulo Gadung WTP. The World Bank itself from the beginning continually pressed the Indonesian Government agencies to implement cooperation scheme with the private sector in the development of basic infrastructure and management of clean water. The partnership with the World Bank and Overseas Cooperation Fund among others was realized through the development of Water Treatment Plant in Pulo Gadung, East Jakarta (ICIJ 2003).

Cooperation Agreement

The initiative to collaborate with the private sector started by involving a private firm with the head office at Reading, UK, that is Thames Water Overseas Ltd., which for the first time started permanently to set its foot in Indonesia in 1993. This company forged a partnership with Sigit Harjojudanto, one of the sons of Soeharto. From this agreement, Sigit -who himself in fact had no experience whatsoever in the clean water supply, in fact received a portion of shares of 20 percent. This situation however invited critics, the ICW coordinator commented that awarding shares is more than oligarchy,

which is an act of nepotism. The fact is that the son of Soeharto received shares at no cost indicated the sign that what is requested from the son of Soeharto is more than a political favor because of the big name of the Sigit's father (ICIJ 2003).

Related to above, Thames argued that this was pursued merely because of the need to respond to the real political situation at that time, Peter Spillet, Head of Environment and Sustainability, Thames, stated that it has become a common perception during that time that all foreign companies that have dealing with the Government of Indonesia, like it or not, must also deal with-what ever the name isone of the elements of the Soeharto family (ICIJ 2003).

Suez observed the development of situation faced by Thames; Suez itself actually is not a new player in the water industry. This multinational company has started its business in Indonesia since 1950s, as a contractor in the construction of WTP in Indonesia. The report at that time stated that Suez was apprehensive that Thames "maneuver" could damage the concession that its first received (ICIJ 2003).

Afraid of being left behind, Suez then took the initiative to approach Anthony Salim Group, one of the cronies of Soeharto, Salim Group. The historical relation has colored the closeness of both, because previously they have worked together in the construction of WTP through its subsidiary company, Veolia (ex Generale des Eaux) in Serang, West Java. Both agreed to form a partnership in order to capture the concession of drinking water management in Jakarta (ICIJ 2003).

Salim was cautious in responding to this competition, and opted to maintain harmonious relation with the emporium of Soeharto family business. Upon Suez initiative, Salim Group submitted proposal with a win-win solution to the Government of Indonesia, that is suggesting that the concession for Jakarta should be implemented by dividing Jakarta into two separate zones, which are relatively of the same size, with Ciliwung River as the boundary. This approach in fact was supported by the executive of Suez at that time who has the view that the Jakarta economic potential is sufficiently enough for the two companies to work together. The same situation also happened in Metro Manila and Paris where the rights of clean water supply provision were given to two different companies (ICIJ 2003).

The process toward a contract, which was later known also as Cooperation Agreement, was then negotiated with the two concessionaires. The process proceeded for a long time and finally their intensive lobbies bore fruits. On June 12, 1995 President Soeharto issued guideline on the need of a cooperative scheme, which later was known as Public Private Partnership or called KPS in Indonesia, for the development of the water sector in DKI Jakarta. The guideline was in fact in line with the previous existing legal framework, i.e. MOHA Regulation No. 4 Year 1990 on Cooperation with the Third Party. The President also agreed to dividing concession area of Jakarta into two separate service areas and later directly instructed the Minister of Public Works, Radinal Moochtar, to divide Jakarta into two concession areas of the same size. Representing the government, the cooperation agreement was signed by PAM Jaya, a public company that has been long time involved in the development of water utility. PAM Jaya also eventually became the main actor in monitoring the implementation of the agreement.

The chronological process of PPP scheme in the DKI Jakarta is described below in Figure 2.



Figure 2

Following-up the President Soeharto's instruction on the importance of PPP scheme, the Letter of Intent was later signed between the Minister of Public Works and the DKI Jakarta Government, which later was incorporated into the Minister of Public Works Decree No. 249/KPTS/1995 dated July 1995 and the DKI Governor Decree No. 1327/95 dated October 31, 1995.

On October 6, 1995 letters of appointment of private operators for the management of clean water provision in DKI Jakarta were issued, dividing project into two service areas, namely the west and the east side of Ciliwung River.

Next, letters of invitation were issued to two prospective drinking water operators, which are international companies, namely Thames Water (partnering with PT Kekar Pola Airindo (PT KPA)) on June 30 1995 and Lyonnaisse des Eaux presently Suez Environment (partnering with PT Garuda Dipta Semesta-PT GDS) on August 21 1995. Each respective operator later submitted its response to the Minister of Public Works, stating of its preparedness to complete the Feasibility Study (FS) in 6 months time.

On October 6, 1995 an MoU was signed among others containing point that concession on one part of Jakarta is awarded to Thames and PT Kekarpola Airindo, accompany owned by Soeharto's son, whereas other part of Jakarta is awarded to Lyonnaisse des Eaux and its partner Salim Group (PT GDS) (ICIJ 2003).

According to the existing regulation in Indonesia, foreign firms are basically not allowed to make investment and operate the clean water service in Indonesia. The action taken by the government was then to revise the existing regulation. The Minister of Home Affairs (MOHA) at that time, Yogie S. Memet, responded to this matter by issuing a new Minister Regulation in 1996, which took out drinking water provision from the list of one of the sectors that is prohibited to be managed by foreign firm.

Following-up the MoU, two simultaneous processes were undertaken. The first was the establishment of Inter-Sectoral Coordination Team, and the second was the establishment of Negotiation Team. The negotiation process proceeded between the government and Thames Water (partnering with Kekar Rola Airindo) and Lyonnaise des Eaux (partnering with PT GDS). One of the points of the negotiation was to rescheduling the implementation of feasibility study (FS), which was delayed for six months.

Finally the internal FS of Lyonnaise des Eaux was completed in March 19, 1996; whereas, Thames Water on May 31, 1996, after an evaluation process of FS of the two international firms, the FS was then approved on June 4, 1996.

However, the negotiation between the operators and Negotiation Team dragged out for more than one year, involving three different ministers and the DKI Jakarta Government. The tedious process of negotiation, which lasted until June 1997, among others is due to the bureaucratic elements that opposed the transfer of the right of clean water supply provision to foreign firms.

Other issue that was hindering the negotiation process was Soeharto directive to the Minister of Public Works, Radinal Mochtar, regarding the issue of financial management that favoring the private operators. The private firms wanted exclusive financial management. PAM Jaya, on the other hand, wanted access to information on water revenue and other data on the performance of water service. Through a serious negotiation, finally the issue was resolved.

The private firms backed down on the issue that they would be paid by PAM Jaya in US currency, arguing that they obtained loan in US currency. However, the DKI Jakarta Governor, Suryadi Soedirdja, rejected the request of the private consortium and when they still insisted on their choice, the Governor persisted strongly that he will withdraw from the agreement (negotiation), then the two private firms were prepared to accept payment in Rupiah.

The process of negotiation proceeded tediously and long time, lasting for two long years, involving prominent institutions, namely the World Bank/IBRD, Ministry of Public Works, Bappenas, Ministry of Finance, and the Provincial Government of DKI Jakarta.

After so many meetings were held, and the meetings were held in marathon through dialogues and "take and give" negotiations, finally the agreement was reached and the Cooperation Agreement (RCA) was signed on August 26, 1997. Sigit Harjojudanto, son of the former President Soeharto, attended the signing ceremony. Executive of Lyonnaisse des Eaux commented that only on this occasion he saw Sigit directly, not during the process of negotiation. Also attended the ceremony were Anthony Salim, who by many people was considered as Soeharto's crony.

Because the condition precedents were in force, which were incorporated in the 11 points, the RCA then become effective per February 1, 1998.

In the turbulence of the last days of Soeharto government, Asia was hit by monetary crisis, in which it exactly occurred on the period June 6 1997 to February 1, 1998. On the diagram and time line below, it could be seen how the reformation unrests (turmoil) have affected the implementation of RCA in the first five year period of its implementation:



As a consequence, Lyonnaise des Eaux formed a subsidiary company partnering with its local partner from Salim Group, i.e. P.T. Garuda Dipta Semesta and giving 40 percent of shares to Lyonnaisse des Eaux, whereas Thames partnering with P.T. Kekar Thames Airindo got 80 percent of the shares.

In the agreement, the commitment on good corporate governance that is more transparent, especially in accessing the financial report from the operators, also experienced obstacle (impediment). In time, the transparency process proceeded quite slow. Even, from both operators, only one was prepared to be fully transparent as it is required to conduct performance analysis, while other operator implemented transparency in a more limited way.

Subsequent problem is the effectiveness of the agreement that is viewed as lacking in promoting good performance of the operator. One of the indicators is the weak sanction when the operator shows good performance and or poor performance in achieving the technical target and service standard as stipulated in the contract.

PAM Jaya also agreed to enforce stern measure to the business entities, factories, and households to close its deep wells, and urged them to shift to piped water system provided by the operator. Although, at present it is identified more than 70 percent of the drinking water sources in Jakarta are originated from the water wells.

Whatever through this agreement the authority of PAM Jaya was slightly weakened significantly. In fact, PAM Jaya has no access to data on operator financial business performance progress.

In relation to the tariff increase, it must have the DPRD's (Local Legislative Body) approval, however the contract states that PAM Jaya

is obliged to pay shortfall that occurred due to delay in increasing the tariff, for example because it is being postponed due to tediously long drawn debates in the DPRD. In its development, PAM Jaya owed considerable amount of money to the operators, as a consequent of the shortfall.

With respect to the performance in the contract it is stated that in the first five year period operators are obliged to expand the total connection up to 757,129 units, water volume almost twice and the service coverage to reach 70 percent of the total population. At that time, in the Jakarta's context, it was assumed one connection is used by seven persons. The operators also promised in the first five years they would make investment of Rp. 732 billion or equivalent to US\$ 318 million at the price level in 1997.

The RCA was signed on August 25, 1997, and effective in early 1998. At that time the economic condition of Indonesia started to experiencing crisis. In June 1997 the Thailand currency, Baht, plummeted. In month of July 1997, the monetary crisis in Thailand spread to Indonesia. In February 1998, the implementation of the cooperation agreement commenced. Meanwhile, since January 1998 Indonesia started to feel the crunch of the crisis. The Rupiah has reached the level of Rp. 10,000 per US dollar, from Rp. 2,000 per US dollar in June 1997. Indonesia's economy was at the tip of the horn. In May the dollar passed the Rp. 15,000 per US dollar. Unrests hit the whole country. The monetary crisis developed into economic crisis. The situation got worsened, by the large scale social unrests that hit Jakarta and several other cities. The intense pressure of demonstrations brought about the down fall of President Soeharto.

The operators faced the fact of reformation that changed Indonesia from the political, social, economic, even cultural dimensions. The

global investors entered Indonesia in the mid Indonesia experiencing extraordinary event, uncertainty, even chaotic. The water concession that was reaped by hard work, faced unbearable fact during its implementation, a challenge, likely to be a big challenge, beyond the expectation of its top executive.

1998 Crisis

The 1998 crisis was a fact that the process related to the development of basic infrastructure will always face change and risks of uncertainty. And sometimes, the change that must be confronted happened so fast. The provision of infrastructure and basic services include also drinking water what so ever are related with the dynamic of economic, social and institutional condition in a more wider context. This is certainly add to the complexity how to respond to the wider need of the people in the mid of change that happened so fast.

The dramatic event of May 1998 which was marked by the widespread of riots has affected the work and business operational management of the drinking water operators. So many citizens were anxious regarding the uncontrollable situation, the fear spreading everywhere. This situation was also felt by the foreigners; including among them were 30 executives and their family members from the two multi-national water companies, namely TPJ and Palyja who took flight abroad (Singapore) during the social unrest. Yet, less than three months ago these companies have just took over the management of clean water in Jakarta, through a cooperation mechanism with the local partners and PAM Jaya.

One of the employees at the drinking water installation plant said that the unrest has caused disturbance to the supply of chemical materials which were highly needed in the water production process, i.e. chlorine and aluminum sulfate (ICIJ 2003). The disturbance to the clean water treatment process certainly has high risk for the customers, comprising of more than 7.5 million people in Jakarta. The absence of clean water supply for the residents of Jakarta when not immediately addressed could trigger a larger scale of chaos.

The spread of crisis certainly has affected the process of PPP scheme in the provision of clean water in DKI Jakarta. The capability to pay (affordability) of the people fell drastically, at the same time the burden of the people to meet their basic needs also increased drastically. The capacity of the customers to meet their responsibility of water bill also was affected. From the supply side of drinking water provision certainly it will have implication on the decreasing revenue of the operator; on the other hand, due to the falling rupiah exchange value, the operational costs, especially those related to the imported material and technology, rose steeply. Hence, the shortfall could not be prevented.

The post May 1998 riot, and the fall of Soeharto, have brought about a different situation. The wave of change was no longer profitable to the cronies and business network of the former President Soeharto. After the social unrest and reformation, the Suez and Thames Executives realized that the concession contract that was recently signed in fact have lost almost their political support. Their partner who previously were expected to lend support for the facilitation in overcoming bureaucratic obstacles, suddenly become a burden that impeded the process of the effectiveness of the cooperation agreement (RCA). The Provincial Government of DKI Jakarta through its policy in fact no longer supported the position of the private consortium. This condition has forced them to formulate new strategy to respond to the changing condition. The executives of the drinking water operator also realized that re-negotiation of cooperation

agreement could no longer be avoided. Re-negotiation however then did not proceed smoothly as expected.

The reform also caused the rising public pressure on issues which previously have not been addressed, because they were not in line with the interest of the operators, such as the need of the drinking water provision for the poor and financial management improvement have become a key topic that must be discussed in the re-negotiation.

One of the actions taken by the private consortium to take the risks which are likely to emerge was to decide to buy the shares owned by Salim Group and Sigit Harjojudanto. As such, they no longer have relations with Soeharto family business network which at that time drew wide scale of public protest. At the same time, the Governor suggested to those private companies to withdraw from the concession originally agreed upon, and renegotiate it. A solution viewed as a middle road. The private companies the holder of concession pushed out the shares holders who were viewed by the public as representing the power of the New Orde. The businessman Sigit Harjojudanto withdrew from Kekarpola Airindo, and Salim from Garuda Dipta Semesta.

The change that has occurred dramatically resulting from the economic crisis has legal consequences, i.e. the long drawn out process of litigation. The conflict with the private firms then could not be avoided. Responding to this situation, the government has the opinion that conflict with the foreign investors will damage the image of Indonesia which was vigorously attracting foreign investments. Eventually the process brought Thames and Suez to agree to renegotiate the contract. In actual, the negotiation process proceeded very tediously for three long years. The factors that also affect the complicity of negotiation process among others were (Lanti, 2004):

- The impact of economic crisis in Asia, causing the rupiah exchange value to drop against the US dollar, from Rp. 2,200 to become Rp. 12,000 and finally reached Rp. 8,500 per US\$. This was clearly affecting the negotiation process, especially in the magnitude of investment, profit margin for the operator and other financial risks.
- 2. Considering affordability level of the people that sharply falling, the local government strived to issuing policy for PAM Jaya to freeze tariff increase for the first three years of the implementation of PPP scheme. On the other side, inflation rose steeply reaching 120%. However, in actual, in responding to high inflation rate, the water tariff was increased three times, that is in April 2001 at 35%, April 2003 at 40%, and January 2004 at 30%.
- 3. Regarding the PAM Jaya's debt and operator deficit which are related to the determination of base water charge rebasing.
- 4. The unclear status of the PAM Jaya employees after the transfer of management to the operator. More than 50% of PAM Jaya's employees were transferred to the operators. This process in fact faced many constraints, and what so ever it affected the performance of the operator. This situation was compounded by the strike of the employees of PAM Jaya. The drinking water service in Jakarta seemed to go into a dead end street.

Renegotiation also proceeded tediously. However, the trend that was happening the private firms again profited by the clauses in the old contract that were agreed upon previously.

Finally, an agreement was reached in October 22, 2001 as later known as the Restated Cooperation Agreement or in short RCA. The items

that are substantial stated in the cooperation agreements could be seen in the following table:

Table 1 -

Comparison of clauses in the old and new cooperation agreement

No.	Item	Old Cooperation	New Cooperation
		Agreement (June 6,	Agreement (October
		1997)	22, 2001)
1	Effectiveness of	11 Precedent	No precedent condition,
	CA	Conditions prior to	immediately effective
		effectiveness, effective	(October 22, 2001)
		starting February 1,	
		1998	
2	Dispute	Settlement through	Settlement based on
	settlement	consensus, through	consensus through
		expert mediation,	mediation by the
		arbitration through	Regulatory Body or
		UNCITRAL, Singapore	appointed expert.
			Arbitration: locally in
			Jakarta, outside Jakarta
			by UNCITRAL Singapore
3	Status of	2,803 employees	Transferred to become a
	employee	seconded have dual	single status through
		status, the condition is	three option
		not conducive	mechanisms
4	Raw water and	Contract through PAM	Direct contract with the
	treated water	Jaya	operator
	contract		
	(purchase)		
5	Technical target	Based of Feasibility	Revised because of
	and service	Study 1996	monetary crisis 1998-
	standard		2000
6	Sanction and	Objects of sanction and	Objects added: level of

	penalty	penalty are volume of	water loss, service
		water sold and water	coverage, timely report
		quality	submission
7	Ground water	Failure to close the	In the case failure to
	pumping	deep well ground water	close deep well ground
		pumping shall be	water pumping, loss of
		compensated by PAM	revenue would not be
		Jaya	compensated, PAM Jaya
			only as facilitator, not
		As a consequence the	affecting the technical
		technical target could	target, the Second Party
		change	has the right to receive
		Ground water charge	ground water charge
		(retribution) shall be	
		shared between	
		operators	
8	Finpro and water	Due to monetary crisis,	Tariff increase of 35%,
	charge	Finpro 1997 could not	new Finpro agreed upon
		be implemented and	(as Appendix to the
		could not meet the	RCA), new water charge
		reasonable water	(indicative) reduced to
		charge tariff (big	20%, previous deficit
		deficit). To	shall be audited by
		compensate the	BPKP, the evaluated
		deficit, the Second	new water charge after
		Party could sell surplus	the transition period
		asset, upon approval by	(January 2003) as a
		PAM Jaya	starting point for the
			remaining concession
			period.
9	Regulatory Body	Supervisory Body same	An independent

		as Regulatory Body, not	Regulatory Body was
		effective/productive	agreed upon instead of
			Supervisory Body
10	Asset	At the end of	Investment program
	management	concession period,	shall be planned
		remaining asset book	(scheduled)-no
		value shall be	remaining book value at
		compensated by PAM	the end of the
		Jaya.	cooperation
		At the end of	Guarantee -
		concession period,	performance bond on
		there is no guarantee	asset which shall be
		from the Second Party	return at the end of
		on the condition of	concession period
		asset of the First Party	
11	Escrow account	Money withdrawal	Money withdrawal
	(E/A) mechanism	mechanism from the	mechanism from the E/A
		E/A is based on one	based upon agreement
		sided instruction of the	of both parties
		Second Party	

In this new contract, the private firms agreed that PAM Jaya shall be given the right to control bank account, which later will be used. Also, it was agreed that the previous bank account shall be used to pay the existing operational costs, the account also shall be used to pay debts owed by PAM Jaya.

From this agreement process Thames and Suez later formed two new companies: P.T. Thames PAM Jaya (TPJ) and P.T. PAM Lyonnaise Jaya (PALYJA). At that time 95% of their shares is owned by the their holding companies in Reading, UK and Paris, France, respectively.

Thames gave the remaining 5% of the shares to P.T. Terra Metta Phora, whilst Suez to P.T. Bangun Cipta Sarana. These two local firms previously were sub-contractors of the two foreign operators of PAM Jaya.

One of the provisions in the Restated Cooperation Agreement (RCA), PAM Jaya and its foreign partners incorporated a clause to establishing "Independent Body: in clause 51 RCA that is called Jakarta Water Supply Regulatory Body (JWSRB). The JWSRB organization officially was formed on November 1, 2001 through Governor of Jakarta Decree No. 95 Year 2001, which later was renewed by Governor of Jakarta Regulation (Pergub) No. 54 Year 2005, dated April 27, 2005.

An auditor in Jakarta stated that the issue of financial resources shortage faced by the consortium is actually due to the internal factor, because the operational costs are too high and not efficient. In fact, the companies chose to rent office at two separate places in the elite business districts in Jakarta, instead of using the existing PAM Jaya building. In addition, the salary for the executives of the consortium is also seemed too high.

Post RCA

The period after the signing of RCA was a transitional period, and also constituted the final years of the first five year program which will end in December 2002. The targets of the transitional period among others were:

- Determining the real and reasonable cost;
- Developing mutual trust;
- Strengthening understanding the role and function of respective Party.

With respect to the service performance, in year 2001 Suez claimed that they have accomplished improving the level of total connection of 50% to become almost 300,000 connections from its previous position in year 1997 at 200,000 connections. Whereas, Thames stated that they have managed to improve the total connection from 268,000 in 1998 to approximately 320,000 connections in 2001. The performance of both companies/operators when added will total 620,000 connections, whatever it was still far below the target of 711,000 connections. This condition could be understood, because of the crisis during 1998-1999. The political and economical condition started to improve in 2000, hence the real working period was about 1 year.

Related to the failure to achieve the target in the total connection, the executives of Thames and Suez claimed that the impact of the crisis had made it difficult to achieving the target, because of the currency devaluation which made the prices of the needed equipments rose steeply, because they must be imported. Suez executive also blamed the attitude of the seconded employees of PAM Jaya who were reluctant to cooperate with their new bosses because they were treated unjustly and anxious that they would be dismissed (laid off) from their jobs. Thames also blamed for the lack of support from the government with respect to tariff increase, which was very much needed in improving the company financial condition.

From the Jakarta urban poor perspective, basically the new connection whatsoever did not mean they could continually receive water. For the many poor people this was seen only as installing new meter, they still must buy water from the water vendors. This condition caused more than 70% of the population received inadequate supply of clean water. Affordability became a key issue in this case and tariff increase had taken place several times since 1998. The tariff

increase for the customer groups are not the same among the low, medium, and income customers.

This condition was in every respect dilemmatic, because of the fact, both concessionaires also served the poor customers (Group 1 and Group 2) in large number, about 25% of the total customers.

Both concessionaires were considered unsuccessful in accomplishing the investment target as stated in the contract.

Public service, such as drinking water, concerns with the basic need as such its undertaking becomes the affairs and responsibility of the government. Because it concerns with the public interest and has social and economic function, hence the tariff could not be monopolistically determined. Thus, tariff setting must reflect the affordability of the people, especially those of the low income groups. On the other hand, operational and maintenance costs must be met from water revenue, including investment cost for its development. Considering both sides of opposing problem, it became a challenge for the undertaking of a drinking water utility.

Between 1998-2001, because of the crisis, the Provincial Government of DKI Jakarta had not implemented tariff increase. Meanwhile, the water charge, adjusted every semester in accordance with the inflation increase continued to rise. Thus, shortfall or debt of PAM Jaya to the concessionaires occurred. The debt of PAM Jaya to the concessionaires was estimated to total Rp. 800 billions. Through good will negotiation, the concessionaires accepted to paid in installments without interest. The payment was arranged through a Automatic Tariff Adjustment or ATA, which was endorsed by the Governor in 2004, with the clause that the water tariff will be raised every 6 months (semester), up to 2007. The ATA which was implemented for three years was expected to cover the debt to the concessionaires, so that the concessionaires' business become healthy (viable).

In the mid of this economic crisis, in December 1999, the Jakarta DPRD requested BPKP to audit in a more accurate way how the status of shortfall experienced by the operators. The result of audit BPKP become the main input for the process that occurred in the ICE (Independent Combined Expert) Team conducting the first period rebasing.

Outside the shortfall debt, PAM Jaya also had debt around Rp. 1.6 trillion to the Central Government. The debt originated from the development projects of several water treatment plants, improvement and augmentation of distribution main and other investments during the period 1980 to 1995, which was in the form of two-step loan mechanism from the World Bank and OECF Japan to PAM Jaya, as an institution under the ownership and management of the DKI Jakarta Government. The initial debt was around Rp. 762 billion. However, because it failed to pay the loan, the loan was then getting bigger due to the interest. In the early period, there were 21 loans, where in 2006 all have been repaid

During 2004-2007, the Governor DKI Jakarta Decree on ATA provided fresh

opportunity for the concessionaires to obtain capital injection originated from the balance of tariff increase in each semester, and partly from the revenue can be converted as loan repayment.

Box 1

Water Tariff and Water Charge

In the RCA, the concessionaires are assumed to produce water for the

distribution to the consumers. Water charge is the fee received by the concessionaire per m3 of volume of water billed and borne by PAM Jaya through Escrow Account. This water charge is derived from the calculation consisting of capital expenditure or capex, operational expenditure or opex, Internal Rate of Return or IRR which are the magnitude of (value) the payment of operator equity invested at constant price up to the year 2022 and other costs; divided by the volume of water billed. This water charge is adjusted every semester in accordance with the inflation rate, plus with FOREX loss (if any) and the difference of bank interest rate on operator loan where its magnitude is determined between the concessionaire and PAM Jaya. Meanwhile, the water charge is the water tariff charged to the consumers which is determined by the Governor of DKI Jakarta after obtaining recommendation from the Jakarta Water Supply Regulatory Body (JWSRB). The recommendation will be submitted upon request of the parties and after due diligence of the parties' proposal is conducted

With no tariff increase during 1998-2001, the water charge became higher compared to the average water tariff. The balance (difference) is borne by PAM Jaya, as the party that is assumed to maintain the RCA. To assist PAM Jaya in not bearing the debt, the Automatic Tariff Adjustment was introduced by the Governor of DKI Jakarta after receiving written consent from the DPRD. This policy, politically, urging independency of the JWSRB to reject the tariff increase proposal if the service performance is not achieved or below the target. However, in principle from 6 (six) ATAs the JWSRB only submitted 4 proposals on ATA, and twice proposed not to implementing ATA. The Governor accepted the JWSRB's recommendations, hence only 4 times the ATA were applied, because the operator performances were below the target.

As a consequent, PAM Jaya's debt has not been repaid, and the balance sheets of the concessionaire were affected. This decision was taken, because the increase of water charge was not linked to the performance, meanwhile water tariff increase according to the JWSRB must be based on performance.

With this pressure, in the final stage, the concessionaires strongly attempted to improve its performance. Only, unfortunately the ATA program has expired.

The problems occurred when in granting ATA I, II, III, there were no improvement in the performance, even it experienced under performance, especially in the level of water losses. Up to 2007, the average levels of water losses of both operators were approaching 50%. Certainly, the NRW is not identical with the performance, but technically, in the water business, NRW constitutes a key technical and service indicator.

The private sector managing the water supply provision in Jakarta seemed to get critical momentum, when in year 2006, the Minister of Public Works sent a letter to the Jakarta Provincial Government, stating its evaluation on the implementation of PPP mechanism of drinking water supply provision in Jakarta, which among others stating that since the ATA III (First semester 2006), the average tariff of Jakarta water service has reached above Rp. 6,000/m², meaning it become the highest compared with other big cities in the Southeast Asia region. The data used by the Ministry of Public Works is the data from LE-AEP year 2005 on Regional Assessment Survey and Workshop on Full Cost Recovery for Water Utilities in Southeast Asia, as presented below:

No.	City	Average Tariff US per m3
1	Singapore	0.55 ³
2	Manila (Philippines)	0.35 ³
3	Kuala Lumpur (Malaysia)	0.22 ³
4	Bangkok (Thailand)	0.29 ³
5	Jakarta (Indonesia	0.70 ³

Table 2

² Portable Water

PAM Jaya drinking water service became a national and international public interest. A number of scientists from several countries, including the university research activities, conducted review on Jakarta PPP scheme implementation. A number of non-government institutions and education institutions submitted a series of reviews, discussions, and criticisms on the implementation of PPP scheme.

There is an accurate side, and not yet accurate. For those not accurate, a number of topics on the implementation PPP scheme in Jakarta, which will be proceeding for 25 years, up to year 2002, will presented in next sections (chapters).

Chapter 4 Jakarta Water Supply Regulatory Body

One of the key institutions in the Public-Private Partnership (PPP) scheme in the public service that concerns with basic need, such as drinking water, is the existence of impartial and independent institution that has the mission or function to ensure that the process of PPP scheme will proceed accordingly by pursuing maximum profit in a balanced and proportional ways, among others these are:

- Private business entity, as the recipient of concession;
- Consumers, as those who receive the product/service, as object of the PPP scheme transferred from the government to the private sector;
- State/Local Owned Enterprise (S/LOE), as entity that is previously managing the public service;
- The Government (and/or Local Government) as the party having interest over the issuance of policy of the transfer of management to the private sector, with respect to the guarantee that PPP scheme would provide improved service to the consumers;
- The general public, as a component where all the actors are involved.

In the PPP of the Jakarta drinking water supply, such an institution described above was established by the name Jakarta Water Supply Regulatory Body or in short JWSRB.

Legal Framework

As described earlier that one of the mandates of the Restated Cooperation Agreement (RCA) is the provision that stipulates the need to form a new regulatory body. PAM Jaya and its concessionaires incorporated the clause on the establishment of "Independent Body" as stated in clause 51. The organization of the JWSRB was formally set in 2001, through The DKI Jakarta Governor decree No. 95/2001, which later was revised by DKI Jakarta Governor Regulation or abbreviated as Pergub No. 54/2005 dated April 27, 2005. The World Bank provided input to the preliminary format formulation and organizational design of the Regulatory Body. And also, in 1999 input was received from other similar organization based in Perth Australia, NERA (Lanti 2006).

The main reason for the need of the Governor policy to establish a new body that is independent and not utilizing the existing government agencies such PAM Jaya, is the difficulty to change the existing government agency to become a regulatory body. If this is implemented then it would cause conflict of interest. PAM Jaya as one of the parties in the agreement, should not at the same time serves as a regulator. Besides the establishment of a new regulatory body that is independent is a common practice in the PPP scheme in several countries.

The legal framework for the establishment of the regulatory body is the issuance of the DKI Jakarta Governor No. 54/2005 on the Jakarta water Supply Regulatory Body, which stipulates that:

> The JWSRB is an independent and professional body having objectives, functions. and authorities as regulator, facilitator, mediator and arbitrator, and other functions and authorities as stipulated in this regulation (decree) and in the Cooperation Agreement and its Supporting Agreements.
Article 3 and 4 of the Governor Regulation No. 54/2005 stated that the JWSRB shall have the status as an independent³ and professional body, free from the influence and power of other parties including the First Party and the Second Party in the Cooperation Agreement. The JWSRB, in that position, could issue decisions in the form of regulation, mediation, and arbitration on issues related to the management and drinking water service in the DKI Jakarta Province based on transparency. The JWSRB's decisions on issues involving other parties or agencies/institutions could be submitted and or forwarded to the Parties and other agencies/institutions that have higher authorities by taking into consideration the provisions and relevant laws and regulations. The decisions of the JWSRB are binding and to be implemented by the Parties, but still follow the mechanism of resolving disputes as stipulated in Clause 45 of the RCA. Furthermore, the JWSRB has the function to maintain balanced interest between the public, the contracting Parties, and other bodies/institutions involved in the water service provision in the DKI Jakarta Province.

In its early development phase, the main function of the Regulatory Body was to conduct mediation when disputes arise between the key parties. The JWSRB as an independent institution to regulate good governance of drinking water in Jakarta is expected to play bigger role in order the process of the implementation of PPP scheme is supported by strong coordination and integration pattern among key stakeholders (PAM Jaya, TPJ, Palyja, and DKI Jakarta Provincial Government) that are effective and efficient.

³ The term independent was questioned as the JWSRB is responsible to the Governor. But, later the question became irrelevant as the JWSRB has shown its professionalism and independency to all parties, with out exception.

The status and functions as mandated by the Governor Regulation have been further elaborated through the JWSRB's Chairman Decree No. 012/BR/KPTS/XI/2005 on the Regulatory Body Good Governance, which states that the JWSRB is an independent and professional body having objectives, functions, authorities as facilitator, mediator, arbitrator, and supervisor, and other functions and authorities as stipulated in the Cooperation Agreement between PAM Jaya and its private partners, and in its supporting agreements, and the Governor Regulation No. 54/2005 on the Establishment of the Jakarta Water Supply Regulatory Body, dated April 27 2005. The JWSRB is inseparable part of the contract RCA DKI Jakarta Drinking Water Management, between PAM Jaya and its private partners (concessionaires), namely PT PAM Lyonnaise Jaya (Palyja) and PT Thames PAM Jaya (TPJ).



Figure 4

As an independent Regulatory Body also has other advantages, among these are offering continuity of policy across changes of Minister and government, it is expected there is an integration between the adjudication function, policy formulation and implementation. In addition, an independent Regulatory Body is expected to be self sustaining to develop its professionalism with the support of good quality human resources.

The period of service of the Regulatory Body is three years. During the first term (2001-2004), members of the JWSRB comprised competent individuals directly appointed by the DKI Jakarta Governor. The first board members were Chairman, Secretary, Technical Member, and Finance Member. Achmad Lanti as Chairman; the late Suratmo Notodipuro as Secretary; Mohammad Jusuf as Finance Member, and Prof. Benny Chatib as Technical Member.

The main function of the JWSRB is to build Good Governance with regard the management of the drinking water service provision in the DKI Jakarta operated by PAM Jaya and its two concessionaires. In other words, the JWSRB is established with the purpose to maintain the implementation of the RCA that could proceed properly in accordance with the rights and obligations and principles of interdependency, fair, consistent, transparent, accountable, and can be accounted to the public, and having the objective to maintain the delivery of drinking water that is of good quality, quantity, continuity, economic, and affordable to the consumers.

In its development, however, the functions of the JWSRB were questioned as to the extent of the ability to maintain a fair balance between the interest of the consumers and operator and what suitable role to maintaining the balance of interest of the two parties. The owner represented by PAM Jaya has the interest in having the lowest price in the provision of drinking water service, meaning a service that is affordable. Whereas, its concessionaries have the interest in obtaining the level of Investor Rate of Return (IRR) of 22%, minimizing

the risks as low as possible, personnel satisfaction, maintaining good reputation, continuity of the project, accomplishing the mission and maintaining the vision. On the other hand, based on Customer Satisfaction Survey (CSS), consumers or the public are more interested in the quality service, reliable supply, easiness of payment outlets, just and fair determination of calculating the water bills, and even drinkable water from the tap.

As an independent body, the JWSRB is expected to have several championing over the government agencies as regulator, namely continuity of policy across change of government/administration, better way of implementing adjudication function, decision making and enforcement, and high expertise. The Regulatory Body hence is responsible on these following areas: (i) policy formulation, (ii) detailed elaboration of standards and target, (iii) monitoring the compliance on agreement, (iv) tariff setting, (v) mediation, (vi) sanction enforcement. However, with respect to tariff setting and adjustment, the government are still responsible because of the laws and political consideration. Meanwhile, responsibilities in other areas the concessionaires have suffered from the various issuance of regulations. Hence, the role of the Regulatory Body needs to be limited to the responsibility on economic regulation, that focuses on maintaining the technical target and service standard that is more appropriate for the determination of tariff adjustment. Other areas of responsibilities are more on coordination; whereas, the RCA seems to stress the role of the JWSRB as mediator and focus on technical issues.

After ending the first period of the cooperation project (one period is three years), a new regulation on Regulatory Body was issued for the second period (2005-2008) as Governor Regulation No. 54 year 2005, which among others giving larger role to the Regulatory Body.

During the last five years, the Regulatory Body has undergone a "learning-by-doing" process, although there are a number of parameters that are just beginning to develop for judging whether the system is effective, namely (Lanti 2006):

Mandate: Does the Regulatory Body have a clear mandate to perform all its tasks and functions, in other words, does it have sufficient legislative authority?

Accountability and independence: Is it accountable to key stakeholders; in other words, is there an appropriate system of accountability? At what level of degree the control of local government and local parliament over the JWSRB for ensuring its independence?

Transparency: Is its operation transparent, is information readily available and are procedures fair, accessible and open? Does it collect the right information on costs and performance?

Expertise and credibility: Does the JWSRB have or does it act with sufficient expertise to have shown its credibility in attracting investment whilst protecting consumers and PAM Jaya interests? *Efficient and fairness*: Is the system efficient at delivering its

objectives? Does the JWSRB have shown a reputation of fairness both to the concessionaires and consumers? Does it have a clear process for decision making?

The Legislative Mandate

This criterion is fundamental for ensuring that the regulator cannot only go above his task with the full backing of the state, but also that the position has the support of the public. The position of the regulator needs to be firmly entrenched in the legal and administrative system for it to withstand the many challenges it will face. It would be best that its authority stems from the body most closely representing the community, that is, the democratically elected parliament (the local parliament, DPRD or even better, the national parliament, DPR) (Lanti 2006).

The most recent Governor Regulation no. 54/2005 is considered as a temporary measure until the position of the regulator can be strengthened through drafting, discussion, and issue of a PERDA (a local regulation). In fact, in discussion with the provincial government on the positioning of the JWSRB, it seems clear that national legislation is needed to give full legitimacy to such bodies and to ensure some uniformity across the country. However, in spite of the recently enacted Law on Water Resources (no. 7/2004) and its Government Regulation no. 16/2005, the expected establishment of an overarching National Regulatory Body has not as yet properly materialized.

Accountability and Independence

Check and balance mechanism are important in order that the parties not to favor solely economic interest only. Again, an effective mechanism needs to be carried out in order to prevent excessive profit from the parties. Accountability of the Regulatory Body is an important element in this regard, which must be implemented in a balanced way based on principle of independency. The Regulatory Body in principle must also be controlled, although that control is not of the strong top-down type by the local and central government, but it is exercised more on participatory model supervision, which stresses on the role of the larger and knowledgeable public.

The presence of an independence regulatory body is also useful in relieving the pressure on the local government and DPRD when issuing unpopular decision, such as the issue on tariff changes.

A number of key roles that could be conducted by the Regulatory Body in relation to the principle of accountability and transparency are:

- Supervisory control, in order to proceed well, needs dear and detailed formulation of functions and responsibilities in the regulation. At present, there are many functions and responsibilities are still overlapping with PAM Jaya.
- An urgent need for written standard operation procedure (SOP) for the Regulatory Body, enabling the system to work more effectively and providing assurance to other key stakeholders.
- The appointment of regulators by the Governor through selection process that is selective, open and widely publicize to the public.
- Annual reporting mechanism to the executive and legislative and an independence public audit on the regulator financial and operational performance will significantly strengthened the commitment on accountability.

Clear distinction should be made between areas in which the Regulatory Body should make decisions and areas where the Regulatory Body only provides input (proposal) to the executive (local government) and DPRD. This is an important matter because during all this time there were many long drawn disputes with the operators regarding the decisions taken, which in fact are the Regulatory Body's authority. Furthermore, at present there is no significant follow-up related to the procedure in the decision making as set out in the contract. The RCA states that public consultation and discussion processes which are translated from the participatory approach must be performed by the Regulatory Body. Under the patronage of the Regulatory, a FKPM was established as consumer communication forum at the provincial level and KPAM as representatives of consumers at the five Jakarta municipal levels. These forums are sufficient (effective) in accommodating consumer complaints, even though the inputs are obtained through unsystematic way. Whatsover, the effort to respond the issues and complaints, it must be concretely resolved.

Transparency

Acting in the public interest requires strong political will to enable to communicate openly with the public. The fact that the Regulatory Body and the parties work for the public, hence the public needs to be well informed on what is happening. Equally important is to ensure that the public have the access to information regarding activities that have been taken, its specific and measurable achievements, and how the resources are allocated, whether they are effective and right on target. Hence, transparency is an important element to support the legitimacy of the Regulatory Body and source of authority in representing the public interest.

The use of internet based IT technology would be useful so that information articulation among related stakeholders will proceed smoothly. The use of appropriate IT also promotes the process of integration of organization activities to proceed without going through hierarchical ladder which would hamper the process and the coordination process could proceed without being constrained by bureaucratic structure.

Expertise and Credibility

Human resources is a vital component for the strengthening the institution and capacity development of an organization, the support of experts with sufficient qualifications will have positive effect directly to the improvement of the organization performance. Realizing this, the Regulatory Body needs to stress on this aspect among others by conducting skill and knowledge development for its human resources in effective manner. The recruitment process and measured assessment need to be undertaken by sound methodology in order to have optimal result.

Sometimes important decision must be taken at the time when the available supporting information is limited, and the condition changes rapidly. In such a condition, the qualification of the experts is very important. The support of the experts will promote the authority and credibility of the organization and in many cases could strengthen the decisions that are taken without going through the tedious and long drawn process.

The challenge is how the Regulatory Body could recruit experts with proper and adequate qualification. One of the strategies taken is by screening the potential human resources who previously have been working at technical institutions, such as in the Ministry of Public Works, PDAMs and others. However, it is a fact that not all who have worked at PDAMs have the necessary skill and knowledge. What is needed is a balance between recruiting qualified human resources from related institutions or external consultants who are expected to provide new perspective and innovative problem solving.

Efficiency in Achieving Objectives and Fairness

The concept of efficiency means "do the things right". This means when a way or approach in problem solving has been decided,

efficiency means using correct instrument and methodology in implementing the approach. The company operational programs that are efficient certainly will enhance the credibility of the Regulatory Body.

Efficiency is also needed so that organizational work plans could be in harmony with existing laws and regulations, as long as the laws are in line with the need of improving the drinking water performance to the consumers. The approach to meet the existing regulations sometimes involves the use of large number of staff in managing large amounts of information under a very "command and control" environment. However, there is an alternative approach, namely self-regulation, which in this case needs detailed information and sound knowledge management. The challenges related to the "what if" case, because in fact it is difficult to predict the results that can be accomplished by using the new approach. The challenge is also on how to recognize whether a regulation is in fact effective as a development instrument, The results of work that are efficient should be reflected in the operator performance, in term how the technical targets and service standard as set out in the RCA could be achieved each year. The challenge is how institutional capacity could continually be developed in measurable and sustainable way. For this, periodical monitoring and evaluation need to be undertaken. Farther effort needs to be taken. especially to determine whether the agreed technical target and service standard are in line with the dynamic and increasing need of the consumers.

Benchmarking, referring both to nationally and internationally, in its operations plays important role in improving efficiency and stimulate market forces for the operators. The formulation of benchmarking system conducted by PERPAMSI hence becomes important, especially in bridging the differences of problems and physical condition, economy and institutions between the west part and east part of Jakarta.

The regional and international network with the Regulatory Body are also important, first in promoting information exchange, sharing of information from each difference context, which allows them to operate under the appropriate best practice that could be applied in their respective service area.

To ensure fairness to both operators and consumers, the following methodology and mechanism are being carried out:

- The operators' interests need to be clearly identified through more independent manners. This endeavor is not yet properly implemented fully, among others due to the overlapped of functions, role and authority between the Regulatory Body and PAM Jaya;
- Regular public meetings are also conducted intensively (through FKPM and KPAM). These forums are very useful in capturing customer complaints, and making possible direct interaction and response from the operators with regard the complaints;
- c. The Regulatory Body in close collaboration with the independent surveyors has completed the customer satisfaction surveys for the years 2003, 3004, and 2005 in order to capture:
 - The level of existing service
 - Types and natures of complaints
 - Consumers expectations for service improvement.

Relation and Coordination with Key Stakeholders

Coordination among related agencies and institutions is very important. This process needs to be continually pursued for the realizing integration, both horizontally as well as vertically. It is important that key stakeholders could together move toward the same direction in achieving the agreed objectives.

Meanwhile, with the view to clarify the differing views and to obtain common understanding, the capacity building? advisors to the JWSRBhave also held various discussions with PAM Jaya, Palyja, dan TPJ, to addressing several aspects of the regulator's functions as viewed by the parties. The authority of the JWSRB as stipulated in Clause 51.1. and 51.2. of the RCA are still limited and the mandate stated in the Governor Regulation No. 54 Year 2005 needs further clarification.

Legal Framework

With respect to the aspect of laws and regulations, the establishment of the JWSRB is in line with the provisions stipulated in the Minister of Home Affairs Regulation No. 23 Year 2006 regarding Technical Guideline and Procedure for Tariff Setting of PDAMs. This is stated by the Director of Administration and Local Revenue of the MOHA, Fauzie Rafei, during the discussion on clarification of MOHA Regulation 23/2006's provisions, Monday, May 14 2007 at the Ministry of Home Affairs office. He stressed that the JWSRB has been given mandate by the Governor Regulation.

MOHA Regulation 23/2006 includes a number of issues, namely role of the Regulatory Body, category of new customer grouping, water provider besides PDAM, agreement with private business entity, public consultation prior to tariff adjustment, the case of Jakarta water supply, the legality of the cooperation agreement in relation to the issuance of the MOHA Regulation, special case of Jakarta, mechanism on tariff adjustment proposal.

One of the weak points of the MOHA Regulation 23/2006 is that its substance is treating equally the same for all management of PDAM in Indonesia without accommodating the specific condition of the provision of water service in Jakarta. The aim of the said regulation is to facilitate PDAM ini submitting tariff proposal without having to have endorsement from the DPRD, such as was previously applied. The new customer category was simplified into three groups and in addition there is only two consumption blocks designed to protect the water resources from consumption above the standard basic need, that is 60 liter per capita per day. The progressive tariff will be applied to those who consume more than the basic need standard. Fauzie Rafei said that this would make the consumers to conserve or consume water more efficiently. Public consultation should be conducted by PDAM in view to socialize the tariff adjustment and PDAM needs to empower the representative of the consumers. Regarding the KPAM (Water Consumer Committee) and Water Consumer Communication Forum (FKPM) which were already established in Jakarta can be made as a prototype for other PDAMs in Indonesia. With regard the tariff adjustment proposal, MOHA Regulation 23/2006 must be used as reference for tariff setting. Basically, the tariff proposal is submitted once a year in order not to cause additional burden to PDAM.

Relation with the performance achievement

In several discussions with the Capacity Building Advisors to the JWSRB in January 2006 at the JWSRB office, the Regulatory Body has submitted a "wish-list" when it is accepted it is expected to enhance its performance and implement its functions accordingly. At present, the JWSRB is viewed as not being able to maintain a balanced interests between the consumers and the operators, considering there are two differing views. The JWSRB views consumers as not having the proper protection in the contract agreement, whereas the operator is more oriented to project implementation (not public service), that is contractual aspects. In order to be able to carry out its functions and achieve the objectives, the JWSRB has made a wish list comprising data-based development system in order to able monitor the operator performance much better, without having to rely on the First Party in budget allocation, elevating its legal status (position) similar to PAM Jaya, ensuring transparency of the parties, obtaining more authority to enforcing decisions issued, and involvement in the rate rebasing process (water charge recalculation) from the "upstream to downstream" activities.

At the executive meeting in April 2006, the Chairman of the JWSRB, Achmad Lanti, proposed the need to issue report card on the operator performance and the JWSRB, facilitate the rebasing process, conduct joint customer satisfaction survey, and improvement of water service before IATA 4-2006 in July 2006. These issues were raised to accommodate consumer complaints on poor service and also to avoid the same experiences that hindered the implementation of the cooperation agreement. In order to be balanced, in accommodating public aspiration and implementation of principle of good governance, the proposed report card will be imposed to the operators as well as the JWSRB. However, the operator requested that the definition of the items to be evaluated and the method of assessment should first be discussed in technical meeting.

Apprehensive of the past experience in the tedious and long drawn rebasing process, the JWSRB proposed to implement continuous monitoring in order to facilitate the subsequent rebasing process. In response to this, the operator proposed that the preparation of feasibility study be carried out jointly to preparing the common strategic issues, meanwhile special issues are implemented separately in accordance with each respective service area of the operator. The meeting agreed to involve the local government, Bappenas, Ministry of Public Works and the JWSRB to provide input in preparing the basic assumptions in the feasibility study.

In this opportunity PAM Jaya stressed that in accordance with the last agreement on LACA, besides the involvement of the two parties, the JWSRB should also be involved in all the future activities of the rebasing process.

The operator objected the idea to postpone tariff increase in subsequent semester 22006, because it will cause the cooperation agreement to a halt. This idea to postpone tariff increase was raised in response to the demand of the public that the operators should provide evidences of service improvement made before July 2006. Other issues discussed were consumers with zero consumption that are not billed, enforcement of rebate system, UfW reduction, treated and raw water purchase, investment program, and operator's financial profit/loss. It was also agreed that the activities before IATA 4, must be started in April and so forth and for this, the JWSRB will facilitate the implementation of the activities.

The Customer Satisfaction Survey, which is basically a field research with sound methodology, must be undertaken with the view to obtaining complete information regarding the customers' preferences. Based on the existing condition where each respective party carries out its own customer satisfaction survey, it was proposed to combine the survey so that the results could be used together in the socialization activity. This would be beneficial in forging better collaboration between the Regulatory Body and the operators. Based on the agreed Terms of Reference, it was proposed to conduct a joint survey, to be conducted once every 6 months. Meanwhile, a combined questionnaire is being prepared for finalization.

Realizing the importance of customer satisfaction survey and customer affordability survey, these two surveys have been undertaken by the Regulatory Body in collaboration with the Catholic University Atma Jaya at the end of 2007.

The analysis of Customer Satisfaction Survey was conducted by grouping satisfaction into two categories, namely satisfaction on technical aspect with 3 indicators (water quality, continuity of water flow, and water pressure), and service and technical support aspects with 9 indicators (meter reading, billing and complaint of no flow, easiness of customer communication, respond to complaints, respond and general complaint handling, respond on leakage in the main transmission pipe, complaint on water quality and time to install house connection).

Satisfaction on Technical Aspect: The majority of the customers felt satisfied and very satisfied on water quality, i.e. 77.33% and 7.52%, respectively. This showed that the consumer index satisfaction on water quality was 85%. However, there were still some water customer that were unsatisfied and very unsatisfied at 14.6%.

Satisfaction on Water Flow Continuity: Water continuity, which is a measure of time the water flows in a day, according to the survey satisfaction index was 71%, which was obtained from percentage of respondents answering satisfied 66% and very satisfied 5%. Almost one third of the consumers enjoyed piped water that flow for 24 hours a day (30%), and on average for 12 hours a day. However, in several areas, due to technical disturbances, piped water flows only for certain time of the day.

Satisfaction on Water Pressure: Water pressure is an important quality dimension because it determines how high water will flow into the customer building/house. Data showed that satisfaction index on water pressure was 64%. Whereas, respondents answering not satisfied was 34%.

Satisfaction on Service and Technical Support Aspect: Respondent satisfaction index on 9 service and technical support aspect varied considerably, with the highest satisfaction on meter reading and water billing which reached more than 80%. Other parameters, showed satisfactory index of about 35% to 50%, they were for respond to complaint, complaint handling, easiness of communication, time to install house connection. Whereas, the most unsatisfactory parameters included respond to complaint, complaint handling and easiness of communication with an index of 28%. This showed that the performance of operator personnel directly involved at the customer front office still very unsatisfactory.

Top Priority Issues

The optimal role of the JWSRB and effective performance of its functions are important to support the performance of the DKI Jakarta Government, especially in the provision of drinking water. Related to the authority of the JWSRB, it was discussed in the Round Table meeting, held as part of the capacity building program, on Thursday, February 2, 2006, at the City Hall. In the meeting four main agenda were discussed, namely status and function, customer relation and key performance indicators, strategic planning, and financial aspects. About 50 participants from the Local Government, Ministry of Public Works, NGOs, professional associations, universities, public accountant (auditor), and related government agencies participated in the one day meeting.

In the meeting, the Chairman of the Regulatory Body, Achmad Lanti, raised top priority issues to be addressed further as a commitment list. Among them, performance monitoring based on reliable data from the operators and the possibility of applying sanction to the operators that failed to achieve its performance based on the agreed benchmark. Regarding the tariff setting, it was proposed that the Regulatory Body be given ample time to conduct its analysis by reviewing the calculation of water charge and other cost components. Each decision taken that will have an impact to public interest should be communicated to the public intensively through two-way communication. Openness is an important matter and thus, it needs to be improved by providing regular information and informing the public where they could resolve their complaints and problems. Benchmarking dimension on service quality should be conducted by the Regulatory Body as well as the operators.

The Round Table meeting focused on four topics presented by the Advisory Capacity Building Team, in which each aspect (topic) addressed issues and problems faced with respect to the role and functions of the Regulatory Body, notably legal authority and status, strategic management, benchmarking, communication, and finance. These topics were further discussed in group discussions, consisting of government, NGOs, and water providers.

In a separate opportunity, during the visit of the DPRD delegation of Semarang Municipality to PAM Jaya office on April 2006, it became an opportunity to make an evaluation on the implementation of the RCA and work performed by the operators.

The delegation was received by the President Director of PAM Jaya, Haryadi Priyohutomo, who gave an explanation on utilization of ground water and tariff, application of service minimum standard, role of legislative body in tariff setting, retirement fund for PDAM personnel, leakage reduction program, enforcement of regulations, conservation of water resources, write-off of old billings, etc.

In other occasion, an Executive Meeting of the DKI Jakarta Government held in early July 2006, at the City Hall, discussed the performance of the operators which stressed on technical targets. The meeting was also attended by resources persons from the Regulatory Body and PAM Jaya.

- With respect to Technical Standard, the realization of Unaccounted for Water (UfW), which was very high compared to the target stated in the RCA;
- 2. For the Zero Consumption during 30 days period (one month), the JWSRB recorded a significant number, that is 110,000 customers (14.28%) and Zero Consumption during 3 months time suffered by 11,300 customers. In this case, the JWSRB noted that these customers received no water at all, however the operators still billed and fined them.
- 3. With respect to Billing System, the JWSRB found cases that were disturbing to the customers, that is Old (Expired) Billings (1-5 year old) which were billed again by the operators including its fine. There was a strong indication that this issue is closely related to the weak administration of bad debt in addition to the weak data management. The fact is that there is no clear regulation as to who is responsible to manage the information and resolve customer bad debts. Is it the responsibility of PAM Jaya or both parties?. The main problem behind this issue is the existing Local Regulation (PERDA) that does not allow possibility for PAM Jaya to write-off bad debts. Thus, the effort to amending the existing PERDA by referring

to the National regulation on the same subject would be a strategic step in the future to resolve the long drawn issue.

These issues, whatever they may be, are closely related to IATA. The requirement of IATA must refer (comply) to the Governor Decree and Governor letter which stress that the operator must show its performance and improved service before the facility is granted. If not accomplished it is then possible to apply rebate on water charge. In its development, this idea could not be accepted by both parties, especially the concessionaires, to be included in the LACA. In other words, prior to approving tariff adjustment not only based on micro economic consideration but also the factor of service improvement should be taken into account.

From the JWSRB's analysis in studying the four points mentioned above, hence the JWSRB recommended to the Governor not to implement Automatic Tariff Adjustment (ATA) IV, which according to the schedule will be effective as per July 1 2006, dan in the next 6 months time the JWSRB supported by the Water Customer Committee (KPAM) will monitor the operator performance to the consumers, whether it shows improvement or otherwise?. The Governor finally approved the JWSRB's recommendation by rejecting the tariff increase and urged the operators to immediately improve its service, especially in reducing the water leakage which is already very high.

The Governor also asked that all related parties to give support to the operator in reducing the relatively high water leakage, and assign PAM Jaya to:

• Ensuring the operator to accept one of the clauses on LACA that the IATA requirements must comply with the Governor Decree and Governor letter, which stress that the operator

must show its performance and better service before such facility is granted. If not accomplished it is then possible to apply rebate on water charge. However, until to date this issue isstill debated by the operators.

• Asking the operators to agree to operational audit on a number of strategic factors. Such operational audit is mandatory in other countries abroad.

Service Standard

The service standards set forth in the cooperation agreement are: (i) pressure at customer water tap; (ii) customer service; (iii) routine interuption on distribution network; (iv) new connection; (v) water quality. Pressure at customer water tap is set at 7.5 meter that must be met at the fifth year of the RCA for the whole of DKI Jakarta area, except Pluit, dan for the whole Jakarta area in year 10 of the implementation of the cooperation agreement.

Customer service is set according to the response to customer complaints from the operator or report by customer experiencing water service interuption as following:

- All calls to be answered within 30 seconds
- Response to complaints regarding burst main within 2 hours
- Response to complaints regarding no water within 4 hours
- Response to complaints regarding water quality within 6 hours

Whereas, new connections should be made within average one working day after payment and all necessary document have been completed by the customer

Following receipt of all relevant permits, repair shall be completed within the following time period:

- Tertiary pipes up to 100 mm under normal conditions within 6 hours, under difficult conditions within 24 hours
- Secondary 150 mm-250 mm under normal conditions within 12 hours, under difficult conditions within 24 hours
- Primary pipes 300 mm-450 mm under normal conditions within 24 hours, under difficult conditions within 48 hours
- Primary pipes 450 mm and over, under all condition within 72 hours

Water Charge Issue

The concessionaires (Palyja and TPJ), entered into cooperation agreement for 25 year period with PAM Jaya in 1997, shall carry out the management, operation, and maintenance and development of clean water supply system in the Province of DKI Jakarta. The concession is divided into two service areas, namely Palyja for the west Jakarta and TPJ for the East Jakarta, separated by Ciliwung River as boundary. The main objective of the project is to attain selffinancing, financially viable for all parties as achieved through average tariff each respective service area; meanwhile the level of tariff for every customer shall be determined in accordance with people affordability.

The Cooperation Agreement has been amended in October 2001, because of tariff freeze applied during the time of economic crisis in mid-1997. The amended Cooperation Agreement or Restated Cooperation Agreement (RCA) contained mechanism for tariff adjustment during the life of concession. Tariff adjustment could be made every year or at an interval as stipulated in the laws and regulations based on the agreement of both parties. PAM Jaya shall submit the proposal for tariff adjustment to the Regulatory Body for its analysis, and then submitted to the Governor of DKI Jakarta for approval; and the DPRD shall perform post audit function. Beside tariff, the RCA also set forth detailed provisions on the payment that must be provided by PAM Jaya to the concessionaires for their investment and service, which is called water charge.

Clause 27.2. c of the RCA stated that the water charge must be agreed from time to time by all parties after review of Financial Projection by taking into consideration among others the following parameters: (i) average tariff paid by the customer and average tariff for DKI Jakarta; (ii) the Regulatory Body financial requirements, PAM Jaya (the First Party Primary Requirement and the DKI Jakarta requirement; (iii) past expenditures of the Second Party duly incurred under the Cooperation Agreement and amounts previously paid to the Second Party, (iv) the projected expenditure to year 2022, consisting of projected demand and revenue, projected financing costs, and tax and depreciation., (v) profitability of the Second Party, (vi) minimum coverage ratio and other ratios and parameters as set forth on the Financial Projection and stated in Schedule 6.

Clause 27.3 of the RCA further stated that the Financial Projection for the subsequent period shall be prepared and agreed by the parties based on the Feasibility Study and Investment Program.

In the implementation of the RCA, the concessionaires seek fair profit with specific IRR for investment and services provided, and also technical target and service standard achievement and as set forth in the RCA. Technical target and service standard including volume of water sold, level of water losses, service coverage ratio, new connection, a minimum water pressure at customer tap based on the RCA's objectives. One of the main issues is how to attain agreement on the amount of water charge, i.e. the payment by the First Party to the concessionaires for their investment and services. The new based water charge (C_0) for every subsequent 5 year period is recalculated based on the Financial Projection that must be prepared and agreed by the Parties based on Feasibility Study and Investment Program (for the related subsequent period as stated in Clause 24.2, including Technical Target and Service Standard for the related subsequent period and parameters set forth in Clause 27.2).

The rebasing process was very complicated, which in the period 2002-2007 caused the process to become long drawn. After the transition period at the end of 2002, there were no agreement reached yet between the two parties on the new parameters, which would be used as input for the formulation of Water Charge and Water Tariff for the second five year period to December 2007. Upon request from the Jakarta Provincial Government, in November 2003, the Ministry of Public Works in collaboration with ADB provided financial assistance for consulting service, which is knows as the ICE (Independent Combined Expert) Team. The ICE Team is paid by the ADB fund borrowed by the Central Government. The main task of the ICE Team is to provide an independent opinion on the magnitude of the Water Charge and Water Tariff, and also including the determination of real and reasonable operational expenditures and shortfall of the operator. However, the result of ICE Team report, which was completed in February 2004, could not be accepted by the Parties, including also by the Regulatory Body. In early April 2004 to end of April 2004, a joint team was formed, with members consisted of representatives form the Provincial Government, and Ministry of Public Works to evaluate the reliability of the ICE Team report. Professionally, the ICE Team has managed to reveal the problems in a more specific and quantitative way. In accordance with the existing problems, it was recommended

that the problems, which will be discussed, will focus on 4 major points, namely Technical Target, Capital Expenditure (CAPEX), Operation Expenditure (OPEX) and Financial Model.

The water charge rate rebasing can be affected by various constraints and conditions, such as differing approaches used (customer service vs investment and operation costs), tariff based on affordability, tariff setting by the Jakarta Provincial Government, differing problems in each respective service areas, tariff freezing during the economic crisis (1998-2001), expertise costs, transfer of PAM Jaya employees, technical assistance, and others.

The concessionaire is paid from water revenue, which is also used for the financial requirement of PAM Jaya (including debt payments to the Ministry of Finance), financial requirement of the Regulatory Body, and Local Government. The payment to the concessionaire is paid in the form of water charge (Rupiah/m³).

Considering the complexity of the problem, the period 2003-2007 rebasing has been just completed and agreed through mediation by the Regulatory Body, that is for Palyja in December 2004 and for TPJ in October 2005. The concessionaire is paid from shared revenue, which is also used for financial requirements of PAM Jaya, Regulatory Body, and the Jakarta Government. The payment to the concessionaire is given in the form of water charge (Rp/m^3) . The water charge to the concessionaire is paid from the Escrow Account in terms of billed and collected water volume times water charge/m³ based on the monthly printed Customer account. First each month the concessionaire is obliged to submit billed and collected water volume and its detailed printed account data and paid account from the customers (printed data base revenue, and master payment and master restitution) for evaluation and verification by PAM Jaya.

Water Charge Adjustment

Based on Clause 28.4 of the RCA, New Base Water Charge will be adjusted at start of each semester for the entire period, in accordance with the water charge indexation formula:

$C_{n} = [C_{o} x \{F_{n x} G_{n} + H_{n} x O_{n}\}] + K_{n} + K_{in}$

Basically the water charge indexation serves to protecting the investors against inflation risks $[C_o \times \{F_n \times G_h + H_h \times O_h\}]$, foreign exchange fluctuation (K\$n) and variation of interest (Kin). In accordance with the principle of self-financing stated in the RCA, hence all risks in principle must be covered by water tariff.

Private Loan

To finance the initial investment, the concessionaire in addition to paying the capital also used foreign loan so that when the crisis happened it has affected very significantly on the cooperation project. With the inclusion of K\$n factor in the water charge indexation formula, it is in fact for the subsequent period the concessionaire has already been protected against foreign exchange fluctuation. However, it has become a separate problem when the revenue from the water charge in the form of rupiah, so that the concessionaire has the opinion that refinancing the foreign exchange by rupiah loan instrument would be safer, even though there would be other consequences.

Automatic Tariff Adjustment

In view to attain self-financing and protecting the interest of the consumer/customer and at the same time to protect the interest of the parties, hence by the written agreement of the Chairman of the DPRD of the Province of DKI Jakarta No. 550/-.1.778.1 dated July 23 2004, the Governor of DKI Jakarta issued a Decree No. 2459/2004,

dated October 2004 on the Automatic Tariff Adjustment (ATA) for the DKI Jakarta, made effective on January 1, 2005 and for every subsequent six months until end of 2007.

The tariff formula according to the decree is as follows:

$\mathsf{T} = \mathsf{C}_{\mathsf{n}} + \mathsf{K} + \mathsf{R}$

Where,

- T : Average tariff of DKI Jakarta
- C_n : Water Charge at the n period (subsequent semester) in accordance with the indexation formula stated in the RCA and based on banding criteria that must be agreed upon by the Parties for every subsequent semester, by taking into consideration performance factor in the form of rebate against the possibility of C_n adjustment, with respect to the level of fulfillment of previous semester average tariff.
- Financial requirement of the First Party, including in it's the debt repayment, Ministry of Finance (MOF), Local revenue, and financial requirement of the JWSRB
- R : Reserve, in accordance with the requirement, including for past shortfall payment, TBD (To Be Determined), Golden Handshake, etc.

In its implementation, when submitting tariff proposal to the Governor, the Regulatory Body first must conduct analysis among others by taking into consideration customer affordability, so that tariff adjustment awarded is not always as high as requested by the concessionaire. In fact, adjustment could not be realized every semester during the period January 1 2005 to end of 2007, among

other because after several tariff adjustments, the water tariff in DKI Jakarta was already the highest in Indonesia, even among several countries in Southeast Asia. This was stated by the Minister of Public Works to the Governor of DKI Jakarta at post implementation of ATA-3 through its letter dated February 23, 2006. According to the letter average water tariff per m3 in DKI Jakarta at that time is equivalent to USD 0.7, whereas in other countries, such as Singapore USD 0.35 (potable water), Philippines USD 035, Malaysia USD 0.22, and Thailand USD 0.29.

Meanwhile if compared with average water tariff in several cities in Indonesia, based on data from BPPSPAM (Support Agency for the Development of Water Supply System Provision) Semester I.2007 is shown in following graphic.



Issues of Shares Ownership Transfer

The decision of the Palyja (Suez Environment) and TPJ (Thames Water Overseas Limited/TWOL) shareholders to sell their shares in 2006 has

made several members of DPRD DKI Jakarta pondering, and triggered critics from the public. Suez after buying 5% of the Palyja shares from PT Bangun Tjipta Sarana sold 49% of the shares to Astratel Nusantara (30%) and Citigroup (19%) in June 2006. Whereas, TWOL together with PT Tera Meta Phora in early 2007 sold 100% of its TPJ shares to Acuatico Pte. Ltd. (95%) and PT Alberta Utilities (5%). The owner of Palya shares considered the decision taken aimed to improve its management performance by engaging local partners, as distinguished from the TPJ shareholders who sell the whole shares to focusing investment of its core business in UK and selling all of its shares in other businesses in other countries. The provisions and in the RCA permit share sale by informing in writing to PAM Jaya as the First Party, if 51% or more of other shares are still owned by the old shareholders. In the case of TPJ selling 100% of its shares, it must first have to obtain approval from the DKI Jakarta Provincial Government through PAM Jaya as the First Party in the RCA.

At that time the DPRD viewed that the party buying Palyja shares (Astratel Nusantara and Citigroup) are the parties that have no experience whatsoever in the water supply sector. Also, during the TPJ shares sale process, the DPRD suggested that the sale of 100% TPJ shares be postponed, because there were doubts that in general the investors only seek profit/financial gain and making clean water as a business commodity.

The JWSRB has given its opinion to the Governor DKI Jakarta as follows:

Sale of Palyja Shares

 a. Contractual: In accordance with the Cooperation Agreement (RCA) Clause 7.2. (a) (ii), the sale of 49% of Palyja shares is permitted, however with the condition the Palyja Shareholders as the Second Party first submits written notice to the First Party, that is PAM Jaya on the intention of the share transfer.

- b. The actual fact: Palyja shareholder has not yet submit written notice, only a letter from the President Director of Palyja, which did not mention its intention to transfer (sell) the shares.
- c. Conclusion: Contractual wise it is permitted, but in term of compliance to the RCA there are still lack administrative requirement, in addition considering the purchase from the Third Party will not cause ownership of shares by the old shareholders less than 51%, hence permit from the First Party will not be necessary.

Sale of TPJ Shares

- a. Contractual: Shares transfer of more than 51% by the Second Party shall first have written approval from the First Party: PAM Jaya, and if it is realized, the new investor shall still be under the professional management with expertise in the water business, which is reasonably acceptable to the First Party.
- b. The actual fact: With respect to the planned transfer of more than 51% of shares, the Governor has requested the JWSRB to prepare the Terms of Reference (TOR) for the due diligence process on the TPJ technical and financial performance.
- c. In its development: 1) The TOR due diligence first would have to be consulted to the TPJ shareholders, prior to submission to the Ministry of Public Works for its implementation. 2) Due Diligence must be carried out by truly independent parties in order the result and sell price of TPJ are truly objective. 3) a short list of prospective investors with the required expertise, commitment and financial capacity, first approved by PAM

Jaya, needs to be prepared. 4) The best selling price of TPJ shares in the interest of the old as well as the customer.

d. Finally after the due diligence process, involving the Ministry of Public Works, Chairman of the JWSRB and the World Bank and PAM Jaya, the DKI Jakarta Governor approved the sale of TPJ shares to Acuatico with a number of prerequisites (requirements/condition) among which are the amendment of RCA aiming for an equitable contract.

KPAM (Water Customer Committee)

KPAM is basically an independent institution, which has the function to represent the customers in the DKI Jakarta water supply service provision. Its executive members are elected from among the customers itself. It can be said that KPAM is an NGO, with its work program focusing on the customer interest (protecting the interest of the customer). With the establishment of KPAM the customer is expected to have direct access to the program and decision making process in the operator as well as in the JWSRB. KPAM is expected also to assist the JWSRB in understanding how the situation and the problems on the ground., Thus, it is expected the decision and policy taken by the JWSRB as well as operators could be take into account the facts in the field.

The process of the establishment of KPAM is initiated in January 2002 through Customer Communication Forum of FKPM. The members of the Group West and Group East who are originally members of Kelurahan Council or Dekel agreed to form Water Customer Committee in DKI Jakarta. Since October 2002 to the end of February 2003 those Dekel from the five municipalities in DKI Jakarta organized the establishment of committee directly and democratically among the customers in their respective areas.

KPAM then is divided into five committees, according to the five municipalities in Jakarta, namely:

- Members of KPAM of North Jakarta
- Members of KPAM of West Jakarta
- Members of KPAM of Central Jakarta
- Members of KPAM of East Jakarta
- Members of KPAM of West Jakarta

In its process KPAM played heavily in bridging the dialogue between the JWSRB, operator, and the public. KPAM endeavored to facilitate complaints from the public and public aspirations in order to obtain respond and action from the authorities, in this case the operator, with the support of the JWSRB. This was carried out through socialization forum at the kelurahan level as well as Joint Working Group meetings hosted by the JWSRB. From the problems reported by KPAM to the operator, some problems received respond, however, there are more problems that have not been resolved appropriately.

The key related problem linked to the role of KPAM among others are effectiveness of the dialogues and performance in building the partnership process (collaborative process) which is still weak, the limited financial condition, lack of managerial competency and inadequate institutional capacity. Other constraints are cooperative scheme (arrangement among the institutions and cooperative framework which are insufficient.

In the future KPAM must function more vocally in strengthening the public participation and developing dialogues with the public. KPAM is also expected to contribute significantly in implementing the mechanism of check and balance based on the dynamic of the customer interest, and maintain in order the institutional process that is occurring in the long term could provide more benefits to the public.

In addition, KPAM should also develop its potential in voicing the importance of access to clean water that is fairer, especially for those of the poor households and the informal sector. In this case, of course, adequate strategic framework would be needed, strengthening of physical infrastructure, sustainable human resources development and adequate and continuing financing sources.

Comparison of Service and Performance

PDAM Tirta Pakuan Bogor Municipality

The JWSRB on Wednesday, August 2, 2006, has made a study visit to PDAM Tirta Pakuan Bogor, West Java, with respect to its accomplishments of PDAM Tirta Pakuan Bogor in reducing the level of water losses to 31% (an ideal level in the management of the water service provision of PDAM).

This was revealed by the JWSRB Chairman, Achmad Lanti, during the discussion with the Board of Directors and managers of PDAM Tirta Pakuan Kabupaten Bogor. Achmad Lanti stated that in DKI Jakarta the concessionaires, PT Palyja and TPJ, have not been able to reduce the already high water leakages which is approaching the level 51%, as such the JWSRB is pursuing to learn how PDAM Tirta Pakuan manage to improve its water delivery and reduce leakage.

In his presentation the Technical Director of PDAM Tirta Pakuan Kabupaten Bogor, Syahban Maulana, stressed that its institution has for a long time address the issue of water leakage seriously, its institution also have programs and specific solutions in tackling the physical as well as commercial losses, namely by conducting 24 hour

non-stop evaluation of water flow from the treatment plant to the customer tap, undertaking rehabilitation of old pipes, maintaining water pressure, supplying raw water system, constructing supporting facilities and infrastructure, for example: refining As Built Drawing, GIS, supplying other additional technical support equipment. For non-physical leakage it must be supported by strong commitment from all level of management, among others are by replacing water meter, and ensuring reliability of meter reading in the field.

Furthermore, Syahban Maulana, added that in implementing the system the operator must dispatch a team directly to the location where the leakage occurred, for which no state of the art technology is used, or even special strategy. PDAM Tirta Pakuan also promoted public and customer participation to make report regarding all types of leakages in its service area. PDAM Tirta Pakuan relatively has adequate water pressure due to its gravitational flow from water sources originating from spring sources in the mountain and also Cisadane River located up hill.

Comparison of Jakarta water service and Bogor water supply system could not be said as apple to apple comparison, since the condition of two cities are quite distinct from each other. However, this illustration showed that there is room for improvement for the Jakarta water supply system in enhancing its service quality.

Cities in Australia

With respect to the capacity building program of the JWSRB through the World Bank technical assistance funded by the Dutch Trust Fund, two members of the JWSRB, Achmad Lanti and Agus Kretarto, and Alizar Anwar as consultant have made study visit to Australia for one week duration from 12-19 February 2006. The visits were made to the Independent Pricing and Regulatory Tribune/PART Office in Sydney, Essential Services Commission/ESC in Melbourne, and Economic Regulator Authority/ERA in Perth.

From the study there were several differences regarding the operation of the water system and key indicators between the JWSRB and IPART, ESC, as well as ERA. In Jakarta, the operation of the water supply system is carried out by concessionaires based on concession agreement, whereas in Australia there were no private sector involvement in the form of concession, and its operation is managed by federal state owned corporation, since the operation of the water supply system concerns with basic need. The scope of services in Australia comprise drinking water supply, sanitation, irrigation, flood control and drainage with service ratio of 100%. The drinking water tariff per m³ in Perth is Rp. 6,354, Melbourne Rp. 6,007 and Sydney Rp. 9,875 which can be consumed directly (potable), whereas in Jakarta is around Rp. 7,025 as clean water. In Australia only one instrument is applied for the payment, namely water tariff only (because there is no private sector involvement), whereas in Jakarta two instruments are applied, notably water charge to the operator, whereas water tariff is charge to the customer/consumer.

Regarding the institutional aspect there are also differences with respect to status, role and functions. In general, the status of regulator in Australia is independent, which is established by law, whereas the JWSRB has a semi independent status established by the Governor regulation. The level of transparency in Australia is very high. In Jakarta the present RCA has public transparency limit, which is very low, because of the confidential clause in the Cooperation Agreement between PAM Jaya and concessionaire. The sectors involved in Australia are electricity, gas, water and transportation. In general, in Australia the operating license is issued for public service.

Other interesting points are concerned with the process of tariff determination. The regulator in Australia in general has the authority to set tariff, except in Perth where the regulator proposes water tariff by first obtaining responses from the public prior to final tariff setting by the government. The role of the public in Australia is very significant with an open submission mechanism from the public with regard the tariff proposal. In addition, water tariff setting undergoes 2 years process, unlike that in Jakarta, which take only about two weeks time. Terms of service of the regulator in Australia is for five years period with staff between 26 to 70 personnel. The budget allocated is quite high around 9 to 16 million Australian dollar, whereas the JWSRB is only 550,000 AU\$.

In addition. In Australia the provision on operational audit beside financial audit of operator has been stipulated clearly in the law and regulation, and its cost is budgeted as regulator cost. Hence, the operator performance could be clearly accounted for to the public. Meanwhile, in the RCA in Jakarta concerns only with financial audit.
Chapter 5 Post RCA Service Performance

One of the functions that must be implemented by the JWSRB as stipulated in Article 4 of the DKI Jakarta Governor Decree No. 95 Year 2001 is to monitor rights and obligations of the parties as stipulated in the RCA (Restated Cooperation Agreement) and its addendum and supporting Agreement. With this regard the operator performance in delivering drinking water to the consumers in Jakarta represent an important component.

Evaluation in the cooperation project performance is carried out through evaluation of both parties (PAM Jaya and its two partners), however the focus is on the operators because their position which was awarded exclusive right to manage and operate water service in Jakarta.

The main object of the agreement in the RCA is on the provision and improvement of clean water supply service provision in Jakarta in terms of target and service standard as stated in Clause 20 and Clause 21 of the RCA-2001. The fulfillment of these technical targets is the obligation of the Second Party, and based on the contract the Second Party is exclusively responsible to determine the methods to achieve the targets using Good Operating Practices (GOP). Whereas, the right of the Second Party is the payment in the form of Water Charge in monetary value per cubic meter of water sold and billed to the customers. Meanwhile, from the customer perspective besides paying the price of water, they also have the obligation to pay for new connection, and each month pay fixed meter rent and administrative fee. The water price or tariff per m3 is determined by the Governor based on the JWSRB's proposal through the Automatic Tariff Adjustment mechanism or ATA. Clauses 20 and 21 of the RCA between PAM Jaya and its two partners include specific provisions with respect to operator performance. Clause 20 concerns the technical target and Clause 21 is about service standard. These two clauses concern with the achievement of technical performance of the operator.

Even though since the signing of the RCA on October 22, 2001, improvement of technical target and service standard were achieved, however compared to the agreed target at the commencement of the cooperation agreement the performance of the operator was still unsatisfactory, in addition there were also many complaints that were not resolved.

In accordance with the RCA, the performance of the operator are set through indicators in technical target and service standard.

Technical Target

1. Number of Customer/Connection

The total number of customers in Jakarta increased from 708,91 (Palyja 344,368 and TPJ 364.955) in end of 2005 became 777.999 (Palyja 398.507 and TPJ 379.480) at the end of 2008. This means that the increase of 8.87% (Palyja 13.5% and TPJ 3.93%). This shows that the total customer in Jakarta reached 97.8% of the target (Palyja 101.6% from the target and TPJ only 95.15%).

Regarding Palyja achievement, up to 2002 still have reached its planned target, but for the subsequent years Palyja experienced constraints in reaching its target, and only in 2007 and 2008 it has able to reaching the target.

Whereas for TPJ, it able to meet the target up to 2004, but in the subsequent years there were wider gap between the planned and actual target, which its peak in 2007. From these achievements, the performance of both Palyja and TPJ in meeting the number of customers is very significant.



Figure 6 Number of Customers/Connections (Palyja)



Figure 7 Number of Customers/Connections (TPJ)



Figure 8 Total Number of Customers/Connection (Jakarta)

2. Production Capacity

The total water production capacity in Jakarta in 2008 was 430,2 M m³/year (Palyja 163,589 M m³/year and TPJ 266,64 M m³/year). This production capacity has exceeded the target stated in the Finpro at 405,0 M m³/year (Palyja 157,48 M m³/year, TPJ 247,59 M m³/year) or 106.22 % for Jakarta (Palyja 96.12 %, and TPJ 92.3 %).

Regarding the achievement of water production , the fact that since 2004 Palyja and TPJ should have exceeded the target as viewed from a wider perspective. In other word, the water production has increased significantly, however on the other hand the rate of water losses is still high and the water reduction measure taken has not been effective, meaning there is an over production and management inefficiency, which at the end the consumers must borne its consequences.



Figure 9 Palyja Water Production Capacity



Figure 10 TPJ Water Production Capacity



Figure 11 Jakarta Water Production Capacity

3. Service Coverage Ratio

Based on the operator report, the service coverage ratio for Jakarta experienced an increased of 9.68% from 57.42% (Palyja 49.91%, and TPJ 66.45%) in Desember 2005 to become 63.58% (Palyja 61.85%, and TPJ 65.28%) in December 2008. The highest ratio was achieved by TPJ in April 2004 at 67.06%, whereas the highest ever reached by Palyja was in December 2006 at 55.49%.

In 2007, the service coverage ratio experienced an increase. In total, the service coverage ratio for Jakarta in 2007 was 62.21%. If this achievement is compared with the target stated in the RCA, where at the end of 2006 the target for Jakarta was set at 70.18% (Palyja 69%, TPJ 71.6%), then it the actual target reached by both operators are still below the planned target.

The service coverage ratio, which is up to 2008 is still being reported by the operator, must be revised considering that a number of parameters in the calculation of service ratio is far from the actual condition. For example, the parties still use the figure 7.6 persons per households to determine the number of persons served by one unit of house connection (HC)^{5.} The JWSRB has requested clarification to the parties regarding the use of this figure, because the data from the BPS (2005, 2006, and 2007) DKI Demography Office, Mott MacDonald (2007), and the JWSRB survey (2004, 2005, and 2006) the ratio per household is not more than 5.0 person per household.

The difference of 2.6 persons per household (7.6 - 5.0) has caused the ratio to be inflated at 52% from the actual condition. If it is calculated by using the actual condition and then taking into consideration the service coverage ratio by Bog Meter, hence the service coverage ratio for Jakarta up to the present would be around 42.92%. This big difference has the potential to cause bias when it is related to the

water balance and the future development planning of water supply system, especially when it is faced with scarcity of raw water.



Figure 12 Palyja Service Coverage Ratio



Figure 13 TPJ Service Coverage Ratio



Figure 14 Jakarta Service Coverage Ratio

4. Volume of Water Sold

The total volume of water sold in 2008 was 257,95 M m³ (Palyja 134,509 M m³, and TPJ 123,44 M m³) which is below the target in the Finpro of 287,84 M m³ (Palyja 134,31 M m³, TPJ 153,52 M m³). Even though the maximum ratio was achieved at the end of 2007, however the achievement is still far below the target in the Finpro. Volume of water sold achieved was only 85.32% (Palyja 88.67%, and TPJ 82.10%).



Figure 15 Volume of Water Sold (Palyja)



Figure 16 Volume of Water Sold (TPJ)



Figure 17 Volume of Water Sold (Jakarta)

5. Unaccounted for Water (UfW)

At the time Jakarta entered into concession agreement with two international firms in 1997 the water losses has already reached 57% of the total production. The concession agreement targeted the reduction of water loss or UFW in 2022 to reach 23.85%. But, during the first ten year of its implementation to achievement to reducing the UFW is still below the target as shown in the table below.

No	Year	Initial	Rebasing 1	Rebasing 2	Achievement
		Target	Target	Target	
		(%)	(%)	(%)	
1	1998	58.35			61.17
2	1999	54.79			57.94
3	2000	48.51			50.94
4	2001	47.15			50.78
5	2002	45.38			47.75
6	2003	43.50	44.65		45.26
7	2004	41.63	45.34		47.81
8	2005	39.76	41.75		50.36
9	2006	37.89	39.86		51.17
10	2007	36.02	37.99		51.01
11	2008	35.06	36.92	48.25	
12	2009	34.11	35.56	47.15	
13	2010	33.15	34.18	46.05	
14	2011	32.19	32.77	44.52	
15	2012	31.23	31.21	43.25	
16	2013	30.28	30.00	41.62	
17	2014	29.32	28.68	40.00	

Table Target of UFW Reduction

18	2015	28.36	28.05	38.37	
19	2016	27.40	27.29	37.00	
20	2017	26.45	27.01	35.62	
21	2018	25.93	26.74	34.44	
22	2019	25.41	26.50	33.37	
23	2020	24.89	26.24	32.24	
24	2021	24.37	26.30	31.14	
25	2022	23.85	26.29	29.93	

The reported cumulative UfW for Jakarta in 2008 was 50.20% (Palyja 46.46% and TPJ 53.72%). The minimum UfW for Jakarta was achieved in December 2006 at 48.8%, Palyja achievement in November 2007 was 44.63% and TPJ in December 2006 at 49.69%. The achievement in 2007 in fact was still far below the target in he Finpro of 41.7% for Jakarta (45% for Palyja and 38.6% for TPJ). As an additional information the maximum UfW achieved for Jakarta in March 2006 was 54.23% (Palyja 52.95% and TPJ 55.25%).

A number of sources revealed that the above targets were at the outset could not be achieved by the operators, but because the rebasing negotiation was dragging without conclusive result, which situation was causing the disturbance of the water service, hence the operators were prepared to accept these targets proposed by PAM Jaya, especially as penalty charged for failing to achieve the target⁶ is very small.

However, this does not mean that all parties remained silent. Dialogues and pressure from the DKI Jakarta Government, PAM Jaya, and the JWSRB to the operators, encouraged the operator to undertake innovative breakthrough to address the UfW crisis. Two examples showed efforts taken by Palyja and TPJ (which in 2008 has changed ownership and name into Aetra).



Figure 18 Palyja UfW



Figure 19 TPJ UfW



Figure 20 Jakarta UfW

Box 2

Permanent Area Pilot Project at Cengkareng

The Cengkareng Permanent Area Program (PA) is one of the pilot projects, which is successfully implemented by Palyja, with the objective to improve water services to the customers.

Prior to June 2005, in Cengkareng area, particularly in West Cengkareng, there were many complaints filed by the Palyja's customers with regard to the poor water supply condition in the area. Intermittent supply also happened in Taman Palem Lestari and Tegal Alur, North Jakarta.

By taking into consideration the condition of the area, Palyja carried out a number of activities which are part of the PA program. More than 10,000 customers surveyed, Palyja has identified 952 illegal users, compelted 3,000 complaints and rehabilitated 548 house connections which were not in accordance with the standard. Furthermore, Palyja replaced more than 2,000 water meter, repaired its meter boxes and rotated its meter readers. In addition, more than 5,000 meters are sealed and more than 500 leakage points, those seen as well those that could not be seen, have repaired.

In addition to the direct measure to the customers, activity to reduce water losses was also carried out in the pipe network in the area through increasing flow during day time and decreasing it during the night when the customers are not using water.

The result of those activities, which certainly was also supported by the installing pipe with diameter 800 mm in Daan Mogot Road, was that the customers receiving supply for 24 hour a day has increased to 80%, UfW decreased from 54.06 to 32.6%, allowing more customers to receiving better service. This is also supported from data on average consumption of 12.1 m^3 /household/month prior to the application of PA program at Cengkareng to increase to 18.2 m^3 /household/month after the PA program was implemented.

In 2007 Palyja has also carried out similar pilot project in 6 locations, out of the 36 existing permanent areas.

As a conclusion, the permanent area program is a strategic step taken by Palyja in meeting the target sated in the RCA, i.e. improve water sale and reduce leakages (UfW).

Box 3

PT Aetra's District Meter Area (DMA) Program

PT Aetra Air Jakarta (Aetra), formerly known by the name PT Thames Pam Jaya (TPJ), revealed its accomplishment in implementing the District Meter Area (DMA) in several location in its operational service area.

This program aims to reduce the level of water losses or is often called Non Revenue Water (NRW) in a number of targeted areas, and, since 2004 Aetra aggressively has carried out its DMA strategy in its operational service area in east Jakarta. At present Aetra has successfully operated 134 DMA (m 2008) where 92 DMAs among others have been fully developed.

In order the DMA in the Aetra's service area are fully developed, thus a number of activities need to carried out among others, such as: flow reading during the night time, active leakage detection and leakage repair, pressure management, pipe network disconnection and replacement.

From the DMA activities above, at the end of 2007 Aetra has managed to "save" at least 114 liter/second of clean water, or about 54 liter/.second higher than its cumulative target up to 2007. Furthermore, by implementing the DMA strategy in a number of service areas, Aetra has successfully "saved" a total of 653 liter/second since 2004.

At the end of 2007, at least 36% of the total service area TPJ has been managed by DMA strategy, and even in areas that its DMA status has been fully developed, the level of Non Revenue Water has decreased to an average of 38%.

Comparison of Performance with Asian Cities

Discussion on comparison of achievement of drinking water service performance between Jakarta and several other cities in Asia is truly needed so that it could be viewed from a wider perspective. This discussion is also beneficial to know how the position of Jakarta in its drinking water service provision for its residents compared with other cities in Asia, where its economic development is relatively similar. This is in line with the concept of benchmarking, where the condition of Jakarta is considered as its baseline. As such, information on the extent of the existing gap could be obtained between the condition in Jakarta with other cities in Asia. Hence, it is expected that we could draw lessons for the result of the program and performance achievement, as best practice as well as the opposite, that are occurring in other countries. This discussion is mainly highlighted from the researches published by the Asian development Bank (ADB) in its paper entitled " Small Piped Water Networks: Helping Local Entrepreneurs to Invest (2003)."

In this discussion a number of cities used as comparison for Jakarta, namely:

- Cebu (Philippines)
- Delhi (India)
- Dhaka (Bangladesh)
- Ho Chi Minh City (Vietnam)
- Katmandu (Nepal)
- Shanghai (Republic of China)
- Ulaanbaatar (Mongolia)

The followings are brief profiles of the demographic condition of the above cities:

Demographic Profiles of Selected Cities in Asia

(122 2000)								
City	Jakarta	Cebu	Delhi	Dhaka	нсмс	Kathmandu	Shnaghai	Ulaanbata
Country	Indonesia	Philippine	India	Bangladesh	Vietnam	Nepal	RRC	Mongolia
Population (mio)	8.35	0.655	13.8	10.5	5.3	1	13	0.74
Population Growth Rate (%)	2.4	1.6	3.8	4.2	1.3	6	<0	4.5
Size (km2)	660	326	1483	360	2095	100	6340	3450
Density (pop/km2)	12.620	9.26	9300	95.3	2520	17.57	2050	13.3
Ave. GDP (\$/yr/capita)	366	400	810	630	720	573	2000	440

(ADB 2003)

One of the key indicators in the quality of drinking water service provision is the level of service coverage and the availability of water. The table below describes the comparison of Jakarta with the other cities in Asia with respect to those aspects.

Country	National GDP	City	Coverage (%)	Supply	
	(\$/capita)			Continuity (%)	
Central Asia					
and East					
Japan	33550	Osaka	100	100	
PRC	960	Shnghai	100	100	
PRC	960	Vhengdu 83		100	
PRC	24750	Hong Kong	100	100	
Uzbekistan	460	Tashkent	99	100	
Southeast Asia					
Malaysia	3540	Kuala Lumpur	100	100	
South Korea	9930	Seoul 100		100	
Philippines	1020	Manila	58	88	
Indonesia	710	Jakarta	Jakarta 51		
Mekong Region					
Vietnam	430	Ho Chi Minh	84	75	
Republic of	310	Vientiane	63	50	
Laos					
Camboja	280	Pnhom Penh 84		100	
South Asia					
Sri Lanka	840	Kolombo	69	60	
Pakistan	410	Karachi 58		0	
India	440	Delhi 69		1	
Bangladesh	360	Dhaka	72	0	
Nepal	230	Kathmandu 83		0	

Table 3 Service Coverage and Water Availability in 18 Cities in Asia

From the table above its could be observed with regard to the clean water supply continuity, Jakarta with a level of 92% (ADB) is relatively better compared with other cities in Southeast Asia. The condition of Jakarta is still better than Manila (88%), Ho Chi Minh City (75%) and Vientiane (50%), however it is still below Kuala Lumpur (100%) and Phnom Penh (100%).

On the other side, it could also drawn from the table above that the Jakarta performance in the case of coverage (at that time with the level of 51%, (ADB 2003), and in 2007 has reached 60.21%) in fact lagged behind from other cities in Southeast Asia, even with the city with lower economic development. Ho Chi Minh City (84%) and Phnom Penh (84%) or even Vientiane (63%) and Dhaka (72%) for examples, which in fact have higher coverage. Even if compared with other cities with economic development more advance, in the case of service coverage Jakarta is far lagged behind compared to Kuala Lumpur, Seoul, and Shanghai, which have reached service coverage with a 100% level. And, it is unfortunate that up to this time there is no clear roadmap and strategic planning for Jakarta to say the least, it would take several decades to reach the desired level of coverage.

It was also stated that in 2015 access to clean water supply will still become a crucial issue, faced by Jakarta. Based on the present condition, with a population growth of 2.5% per annum, and rate of existing new connection about 50,000 unit per year could be installed. Based on this trend, up to year 2015 it is predicted that there would be still be about 31% of the total population that would not have access to piped water system. As such, there is an improvement from the level 51% in 2022 (ADB 2003). This means that up to 2015 there is still 4.3 million people in Jakarta that have no access to piped water system, the figure is indeed lower compared to the present condition totaling 5.4 millions. This condition of course has not yet taken other

consideration, i.e. those who have chosen not to use piped water system.

Condition	City	Coverage	Service	Alternative	Income
of Clean			Rehabilitation	Sources	vs
Water					Service
Service					Cost
1	Shanghai	High	High	Low	High
2	Delhi	Medium	Low	High	High
	Dhaka	Medium	Low	High	Medium
	Katmandu	Medium	Low	High	High
3	Cebu	Low	High	Medium	Low
	Ho ho Minh	Low	High	Medium	Low
	City	Low	High	Medium	Low
	Jakarta				
4	Ulaanbaatar	Low	Low	Low	Low

Tabel 5 Condition of Clean Water Service in 8 Surveyed Cities (ADB, 2003)

The above matrix is very helpful to understand the position faced by Jakarta compared to other cities in the performance of clean water supply provision. In the case of coverage in Jakarta it can be identified as low, improvement of service high, alternative sources medium and affordability low. The condition is Jakarta is viewed similar to Cebu (Philippines) and Ho Chi Minh City (Vietnam), and slightly better than Ulaanbaatar (Mongolia). From several indicators the achievement of clean water supply in Jakarta is far lagged behind from Shanghai and Delhi, and even also still below the achievement in Dhaka (Bangladesh) and Kathmandu (Nepal).

These facts are truly disappointing, but what ever it may be, it must be viewed positively. This is a wake up call for the government of DKI Jakarta, PAM Jaya, the JWSRB, the Parties, KPAM, and other key stakeholders to immediately take action for a comprehensive solution to undertake institutional reform to strengthening the performance and its importance a system that is more transparent and accountable. The efforts to strengthening the financial basis that is more viable and sustainable should also be clearly undertaken. Capacity of investment in infrastructure and other physical assets need to be implemented. One other things that must be put forward is the commitment on innovation and framework and outlook that is "out of the box".

Chapter 6 Concluding Remarks:

Lessons-learnt from the Implementation of the Restated Cooperation Agreement

Policy implementation regarding public interest should receive feed back and be reviewed with respect to the lessons-learnt in order that the problems faced could avoid further more acute and bigger problems from occurring that could no longer be managed, and ensure the on-going development continues.

Resources allocation process and the importance of strategic planning

Resource allocation process at the JWSRB needs to be carried in a more efficient manner and resources limitation clearly needs to be taken account. On the other hand, the JWSRB needs quality resource input in its effort to build its credibility (Lanti 2006). Public support will improve if the JWSRB and operator are able to proactively focus on problem solving which have become high concern from the public at large and consumers (Lanti 2006).

Strategic planning has an important role in this respect and must be promoted by the JWSRB, to allow its organization to develop long term plan, not only focusing on medium term plan, such as has been happening during all this time. As described in the earlier chapter, strategic planning is useful in providing logical framework and measurable indicators. The implementation of strategic planning also accommodates the need for benchmarking and strengthening the monitoring-evaluation mechanism.

Regulation that supports performance improvement

With respect the poor performance of the parties as indicated by the achievement of the technical target and service standard which are relatively still below the target, and the approach taken by the parties, which tend to transfer the burden of shortfall and financial deficit to the consumer have caused the emergence of opinion that the implementation of the RCA in Jakarta is not of the best practice, as expressed by the former JWSRB Chairman A. Lanti to the delegation of Semarang Municipal Legislative Assembly during the presentation of private sector participation in PAM Jaya office, Tuesday, April 2006 "The experience of Jakarta should not be duplicated in other places", he added in relation to the role of the JWSRB and automatic tariff adjustment. "Full concession should be avoided, since it places water as an economic commodity. The involvement of the private sector in the provision of drinking water should be in the form of BOT scheme."

Faced with lack of competition mechanism condition (Lanti 2006) which fails to encourage the operator to perform better, regulation then becomes important. What is important is that the regulation should be realistic to be implemented by fully accommodating the existing economic, social, and institutional development. The role of regulation is also very important to encourage a performance based atmosphere. It would be required to formulate a regulation that promote competition, so that it prevents excessive profit making by the parties. If that still happened the regulation must be able to encourage such excessive profit to be enjoyed by the consumer, for example in the form of lower tariff.

On the side, regulatory framework that is adaptive is of paramount importance. In other word it is able to accommodate the dynamic changes of the existing economic, social and institutional aspects in the community. Such that the regulation becomes realistic to be
implemented on the ground. The implementation of the regulation must proceed in parallel and support the strengthening of water service provision performance and support the creation of added value for the improvement of water service provision for the whole population. Regulatory framework above is expected to strengthening the effort to eliminate the discrimination of access to water to the low income groups and households.

Still lacking its effectiveness is the present tariff setting. A good method is strongly required to ensure to what extent the present tariff level is able to promote further investment (Lanti 2006). The level of appropriate tariff is important for the financial sustainability for the development of a better water supply provision system.

Technical Aspect and Physical Development

The development of physical and technical aspects is very important especially in addressing the leakage problems, illegal connections, water thefts. Technical capability in the day-to-day operation must be continually carried out from time to time, use of up-to-date and appropriate technology. These efforts are needed in order that the outcomes with respect to the physical aspect remain reliable for the years ahead.

Technical maintenance efforts are most important element. Significant budget allocation must be made to ensure maintenance process meet the requirements. The case of no water flow for six months in 29 kelurahan in North Jakarta in November 2007, due to the damage of electrical panel at the Buaran WTP, has caused outbreak of diarrhea. It was reported that twelve babies died and hundreds were hospitalized. There is a strong indication that this outbreak was caused by lack of maintenance. Similar case should not have happened again-this provides a valuable lesson that when maintenance is not properly conducted, high risk of loss of live will likely occur. The operator capacity building should continue to be developed and effective technical supervision must be conducted for each phase of the maintenance process, which includes provision, production, and delivery. Efforts should also be taken to prevent short cut measures in the drinking water infrastructure and facility development, because this would increase the maintenance costs. Whatever, this is related to the financial and economic aspect, where the whole existing system must able to cover operation and maintenance costs.

The importance of benchmarking in the operation activity (Lanti 2006), it is expected to promote competition among the operators. Benchmarking is also important in performance monitoring process which is more measurable. Providing clear milestones to assure consistent development taking place and improvement from time to time. Key benefit of benchmarking is identification of existing gap between baseline and the actual achievement of target.

Accurate operation information system (Lanti 2006) clearly important, that is a system that could continually and reliably supply information on how the day-to-day operational productivity, how the process of production and delivery are operated, and how the achievement of short and medium term performance are accomplished? How the input from the consumers and how is the response carried out? Physical assets in this respect need to be developed because it is important to strengthen the monitoring capacity for the JWSRB, PAM Jaya, operator, and other related stakeholders.

With respect the above mentioned, key stakeholders need to develop adequate capacity in the documentation activity. In other word, how to systematically record the existing problems, so that the existing problems could be well structured, and would provide positive benefit toward the determination of priority scale.. This would indeed support the creation of the process of a more effective and efficient resource allocation. In the case of drinking water service provision, the utilization of GIS technology (Geographical Information System) would be very useful. This software program is very effective in providing geographical solution and meeting the documentation needs, as described above.

Social Capital Development

Drinking water supply provision, however that may be, is to serve the interest of the public. As a consequence, its arrangement must be beyond physical aspects. As such, social aspects must also need to be taken account that includes social justice, social norms and other relevant social aspects (Lee 1997). Included in it is how the institution could stimulate the development of sense of solidarity among members of community, forming social network and they would be able to work together maintaining the management of water supply system in good order. This is also in line with the importance of comprehensive development intervention.

With respect the issue of NRW, for example, facts indicates that law enforcement is still weak, adding to the complication of water thefts. Hence, there is no strong effect and no clear sanction to the involved party in the water theft and illegal connection. From this perspective there is a strong indication of relationship between NRW on the one side for example and the weak social capital on the other side.

Social capital in this case refers to the capacity of the key stakeholders to develop a genuine dialogue and to build a social network. This is useful to encouraging the community to take initiative and able to work together in addressing the issue of water leakage, illegal connection and water theft and maintenance works. In the future, this would need building trust among the members and between the communities with other institutions, hence giving an impact on the improvement of the performance of all the key stakeholders.

Integration of Informal Households and Informal Economy

The condition of cities in Indonesia how ever it may be is very different if compared with cities in the developed countries. The fact is that the households in Jakarta are dominated by informal household, also similar with the landscape of micro and middle scale business in Jakarta which are dominated by informal sector. There is no accurate data regarding this, however as a comparison in Bandung, for example, more than 705 of the business units are categorized as informal, meanwhile in Yogyakarta the total proportion of informal business units reach about 75%. There is a strong indication the situation in Jakarta is not very far different. This is far different than the condition in other countries, in Singapore for example more than 90% of the business units are categorized as formal. The problems are becoming more complex because of the fact that the growth of informal settlements is twice more rapid compared ot the growth of formal city.

The economic capacity of the informal sector in Jakarta is completely cannot be ignored, because it involves huge amount of circulation of monies per day. With respect to the water service provision, this is of course will have affect on the performance of coverage ratio for example. The problem emerges when the concerned informal sector applies for water connection, without having Building Permit, Family Card or even local ID card, not to mention the nature of the complexities of the problems. The key word is the integration between regulation and formal institution on the one hand and the existing informal condition on the other side. With respect to addressing the issue of water leakage and water theft, the involvement of the informal sector and household become an important factor. In other word, the integration between the formal and informal component become important in encouraging collaboration among various components in the community in addressing the problems. Hence, in the future it is expected that the network based mutual trust could be further developed.

Water Supply Provision for the Low-Income Group

The fact that the dominance of the proportion of low income households in Jakarta proved that the water supply provision for the poor, especially those living in the slum area, must be given higher attention. Unfortunately, this is still a big issue that has not been resolved.

The involvement of the CBO (Community Based Organization) and NGO become important and in line with the need for a genuine participatory approach, marked by bottom up mechanism, open dialogue and community participation in the decision making process. These CBOs and NGOs are expected able to contribute significantly in providing technical assistance and technical skill to the community on the management and maintenance of water supply infrastructure. In addition, they also could play bigger role in the giving feed back to the community, making the community more aware on how the water supply provision is managed. What have been achieved and what have not been done. How is the performance of the parties, the local government (LG) as well as NGO and CBO themselves. CBO with the support of the local community is expected able to prevent the emergence of "water mafia", which is strongly related to water theft, which certainly will inflict losses to many parties.

CBO and NGO capacity building described must also receive higher attention. Sound managerial capacity, knowledge on financial management and participatory approach certainly will have an impact on the improvement of water service provision and the environment of the low income households as a whole.

By implementing these schemes, it is expected that water supply management for the low income households living in the slum areas will become effective and efficient.

Coordination and Integration among the Parties in the RCA and related Stakeholder

The challenge in the future for the JWSRB is how to enhance its role in building a good cooperation with a solid foundation. This underlines the need of management of the implementation of cooperation based on principle of collaborative arrangement with clear functions and responsibilities for each respective party/component. This is strongly related to information asymmetry implementation, because it is important for the stakeholder to collaborate by sharing vital information.

In addition, monitoring and evaluation mechanism need to implemented in order to know to what extent each party work in accordance with this role and function corridor. The monitoring and evaluation mechanism need to be carried out consistently and periodically to ensure that each party will move forward in the same direction to reaching the specific and measurable objectives in the provision of water supply for the Jakarta residents. This is related to the importance of benchmarking. If necessary, baseline and shortmedium-long term target need to be determined, in order to able identify the extent of the gap (planned and actual). Positive impact of good collaborative arrangement is among various stakeholders able to mutually utilize their own resources. As an example, the JWSRB could utilize information sources (for example: digital maps) prepared by the operator, whereas the operator could make use input from the CBOs (KPAM, NGO), which for long time have been cooperating with the JWSRB.

In line with the need to carry out the effort to strengthening the CBO, the development of voluntary community consultative groups or nonprofit organizations (such as YLKI, for example) on the one hand bring about a consequence of the need of institutional dialogue among the various CBOs and NGOs (Lanti 2006). This will develop horizontal integration and synergy, also in order that their voices could be heard and able to play bigger role in determining the policy direction of the public services that serve the interest of the public at large.

The regulator should maintain its independency. The perception that the JWSRB is the extension arm of the executive body (Governor) and Legislative Body (Local Parliament) must be avoided, also the perception that the JWSRB is not more than representing the "master voice" that tends only to voice the interest of the private operator (Lanti 2006).

The fact that when dispute happened for example between operator and customers, or between operator and PAM Jaya, it need considerable energy and resources to addressing it. It is pressing to proactively build a conflict resolution mechanism with a comprehensive approach. Hence, when the roots (causes) of the disputes could be detected, mitigation of risk could be then be carried out so that the effect from the long dispute could be prevented.

Relation with the Participatory Approach and Bottom Up

Realizing that the community is the key stakeholder and the JWSRB and operator work to serve the people, then it is imperative for the JWSRB to involve since the early phase the community in the planning process of water supply system development and policy formulation. The general public must be involved and the involvement of the public must fuse (merge) inside beyond formal structure. It is not sufficient only have contact with lurah and other formal structure, however interaction and dialogue are needed in order to work together with the general public. This would requires participatory approach that is meaningful in line with the importance of bottom up planning process. This is important so that key stakeholders could understand the actual situation on the ground. Participatory mechanism will also promote the capability of the private operator, PAM Jaya and the JWSRB to work together with the government so that the whole performance could improve.

The Importance of Transparency

The most important factor is the JWSRB and other stakeholders must function in effective and efficient ways, and as such, in this respect genuine transparency is a key element. It is also necessary to ensure that operational audit be carried out in periodical manner and this should be conducted by an independent external party, so that performance accountability of the cooperation project could be accounted to the public.

In promoting the implementation of the transparency and accountability principles, the development of an interactive information and on line technology infrastructure are already the time to be implemented with clear target for the short, medium and long term need, particularly by the private operator in view to support the operation as well as transparency of service and financial. Parallel

with the increase of literacy and freedom of media, media become an important instrument in raising the awareness of the public and increasing pressure on the importance of institutional reform (Davis 2004).

This book has described a number of aspects regarding the 10th year of RCA on the Drinking Water in the DKI Jakarta including challenges faced by an Independent Regulatory Body, which is currently striving to show its credibility. This topic comprises a wide range of subjects and is a subject that still continue to grow at national level as well as international level. It is highly expected that the lessons-learnt from the Jakarta case could represent input for the other PDAMs in Indonesia in the coming future.