

Public Private Partnerships
and the Poor

Series Editor: M. Sohail

Public Private Partnerships *and the Poor*

Drinking water concessions

**A study for better understanding
public-private partnerships and water provision
in low-income settlements**

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Public Private Partnerships and the Poor
Drinking water concessions:
A study for better understanding public-private partnerships and
water provision in low-income settlements
WEDC, Loughborough University, UK
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About this series

The purpose of the project *Public Private Partnerships and the Poor in Water and Sanitation* is to determine workable processes whereby the needs of the poor are promoted in strategies, which encourage public-private partnerships (PPP) in the provision of water supply and sanitation services. One of the key objectives is to fill some of the gaps, which exist in evidence-based reporting of the facts, and issues around the impacts of PPP on poor consumers. This series of reports present the interim findings and case studies of an analysis of both the pre-contract and operational phases of a number of PPP contracts. A broad view of PPPs has been taken and situations where the public sector is in partnership either with formal private sector companies, or with small-scale local entrepreneurs, or with NGOs employed in a private sector capacity have been included.

M. Sohail
Series Editor

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Summary

The study examines the partnership between government and private sector in providing drinking water in Jakarta, Indonesia. It describes the perceptions and expectations of different stakeholders involved. It presented measures to improve accessibility of drinking water for the urban poor in the current Public Private Partnership (PPP) and its effect as understood by the consumers, CBOs and NGOs. It has also sought to examine the perceptions of consumers on the quality of service they receive and the marketing procedures employed by the PPP to motivate people who use ground water to subscribe to the piped water in the slums of Jakarta. Finally, it has explored and discussed ways of developing partnerships with community-based organisations to improve service delivery to low-income neighbourhoods. Several options have already been implemented to meet the special needs of low-income households.

To achieve these objectives this case study has relied on analysis of policy documents and agreements between public and private actors and in-depth consultations /interviews with different groups of stakeholders with a view towards ascertaining and comparing both their overall opinions on private sector involvement and their opinions on issues raised in the course of the analysis with regard to the PPP in Jakarta.

In order to ascertain the views of households, water vendors, and those persons, who sell drinking water through hydrants, we selected four kelurahan (areas) for study. Two kelurahan are in the area where Thames Water Company) are responsible for distributing drinking water (Bidara Cina and Marunda) while the other two kelurahan are under the responsibility of Lyonnaise (Kalianyar and Muara Angke).

We interviewed 51 respondents, who were classified into 9 groups. Out of these respondents 31 were consumers of the water company (8 HHs are directly served by the Water Company, 10 HHs are served through water vendors, 6 respondents are hydrant managers and 7 respondents are water vendors. The respondents were selected, at the neighbourhood level with the assistance of the CBO as well as heads of neighbourhoods.

The study indicated that there is concern regarding the fairness of the agreement in representing the interests of the government and people. In relation to the urban poor, we found no specific statement in the PPP agreements with regard to their welfare. Our review indicate that the water company has performed well in terms of the amount of water sold but more is need with regard to consumer services and increasing the numbers of new customers especially the poor. This indicates that there should be improvements in control and regulatory mechanisms and in collaboration among stakeholders

1.

Objectives of the study: methods, materials, theoretical framework and issues related to private sector participants specifically on social concerns

1.1 Introduction

Despite decades of rapid economic growth, Jakarta's water provision remains underdeveloped (for example, only 42.6% of households have water piped into their homes). A large share of the population (53%) is dependent on ground water for drinking, despite high population densities and high faecal and chemical contamination. An even greater proportion (70%) relies on groundwater for washing, a practice that extends to the northern parts of the city where the groundwater is brackish. In areas where the groundwater is brackish, many households (especially low-income households) rely on drinking water from vendors reselling piped water from public hydrants, often at prices 10-15 times the normal residential water tariff (Surjadi et al 1994).

The piped water system itself is in poor condition, with losses of up to 57%, high levels of faecal contamination, and frequent interruptions and pressure losses. All households, whether using piped or ground water, must have a container to store water due to the interrupted flow of water and the water is only available at certain hours, usually at night. Households have to boil their water before drinking it (or purchase bottled water).

In order to examine several critical issues involving the recent water concession (public-private collaboration) and the provision of water in low-income communities in Jakarta, this study was implemented. Central to this study will be a comparison of the experiences, perceptions and priorities of different stakeholders. By comparing and contrasting these different experiences, the study is expected to gain a better understanding of how private-public partnerships can better serve the poor.

1.2 Study objectives and method

1.2.1 General objective

To examine the current impacts and potential future implications of increasing private sector involvement in water provision in Jakarta, with particular emphasis on low-income households.

1.2.2 Specific objectives

1. To examine the agreements constituting and regulating the outcomes of the private-public companies (in terms of investments, distribution of revenues/profits, costs to consumers and incentives to improve efficiency and service delivery)
2. To describe the perceptions and expectations of different stakeholders about public-private partnership in relation to drinking water in Jakarta
3. To describe measures to improve the accessibility of drinking water for the urban poor in the current private-public partnership and its effects as perceived by consumers, CBO and NGOs
4. To examine the perceptions of consumers on water service quality, measures to motivate people who use ground water to subscribe to pipe water, and the marketing procedures employed and their effects on the use of piped water by people living in the slums of Jakarta
5. To explore and to discuss alternatives in developing partnerships with community based organizations for improving service and delivery to low-income neighbourhoods; several options have already been implemented and some improvements may be made to meet the special needs of low-income households

1.2.3 Methods and materials

In order to achieve the objectives this case study relied on a combination of analyses and consultations/interviews, as well as a final workshop. The implemented activities are as follows:

1. Collect policy documents and agreements between public and private actors, and review public-private partnerships and their operation in Jakarta.
2. In-depth interviews of different groups of stakeholders, with a view towards ascertaining and comparing both their overall opinions on private sector involvement and their specific opinions on issues raised during the course of the analysis. Respondents are interviewed for the purpose of ascertaining the perceptions of users/inhabitants/householders, water vendors and persons who sell drinking water from hydrants. We selected four kelurahan consisting of two kelurahan (Bidara Cina and Marunda) in the area where the Thames Water Company is responsible for drinking water distribution, while the other two kelurahan (Kalianyar and Muara Angke) are the responsibilities of Lyonnaise.

Kelurahan Kalianyar has been selected to represent an area where the majority of the households could not use well water for drinking because the water is high in salinity (due to the infiltration of seawater). Kelurahan Bidara Cina, in East Jakarta, represents

an area where people can use well water for drinking since there is still no salinity, it looks clean and does not smell. Previously, Atma Jaya facilitated community-based health activities in those two kelurahan so there is a good relationship between researchers and the community, including CBOs, government officials, and inhabitants/householders in both kelurahan.

Kelurahan Muara Angke has been selected because in that area there are activities organized by Lyonnaise PAM (Palyja) to improve drinking water quality and the access to drinking water. Likewise in Marunda, Thames PAM Jaya organized similar activities

Table 1 shows the total number of respondents and their categories. We interviewed 51 respondents who are classified into nine groups. Out of these respondents, thirty-one are consumers of the Water Company through different modes; They consist of a) eight households are directly served by the Water Company, b) ten households are customers of water vendors, c) six hydrant managers who buy water from water companies and sell to water vendors and d) seven water vendors *who* sell drinking water to the inhabitants (this needs clarification). The respondents are selected purposively. At the neighbourhood level the respondents have been selected with the assistance of the CBOs as well as the heads of neighbourhoods.

Respondents	Number of respondents	Description
1. International agencies	5	World Bank, UNDP, Unicef, British Council
2. Water companies	2	Thames Water, Lyonnaise
3. City government	4	Bappeda, Bappedal., Housing agency, Government Water company/PAM
4. Legislative council	1	Chief of commission
5. NGOs	2	Consumer organization/YLKI and Care International
6. CBOs	3	Marunda, Bidara Cina, Kalianyar
7.1. Household (HH) users of PAM	8	Marunda (1 HH), Kalianyar (3HH), Muara Angke(2HHs), Bidara Cina (2HHs)
7.2 HH users of Water vendors	10	Marunda (5 HHs), Kalianyar (1 HH), Muara Angke (4 HHs)
7.3. HH user Well Water	3	Bidara Cina (3 HHs)
8. Hydrant managers	6	Marunda (2), Kalianyar (2), Muara Angke (2)
9. Water Vendors	7	Marunda (2), Kalianyar (3), Muarangke (2)
Total	51	

* Pam is the Government Water Company. Bappeda is the city-planning institute. Bappedal is the institute for environment and living conditions.

1.2.4 Theoretical framework and issues related to private sector participants, specifically on social concerns

Governments around the world are facing a great challenge in improving access to good quality, reasonably priced water for their citizens. The challenge is how to mobilize resources and invest them cost-effectively. One alternative is to involve the private sector. Recent case studies indicated (Johnstone and Wood, 1999) that there is a trend towards increased PSP (Private Sector Participation), more decentralized management, emphasis on demand-based provision, differentiated levels of service

and a greater degree of cost recovery. However, it should be noted that there are also numerous examples of efficiently managed public water and sanitation utilities in developing countries. Moreover, according to Johnstone and Wood, in most developing countries it is not necessarily the public sector per se, but factors such as faulty incentive structure, the politicization of personal appointments and management, and other bureaucratic weaknesses that contribute to poor performance.

Social concern related to drinking water is needed to ensure that poorer households gain access to an affordable water system. Several studies have pointed this out (see Surjadi et al, 1994, Satterthwaite 1995, McGranahan et al 1996). It is almost always the poorer households that do not have access to adequate water reserves; therefore, those conditions combined with inadequate sanitation have numerous interdependent consequences for poorer households: (Johnstone and Wood, 1999) such as:

1. Increased monetary costs for those who lack access. When households lack access to the system, they adopt a variety of alternative strategies which are quite often more expensive than the formal systems. For example, in Jakarta in 1994, poorer households bought drinking water at a price several times higher than the rich who get drinking water from the Water Company (Surjadi et al 1994).
2. Increased time and physical effort needed in collecting water. Collecting and carrying sufficient water for households' domestic needs is a time consuming and arduous task, especially for poorer households who usually have many children. The mothers and fathers have to do numerous tasks early in the morning, besides having to queue for drinking water.
3. Reduced water consumption levels. The greater the cost in money, time and the effort of obtaining water, the less likely households are to use the water adequately.
4. Increased health burdens. Many poor households suffer from one of the main diseases associated with inadequate water supplies; such as water borne diseases (*diarrhoea* and intestinal worms), diseases caused by bathing in dirty water (various skin and eye infections, such as scabies and trachoma) and water-related insect vector diseases, such as malaria and dengue.
5. Economic costs in terms of lost productivity. Health effects due to inadequate drinking water provision result in household members taking time off from work due to illness or nursing sick family members, along with extra expenses for treating sick family members.

Stottmann (2000) pointed out that the challenges to improve access to drinking water in the city through the involvement of Private Sector Participation are to ensure that:

1. Customers receive efficient services of appropriate quality at a fair price, and
2. The private sector obtains a fair rate of return for providing the services.

To achieve these goals, the private and public sector must work together within a framework of checks and balances. Private managers are free to manage their affairs as efficiently as possible and provide for sufficient control by the public sector to

ensure that the private partners fulfill their obligations. PSP has several implications for all those involved: 1) For government, 2) For private service providers, and 3) For NGOs/CBOs.

Implications for government

The government has to effectively regulate to ensure that services are not over-priced or under provided and to ensure that social concerns, such as increasing access for the poor, are not neglected. This may be done through a variety of mechanisms, such as the regulation of prices, services, quality standards, and coverage targets, etc.

Implications for private service providers

The private service providers have to ensure that social concerns are addressed. They have to prove themselves not only commercially, but also as socially and environmentally concerned.

Implications for NGOs and CBOs.

NGOs and CBOs have to change their message and their target audience from the government to include private sectors. They have to ensure that investments undertaken by private service providers reflect the preferences of users. NGOs may facilitate several alternatives to create different levels of services for different households or neighbourhoods. They may be active in the provision of certain aspects of water services.

There are several stakeholders related to drinking water: employees, consumers, environmental interests, existing government agencies and other citizens. These stakeholders must take an active interest in the privatization process (Table 2). From this table, it is clear that consultation is the main method of obtaining stakeholder inputs.

Table2: Potential stakeholders' issues and policy responses (Stootmann 2000)			
Stake holder groups	Possible issues	Policy decision required	Ways to get inputs
Employees	Staff redundancies Change in employment conditions	Redundancy packages and other arrangements encouraging staff to leave	Open and continuous consultation and negotiation with staff
Consumers	Consumers' preferences Willingness to pay	System for planning extension Tariff methodology Design subsidy scheme	Social assessment, Participation, Public relations/consultation campaigns
Environmental interests	Major environmental consequences	Environmental standards to be applied Liability for past pollution	Consultation with environmental groups
Existing government agencies	Major shifts in the allocation of responsibilities	Implementation of a new regulatory system Redefinition of responsibilities among government agencies	Intensive consultation
Other citizens	Resettlements	Resettlement policy	Direct consultation with affected groups

Source: Stootmann, 2000

On the basis of the above, it is clear that the primary social concern of private participation in drinking water supplies is the increased access to people, including the urban poor, with reasonable prices and standard quality.

According to Stootman 2000, the critical issues in private participation are related to financial concerns, including water tariffs; some questions have to be answered as follows:

- If the private sector partner is expected to invest in rehabilitating the system or expanding coverage, how will that affect the tariff?
- Will the current tariff cover cost after allowing for expected improved efficiency?
- If the projected tariff exceeds what some households are willing to pay, will the government provide subsidies; if not could investment programs be reduced to match financial capacity of the consumers?

In relation to water tariff, one of the keys to realizing social objectives of drinking water supply is the application of a tariff schedule with positive consequences on distribution, and through the use of rising block tariffs in which low levels of water consumption are charged at lower rates (Johnstone and Wood 1999). In other cases, a lifeline tariff is used, where consumption up to a certain level is free and a monthly charge is applied in addition to the user tariff.

Service quality can be assessed over three dimensions (Baker and Tremolet, 2000): 1) production phase, 2) product/service delivery, 3) customer relations.

Production phase

Health and safety impact on employees and environmental impact.

Product and service delivery

Product/service characteristics including physical, continuity, reliability, flexibility, aesthetics, and frequency

Customer relations

Responsiveness such as speed in making connection, speed in solving service problems, speed and quality of handling components; billing, such as accuracy, timeliness and flexibility in payment methods.

Indonesia pays attention to private sector participation in order to clarify activities on infrastructure development. There is a book which has a preface written by the Ministry of Labor Works in December 1997. The authors, who also are high ranking officials at the National Planning Bureau, explained that there is a draft of a Government regulation which describes the partnership of private companies and government covering five sectors: 1) energy (electricity and natural gas), 2) transportation and communication, 3) telecommunication, 4) reclamation and irrigation, 5) human settlement, including drinking water, sewage treatment and solid waste management.

In implementing PSP, which they perceived as a breakthrough in the infrastructure of Indonesia, they pointed out that the dubious perception of PPPs in Indonesia is due to a misconception in which the public understand partnership to mean a) government ownership shifts to private ownership, b) tariff is based on profit making and without room for consideration of the poor and without control from the government. These issues may be solved if the community and all stakeholders are involved in the partnership, and the adjustment of the tariff is accompanied with an explanation about the purposes and the benefits that will be gained (Ramelan, 1997). In Indonesia, several constraints on the implementation of PSP may have to be overcome:

1. Limited experience of private companies and government implemented approach
2. In many cities the water price is set up with the subsidy price; it is not calculated based on cost recovery; therefore, when PSP is implemented the water price has to be increased.
3. In many areas PAM/Water Company has contributed a significant income to the local government so it is doubtful that privatization will mean any loss for local government.

In those documents, there is no information on how to secure services delivery to the poor.

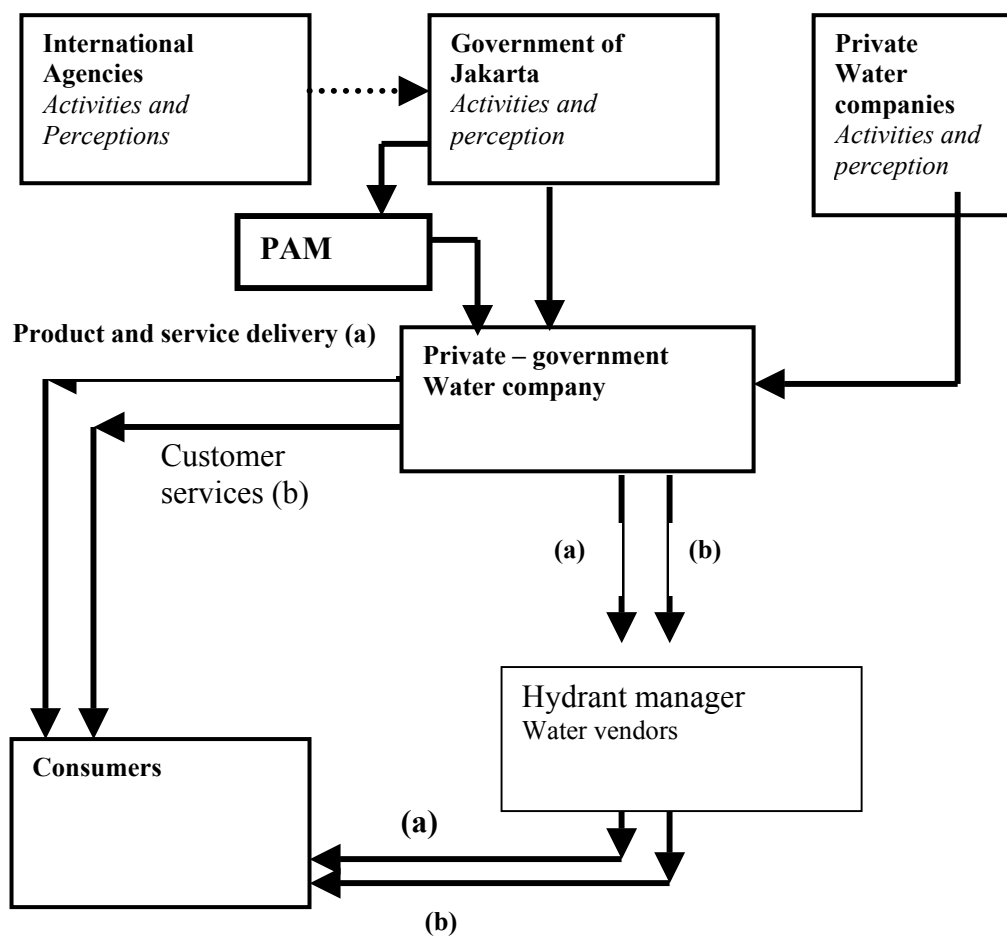
For the purpose of our study, we constructed a theoretical framework as shown in figure 1. We assumed that the joint private–Government Company is formed under

the direction of a private water company and the government of Jakarta, while the government of Jakarta receives some input from International Agencies. The joint government and private water company, under the supervision of the private company, the government and PAM (government water company), manages the potable water supply in terms of product and service delivery, and provides consumer services to households in Jakarta, as well as to hydrant managers.

In our study we will focus on: a) the regulation and the agreement between the private company and the government of Jakarta, b) the perception of consumers and the available benefits received by consumers, hydrant managers, and water vendors on product, service delivery and consumer services.

We have mainly concentrated on consumers, Private Government Companies, hydrant managers, and water vendors. We did this in order to understand their perception of private sector participation activities conducted by Private Companies, and to discern what has been achieved with regard to the production and services of potable water in Jakarta.

Fig. 1.: Theoretical research framework of private sector participation in drinking water in Jakarta



2.

Public-private partnerships in drinking water and their operation in Jakarta

In this study, we collected information and publications related to public-private partnerships in drinking water supply. This section describes the agreement and implementation of the partnerships in the last two years, condition of potable water sources in Jakarta, barriers to connections for low-income households, and the proposed means of reducing barriers. The main reference sources for this section are: “Regulation and monitoring of private sector participation in Jakarta water supply”: a final report for The World Bank and DKI Jakarta; interviews with the private company; published documents of the private company; newsletters; investigative reports, especially from Tempo magazine and Kompas on-line newsletter; and the report of ICW on privatization of drinking water in Jakarta, 1999.

2.1 The purpose of the agreement and attention to drinking water for the urban poor

In 1997, the establishment of co-operation agreements concerning ‘Clean Water Supply and Service Improvement’ was pursued for East and West Jakarta. The agreements were signed in June 1997, with PAM Jaya as first party to the agreement. The partner or second party selected for East Jakarta was PT Kekar Thames Airindo, and for West Jakarta, PT Garuda Dipta Semesta, each a consortium of international and domestic investors. The agreements became effective on 1 February 1998.

Section 2.2 of the co-operation agreement states that the objectives of the agreements are:

- to support economic and social development in the DKI Jakarta area through the development of water infrastructure;
- to improve the quality of distributed drinking water;
- to achieve comprehensive coverage of distributed drinking water;
- to engage private sector participation in the production and distribution of clean water;
- to improve management and efficiency of the water supply system; and

- to provide a system for requiring customers to change from ground water supplies to piped water supplies where available.

Three main issues are the focus of the agreements as described in the NERA report (NERA, 1999): 1) water charges, 2) investment programme, and 3) service standards.

2.2 Water tariff and improvement of access

In Indonesia general guidelines for the determination of drinking water tariffs are set out in the Regulation of the MoHA No.2 of 1998 ("MoHA 2/98"). This is implemented by the Instruction of the MoHA No. 8 of 1998 ("Instruction 8/98"). While the ultimate supervision of the determination of tariffs is to be carried out by the MoHA, MoHa 2/98 requires the Governor to supervise and control the implementation of such guidelines.

Pursuant to MoHA 2/98, the determination of PDAM water tariffs was based on the following considerations: cost recovery, affordability, efficiency, simplicity and transparency. Instruction 8/98 provides further guidance in relation to these, for example in setting up standards for assessing 'affordability'. A PDAM is required to take into account the basic needs of household customers and their ability to pay, and is explicitly permitted to carry out a cross subsidy of customer groups in order to meet the requirements of cost recovery and affordability.

Customers are classified into five groups according to their socio-economic status and PDAM has the authority to amend the criteria for particular customers. PDAM is also entitled to enjoin a fixed monthly charge to customers for connection to the system, which will include the cost of administration of customer accounts and meter maintenance. Every new customer will be charged the cost of connection, which will include the cost of the necessary meters.

With respect to tariffs in DKI Jakarta, RR11/93 states that the Governor shall determine the drinking water tariffs, taking into account the financial ability of small-scale consumers and the suggestions of the DPRD. In relation to DKI Jakarta, MoHA 2/98 is implemented by the Decree of the Governor of DKI Jakarta No. 2969/1998 dated 9 April 1998 (Decree 2969/98).

This decree sets out the agreed adjustments to the tariffs and the classifications of drinking water customers for DKI Jakarta. It confirms that the existing tariffs will be automatically evaluated every six months, commencing on 1 January 1999, by using the following formula:

$$T_n = R_n / (V_{wn} + V_{en}):$$

Where:

- T_n = the average tariff to consumers for six months (Rp/m³)
- R_n = the total of all costs during the 6 months, consisting of:
 - (1) the recompense to the private parties in the East and West areas;
 - (2) the debts to the Ministry of Finance;

- (3) the costs of PAM Jaya;
- (4) the original regional revenue of DKI Jakarta:
- (5) the reserve of raw and processed bulk water;
- For the year n-1 times the index that is calculated by using statistics issued by the Badan Pusat Statistik, except the payment of debts to the Ministry of Finance shall be in accordance with the payment schedule.
- V_{wn} = Projected/ target water volume as recorded to customers in the West area during a 6 month duration.
- V_{en} = Projected/target water volume as recorded to customers in the East area during a 6 month duration.

Decree 2969/98 also requires PAM Jaya to formulate a programme to improve services provided to people who do not yet have access to PAM Jaya's pipe distribution network, to overcome leakage and generally improve the performance of PAM Jaya.

In order to subscribe for potable water, a customer has to fill in a form, provide a copy of Jakarta residency and a copy of land and building tax or a field certification signed by the private company and the customer stating the width of their house.

The fee the consumer candidate has to pay is a) fee for connection, b) maintenance fee, c) prepaid fee/advance, d) and consumer fee (according to the total cubic metres of water used).

The customers are differentiated into five groups according to socio-economic status and the type of facility (religious, hospital, middle business, etc.) and the total volume of water used per month, which is differentiated by monthly use above 20 m³ and from 0 to 20 m³.

The grouping of households is based on the floor area of their house. A household group is very poor if they stay in a house less than 36 m² in public settlement areas. A household group is poor if they live in a house from 36 m² to less than 70 m² in public settlement areas. A middle household is a household with more than 70 m² and less than 120 m² in public settlement areas or neighbourhoods, or the household with less than 70 m² is in a real estate area. In 2000, poor households that consumed less than 20 m³ a month were supposed to pay Rp. 995 per m³ whereas if they consumed more than that they had to pay Rp. 1.275 per m³.

2.3 Drinking Water Quality

Pursuant to Law No 23 of 1992 on Health (Law23/92) the Government is responsible for improving public health. It has the duty to regulate, develop and supervise the implementation of health efforts in Indonesia. The Government must supervise all activities related to the implementation of health efforts, including the regulation of standards, accreditation and tariff models. Law 23/92 recognizes that improving

environmental health, which includes determining and maintaining the quality of water can achieve the optimum degree of public health.

Pursuant to Government Regulation No 20 of 1990 on Control of Water Pollution (GR20/90), the Governor is responsible for supervising water quality at both Level I and II Regions, and accordingly, will determine the standard of water quality. The regulation of MoPW No. 45/PRT/1990 deals specifically with control of water quality. The scope of supervision covers the following activities: (I) examination of the quality of water resources, and (II) evaluating and providing recommendations to the Governor.

With regard to water sources in DKI Jakarta, the implementation of the authority and responsibility of the MoPW for control of the quality of water sources and the establishment of water standards is carried out by the Director General of Water Affairs, assisted by certain statutory bodies or working units. The quality control of raw water to be used for clean water and the supervision of the water quality of rivers in residential areas is to be carried out in cooperation with the Director General of Cipta Karya.

The regulation from the Minister of Health, No. 416/MENKES/PER/IX/1990 (MoH 416/90) sets out the standards for the quality of drinking water, as well as clean water, water for swimming pools and water for public bathing places. MoH 416/90 defines “drinking water” as water used for daily needs, the quality of which fulfills certain health requirements and can be drunk. “Clean water” is water used for daily needs, the quality of which fulfills certain health requirements but cannot be drunk without first being boiled. It should be noted that the term “drinking water” under RR 11/93 means water that fulfills the quality of clean water in accordance with MoH 416/90.

2.4 Activities by the private company and its achievements

According to members of the private company there are four main reasons why they are involved in the provision of drinking water:

1. To improve the availability of and access to drinking water by the people
2. To support the local government to overcome the limitation of resources, mainly financial resources
3. To improve the knowledge and experience of local workers on how to manage and offer services to consumers
4. To provide reasonable benefits to stakeholders

Before the implementation of a partnership with the private company, the total number of connected households with piped water was 428,764, households with non-revenue water 57% and sale volume 191 million cubic metres, with low water pressure in many places. The low coverage of the piped water was related to two reasons: the perception of the households and infrastructure conditions.

Many households perceived the quality of PAM Water as dirty and smelly. PAM Water was expensive compared to well water which was perceived to be better and

inexpensive/no need to pay. However, there was low awareness of the environmental and health impacts of the use of well water. Lack of funds for investment, limited infrastructure and lack of funds to maintain and expand the piped network resulted in poor piped water infrastructure conditions. In relation to this, some activities have to be carried out by the private company: 1) Set up a new piped water network, 2) Rehabilitate the old pipe network, 3) Optimally use the current network for pipe connections. Technical targets have been set up as shown in table 3.

	1998	1999	2000	2001	2002
Total number of households connected	470674	571776	653885	711003	757129
Coverage of services	49%	57%	63%	67%	70%
Non Revenue Water	50%	47%	42%	38%	35%
Sales volume (m3)	210	244	281	317	342
Pressure at customers*			50%(7.5m)	75%(7.5m)	100%(7.5m)

*Pressure is same - the only change is the coverage of the pressure

The plan for implementing this in terms of money is shown in table 4

Type of investigation	West area (Lyonnaise/Palyja)	East Area (Thames/TPJ)	Total
Production facilities	146	30	176
Transmission system	138	-	138
Network development	390	361	751
Decreasing NRW	165	96	261
Others	85	109	194
Total	924	596	1520

* This plan was calculated in January 1997 where 1US\$ = rp 2.400, in May 2001, 1US\$= Rp 11.450

Until 2000 the investment and technical achievements of both private companies are shown in table 5.

	PT Palyja	PT TPJ	Total
Capital given	Rp 201 billion	Rp 116 billion	Rp 317 billion
Investment	Rp 463 billion	Rp 300 billion	Rp 763 billion
Substitute/rehabilitation pipes	537 km	125 km	652 km
New pipes	179 km	416 km	595 km
Coverage of services	45%	58%	49%
NRW	54%	45%	49%

In 2000, the two private companies announced that their problems could be differentiated into: 1) increasing cost of operations due to the monetary crisis,

specifically the increasing exchange rate of dollar to rupiah, 2) the high inflation rate (more than 100% compared to 1998), and 3) the salary increase of the employees. However, these problems should be questioned due to the fact that the private company partners include foreign partners who benefited due to the monetary crisis (which mainly originated from the high depreciation of the rupiah), on the assumption that their investment was paid in foreign currency.

A detailed report of PT Palyja/Lyonnase Thames PAM Jaya stated that their achievements until July 2000 are as follows:

1. Production

The TPJ company produces 9,050 liters of clean water per second, produced by water treatment plants: Buaran 1 and 2, Pulogadung water treatment plant, and Condet mini plant. Pt Palyja renewed their installation in Pejompongan 1 & II, Cilandak and Muara Karang and improved capacity in Cilandak. They are able to produce 6,300 litres per second and cover 1.95 million people.

2. Operational

Detect leaks, increase new connections, replace small meters and large meters, install new pipe network in the eastern and northern parts, monitor water quality by analyzing water samples per month, discover illegal connections.

Provide 24-hour customer contact care service centre and provide prompt response to customer complaints.

In addition, they introduced a new billing system, improved staff performance by organizing customer service training courses, establishing a customer code of practice, and increasing payment points in coordination with the state post office.

3. Customer services

Provide 24-hour customer service contacts, care service centres and training for their staff.

4. Social responsibilities

Among others they are committed to distributing potable water to all customers within 10 years, and have granted 1 billion rupiah to develop a 5.17 km pipe network for Marunda areas and some activities for refugees in East Timor, such as scholarships for employees' children in other areas of Indonesia. Besides this, they also supported some activities related to environmental awareness, such as the clean river campaign in North Jakarta in 1998.

2.5 Customers served by the water company and means to serve poor areas

Customers of the Water Company are differentiated into seven types that are charged differently from low tariff (social tariff) to high tariff (commercial tariff), these are

1. Group K1 social institutions, orphanages and religious facilities
2. Group K2 very poor/simple households /poor, government hospitals
3. Group K 3A simple flats and poor households
4. Group K3B middle-income households, middle income flats

5. Group K4A upper middle-income households, private doctors offices, small hotels, etc.
6. Group K4B Star hotels, factories, nightclubs, and condominiums
7. Specific Tanjung Priok Harbour

Based on this classification the percentage of customers from poor households in groups K2 and K3A who are served by the two companies in January 2001, is as shown in table 6

Type of Groups	PT Palyja	PT Thames PJ
K1	0.9%	1,1%
K2	9.5%	7,5%
K3A	56.8%(K3A and K3B)	60.9%
K3B		19,48%
K4A	24.2%	8.29%
K4B	8.6%	2,65%
Total	100%	100%

Other activities that have been provided by the two companies for slum areas and poor people are sending water tank trucks and setting up hydrants for different purposes, such as public hydrants for water vendors, tank hydrants (water is supplied by truck regularly sent by the water company) and MCK hydrants (hydrants for public wash rooms, provided next to public facilities for defecation, bathing and washing clothes). In addition, there are other hydrants for ships and for the fire department (managed by the fire department). Besides providing hydrants to improve access to drinking water, the water company has also given credit to poor people to pay the new installment fee in monthly amounts over a period of one year.

2.6 Controversy related to the involvement of a private company

In line with the fall of Suharto and the spirit of reformation, one of the NGOs in Jakarta, called Indonesian Corruption Watch, provided an analysis on private sector participation in Jakarta drinking water (ICW, 1999). This report explains the history of the government Water Company (PAM Jaya). In 1987 according to them, PAM Jaya received loans from several international agencies. PAM Jaya is one of the Government water companies that have the status of self-reliance. The other four water companies are Bandung, Semarang, Surabaya and Medan. In this condition, the Jakarta Water Company (PAM Jaya) has not received support from the central government.

The Government of Jakarta has not set up any definite contribution to local government revenue/ income (PAD/ *Pendapatan Asli Daerah, local government income/revenue*) but PAM Jaya regularly donated between 3 billion to 10 billion rupiah to Jakarta PAD. So before privatization, according to the report, there were always benefits from PAM Jaya; there was no deficit.

Before privatization (1997), according to the report, the non-revenue water/leakage of water was 56%, which is calculated by subtracting the amount of water sold/paid by

the consumers from the amount of water sent from the water-processing centre to the consumers.

The privatization started in February 1998, and since that time the administration and management of drinking water has been transferred to a private company (including all assets for production and distribution) but depreciation and taxes were registered in the name of PAM Jaya. In the report, it seems that the water company has performed well on water sold but inadequately on consumer services and attracting new customers (see table 7).

Table 7.: Achievement of the private companies from February-December 1998		
	Palyja	Thames PJ
New customers	23,4% target	70.1% target
Water sold	92,4% target	95,7% target
Consumer services	71,4% target	50 % target

According to this report, the agreement created some problems:

1. The agreement is contradictory to some laws.

The agreement was set up in consideration of Law no. 11 1974 on water, and Government regulation /PP no. 20 1974 but ignored other laws against the privatization of drinking water. According to the Ministry of Internal Affairs the agreement should become BOT (Build, Operate and Transfer) within a period of 25 years; however, in reality the agreement is a concession which should be expanded, with the private companies managing operations and obtaining the rights to all assets related to the cooperation.

2. Financial consequences, which cause losses for the Government:

Central government

The government has to subsidize the gap between water tariffs for consumers and sales results set up by the private companies in 1998 equaling 234 billion rupiah.

Losses of PAD for the government of Jakarta

Due to the cooperation, the government of Jakarta lost the income, which was regularly submitted by PAM Jaya each year (around 3 billion to 13 billion rupiah).

Position of PAM Jaya

It seems that the private companies have taken over many of the rights and assets of PAM Jaya; however, PAM Jaya has to guarantee the continuity of raw water for potable water and its quality, which decreases the regular income of PAM Jaya. After signing the agreement there is only enough money to pay salaries and fund operational activities. There are no sanctions on the private companies if they do not achieve the agreed target.

3. Water tariff

The private companies have the right to set up water tariffs that have to be paid by PAM Jaya. The payment to the private companies is not based on water tariffs set up by government. If the revenue/ income set up by the private companies is not fulfilled, PAM Jaya or the government should pay this gap.

On the other hand, if the tariffs do not fit the revenue/ income projection, the Water Company may adjust the standard of services to the customers.

On 8 April 2001, there was a movement facilitated by the PAM water company workers to demand the cancellation of the cooperation between the government and private water companies. In the beginning the workers demanded salary improvements, but further they demanded the cancellation of the cooperation for the following reasons:

1. There is no abiding law to support partnerships between private companies and the government in managing drinking water. Several Governmental Laws, such as Chapter 33 of the Constitution (UUD) 1945, Law (UU) No. I Year 1967 about Foreign Investment, Presidential Decree No. 16 Year 1990, Regulation of the Dept. of State No. 3 Year 1990 about Processing Regional Property, Regional Regulation No. 13 Year 1992 about Drinking Water Services in DKI, and Regional Regulation No. 11 Year 1993 about Drinking Water Services in DKI, mention that drinking water has to be managed by the government, not the private sector.
2. The cooperation facilitated by collusion during the Suharto regime, which in the beginning had aimed to improve the management of the Jakarta Water Company, resulted in a deficit for the government. The cooperation is not helping the government but bringing about bankruptcy due to the imbalance of water prices. The charges of the Water Companies to the government are higher than drinking water tariffs to customers. The companies charge the government Rp 2,716 per cubic metre, while the price of drinking water paid by consumers is Rp 2,192.1 per cubic metre. Because of this, there is a deficit of Rp. 533.9 per cubic metre. Due to this condition, in 2000 PAM Jaya had a deficit of 394 billion rupiah. One of the reasons for high water charges, according some NGOs, is the inefficiency of the water company operation and high leakage of water that is growing higher, from 57% to 63%.
3. Poor services in improving the pipeline network and late invoices
4. PAM Jaya demands more power, as not only to regulate but also that the government auditing body must audit the financial report of the company.
5. In one of the discussions, some participants complained about the difficulty of gaining access to investment and the long-term plans for managing drinking water from the government as well as the Water Company.
6. There is no clear report and evaluation of the achievement of the private companies or evidence that the penalties on the private companies will be imposed if they cannot fulfill their targets.

According to the print media (Kompas and Warta Kota), activities that need to be done by the Water Company and are demanded by NGOs are as follows:

1. Implementation of a new pipe network and a social awareness programme about the new network.
2. Make an agreement with the consumer association (Yayasan Lembaga Konsumen Indonesia) (YLKI).
3. Improve services through regional offices.
4. Move offices for customer payment to regional offices and the post office, etc.
5. Expand public information through leaflets and information at the neighbourhood level and through NGOs.
6. Training programmes for their workers.
7. In the year 2001, Palyja should develop a 70 km network, rehabilitate 200 km of pipeline, install 15,000 water meters for new customers and replace 18,000 old water meters. TPJ should develop 255 km of new pipeline, build 20,063 new connections, rehabilitate 80 km of pipes, and replace 35,250 old meters.

Table 8 shows that some targets demanded by the public were achieved and some were not.

	<i>Pt PalyJa</i>		<i>PT Thames PAM Jaya</i>	
	<i>Achievement in March 2000</i>	<i>Target 2001</i>		<i>Target 2001</i>
Developed network	179 km	70 km		255 Km
Rehabilitated pipeline	537 km	200 km	125 km	80 km
Replaced pipe	179 km	18,000 m	416 km	
Increase new connections	/			20063
Coverage services	45%		58%	

3.

Study area, its improvement and the perception of stakeholders as related to private sector involvement in drinking water

This section describes the study areas, the current drinking water sources used by local inhabitants and the activities related to private sector participation. It also describes the views of stakeholders on private sector involvement in drinking water in Jakarta. The information for this section mainly comes from in-depth interviews and publications related to the topic. The stakeholders in drinking water supply have been identified as community (households), water vendors, manager of hydrants, community based organizations, local governments (the city planning bureau), members of the legislative city council, non-government organizations, the private sector itself and international agencies.

3.1 Description of Bidara Cina, Kalianyar, Muara Angke and Marunda

Muara Angke, in north Jakarta, is a kelurahan where the majority of the citizens are low-income fishermen. There are 2,664 households, consisting of 12,418 people of which 52.2% use PAM water for drinking water while the others use well water. There are three methods whereby citizens obtain access to drinking water:

1. Hydrants. People usually buy two buckets of water (30 l buckets) for Rp.700 or 19 bucket for Rp 3500.
2. Water vendors, due to low socio-economic condition, no citizen buy drinking water from water vendors, many water vendors sell water to other areas
3. Pipe water from Water Company, in this area there is no household have piped water.

Kali anyar, in West Jakarta, is a kelurahan where the majority of the citizens work in the informal sector as food vendors, daily workers, etc. Kali anyar has 5494 households with 28753 citizens. Well water in the kelurahan is salty so the majority of people do not use it for drinking, although it is still used for washing or bathing. There are three ways in which people can obtain drinking water.

1. Hydrants. Households who buy drinking water directly from hydrant have to pay rp 300 for two bucket of 25 l water or 10 bucket water of 25 l with rp 1500

2. Water vendors, people buy water from the water vendor at a price of Rp 500 for two buckets of 25 l water, or Rp 2500 for 10 buckets of 25 l water.
3. Piped water, households get drinking water from water company directly through piped. For low-income household if they consumes more than 20 M3 per month it will be charged Rp 1275 per M3, which almost 25 times cheaper than the vendor price. Middle-income households are charged Rp 1600 per M3. Some people only use the piped water for bathing because they perceive the quality as too poor to be used for drinking, while others complain about the low pressure and interrupted flow, especially in the morning and afternoon

Marunda, in the North of Jakarta, is a kelurahan with 2852 households and 11198 people, the majority of who are fishermen or daily workers. Marunda has 7 hamlets, of which 2 (RW 07 and RW 01) have no piped water. In RW 7, where the majority of the citizens are fishermen, there is activity organised by PAM Jaya to increase access to drinking water. PAM Jaya has provided a water tank, which has a capacity of about 10,000 litres, although this does not function at present because of leaks. There is also another water tank donated a by private company. PAM sends drinking water weekly to this tank, while households have to collect water from the tank themselves at a price of Rp 300 per cart in RW01

Bidara Cina in the East of Jakarta is a kelurahan with RW; it has 13343 households with 45803 persons. The majority of residents belong to low-income groups who work as clerks or low-level workers, as well as in the informal sector selling snacks running small stores etc.

Table 9 A summary of households, inhabitants and the source of drinking water of the study area			
Kelurahan	Households	Persons	Source of main drinking water
Kalianyar	5494	28753	32% piped water, 20% water vendors. others well water
Muara Karang	1391	12418	52% water vendors/hydrant
Marunda	2852	11898	90% water tank
Bidara Cina	13343	45803	65% well water 35% piped water

Table 10 shows the difference in price customers pay for water from hydrant owners and water vendors. The price from water vendors is higher than the price of piped water paid by for middle income households, while middle income household who have piped water only pay rp 1600 per m3 poor people at Kalianyar have to pay Rp 10000 per M3 which is 6 times higher.

Location	Take directly at hydrant		Buy from Water Vendor	
	Per pair buckets	Per cart	Per pair of buckets	Per cart with 10 buckets of 25 l
Kali anyar	2 buckets of 25 l is Rp 300 or Rp 6 per litre	10 buckets with 25 l is Rp 1500 or Rp 6 per litre	2 buckets with 25 l is Rp 500 or Rp 10 per litre (Rp 10000 per M3)	10 buckets of 25 l is Rp 2500 or Rp 10 per litre (Rp 10000 per M3)
Marunda	No water vendors sell per bucket	10 buckets with 30 l is Rp 5000 and for rent a cart Rp 1000 (Rp 20 per litre)	2 buckets of 30 l is Rp 1000 and for rent a cart Rp 1000, the price is Rp 33.3 per litre or Rp 33300 per M3	No HHs take directly with cart
Muara Angke	2 buckets with 30 l is Rp 700 (Rp 11.6 per litre)	10 dirigen with 30 l is Rp 3500 (Rp 11.6 per litre)	No HHs take directly	No HHs take directly

*It should be noted that when there are problems with the drinking water, such as no flow or dirty water, the price per cart may increase by four to five times.

3.2 Perception of community and CBOs on the private sector involvement on drinking water

At the beginning of the interview we asked the respondents whether they knew of the partnership between government and private sector to improve the drinking water in Jakarta. Only 19 out of 34 respondents knew about such a partnership, indicating that the involvement of a private company is not well known to many of the respondents. Among the respondents who knew about the involvement of the private company the sources of information were a) newspapers, b) radio and television, c) visit related to survey, d) workers of PAM e) receipt of the water company.

The community was asked about their perception of the flow of drinking water, quality of drinking water in terms of appearance, smell, colour and the cost to buy the water. A total of 34 respondents were interviewed consisting of 8 respondents with piped water in their house, 10 persons who buy drinking water from water vendors, 6 persons who manage hydrants and 7 persons who work as water vendors and 3 HHs who used well water.

Table 11 shows that the majority of the respondents perceive the flow and the quality of drinking water to be the same as before privatisation. However 2 respondents perceived that the flow is better and one and that the quality is better. These data indicate that the expectations of improved quantity and quality of drinking water have not been met. In relation to the cost of drinking water half of the respondents perceived the cost to be the same as before privatisation. The percentage of the respondents who perceive the cost of drinking water to be the same is 55 % vs. 44 % who think it is higher after the PSP. (Further analysis shows that hydrant manager respondents perceive the cost to be the same and those who believe it is higher have the same percentage (50%) while water vendors thought the cost to be higher.) For the

households, the majority said that the price was the same (61%) and 38% thought the cost was higher. It is surprising that none of the households felt the cost to be cheaper, even though it is assumed that households have changed their source from water vendors to piped water. This can be accounted for by the high initial cost of a piped water connection, reflecting residents' views of increased costs after privatisation. These data indicate that only a few respondents feel there is an improvement in relation to the flow and quality of the drinking water and no respondents perceive the cost to be cheaper. The data clearly indicate that the Water Company must make greater efforts to increase the flow and quality of water as well as account for the perception that the cost of drinking water is higher under PSP. Given the cost of piped water, above all users must be convinced of the advantages of having piped clean drinking water in their houses, such as savings in terms of time and money and health benefits. It is ironic that those visiting households are served bottled distilled water or bottles of tea, the price of which compares to a bottle of gasoline and is several times higher than the cost of drinking water supplied by the Water Company

Table 11.: Distribution of perception of drinking water according to flow, quality and cost to buy according to different type of households

Respondents	Flow		Quality		Cost	
	No	%	abs	%	Abs	%
Household used PAM water(have piped water or buy from vendors)						
Better	0		1	4.7	0	
Same	17	80.9	18	85.7	13	61.9
Worse/higher	4	19.1	2	9.6	8	38.1
Hydrant manager						
Better	1	16.7	0	0	0	0
Same	3	50.0	5	83.3	3	50
Worse/higher	2	33.3	1	16.7	3	50
Water vendors						
Better	1	14.3	0	0	0	0
Same	4	57.1	4	57.7	3	42.9
Worse/higher	2	28.6	3	42.9	4	57.7
All respondents						
Better	2	5.9	1	2.9	0	0
Same	24	70.6	27	79.5	19	55.9
Worst	8	23.5	6	17.6	15	44.1

Beside the quality and cost of the drinking water, the expectations of the respondents regarding improvements in drinking water services were also discussed. Table 12 shows that the expectations of the respondents can be sorted under five main headings 1) quality of the water, 2) procedure to pay for the water, 3) equity, 4) cost and 5) response to the complaints. The data indicate that aside from water quality issues (such as flow, smell and the cost of the water), procedures for paying for water (such as friendly workers, avoiding double invoice, incorrect calculation of the volume of water) are also problems experienced by the respondents.

In the interviews only 7 respondents out of 34 said that their expectations had been met by the Water Company, indicating that the majority of our respondents are still dissatisfied with the current services.

Expectation	descriptions
Quality of the water	Continuous flow, not smelly and dirty, good taste, can be used for drinking and bathing
Procedure to pay the water	Friendly regular worker comes to the house on time, correct information, no double invoice, invoice or workers on duty should come on time every month and the meter reading should be precise.
Equity	Provide easy access to the poor through low tariff, public hydrant or other methods
Cost	Should be cheap, for hydrant the cost of repair should be shared among PAM and households
Response to complaints	Immediate reaction and follow up action from water company

Respondents were also asked whether the current drinking water system has benefited them in their daily life; 8 out of 34 respondents had perceived some benefit. The households, who use well water, were asked why they did not want to subscribe to piped water. All of them replied that well water is better than piped water. This indicates that there is a need to improve awareness among households of the hazards of well-water, as compared to the better quality of water supplied by the Water Company.

Benefit	Number
Yes	8
*No	26
Total	34

To ensure adequate access by low-income households to water supply, there is a need to improve the partnership of those actors involved in provision. These actors are: 1) government, 2) university, 3) non-government organisations and Community-based organisations

The respondents expect the government to monitor the process of water supply and its associated services and to guarantee affordable, good quality drinking water at a stable price over years. Communities also expect the government to be accountable to their demands and complaints.

Table14.: Expectation of the role of several institutions in improving drinking water in Jakarta

Institution	Descriptions
Government	<ul style="list-style-type: none"> To monitor and do ensure equity and improved access to the poor To keep water charges low and create simple installment payment arrangements? To monitor the invoices and the procedure for calculating the amount of drinking water that has been used To guarantee the quality of the water in terms of flow and safety with price stability over many years To provide facility for the poor such as public hydrants, water tanks etc. To monitor complaints from the community and demands of the community in areas which need drinking water
University	<ul style="list-style-type: none"> To facilitate and to work towards improved accessibility for the poor To implement research on quality of drinking water and the safety of the water To provide health education on the usefulness of safe drinking water and how to avoid contamination To look for alternatives for the urban poor to overcome drinking water problems, such as how to make efficient water tanks, to solve interrupted flow etc To support community demands to the government and to ensure that such demands are reasonable and have to be fulfilled To give input to government and other stakeholders
Non government organisations	<ul style="list-style-type: none"> To facilitate and to work towards improved accessibility for the poor, create networking to fight their case and demand the accessibility of drinking water for the poor To inform the community on how to use water efficiently To liaise between community and government in solving drinking water problems To organise capital for the urban poor to subscribe for drinking water To support the community in fulfilling their demands to the water company To check that community needs are fulfilled by the government To create partnership among several stakeholders
Community base organisations	<ul style="list-style-type: none"> To help the community with access to drinking water in disaster situations such as floods, riots etc.

Interestingly, communities expect the university to support the urban poor in their struggle to attain access to safe drinking water by testing the quality of their drinking water and giving health education to the community; In addition, the community expects the university to provide technical information to government and other stakeholders (such as water company and NGO) on the problems associated with the quality of drinking water and to provide possible alternative solutions.

Besides Government and University, there are also Non-Government Organisations and Community Based Organisations, which are generally expected to have a significant role in improving the circumstances of the urban poor. Non-Government Organisations are differentiated from Community Based Organisations (CBOs). A CBO is an organisation set up at neighbourhood or hamlet level and its committee members are also the inhabitants of this neighbourhood or hamlet

Our respondents anticipated that NGOs might create networks and thus aid the struggle for accessible drinking water for the poor. NGOs are also expected to liaise with both community and government and to create partnerships between the community and other stakeholders. NGOs are also thought to have a role in analysing community needs, organising capital and performing other activities, which will support the community and fulfill their needs. Some of those roles which the community expects NGOs to take may also be performed by CBOs, yet the

respondents feel that CBOs are only needed in specific situations such as a disaster (eg a flood or fire). This indicates there is a need to plan and to prepare a community to form a CBO in case of disaster. This may be done by government agencies, NGOs and other CBOs.

3.2.1 Perception of the officials and donors and NGOs

Table 15 reveals the expectations of government officials at city level (including the legislative council), international agencies and private company officials regarding the involvement of a private company in drinking water supply. Our respondents anticipated that the involvement of a private company might solve problems related to drinking water, improve access to water for the urban poor and provide drinking water at a reasonable price. The data show that there are similar expectations of the involvement of a private water company amongst these residents. However it should be noted that only private water company officials mentioned that one of the objectives is to benefit the Water Company. Although many people in the city earn a living from selling drinking water or tea in plastic bags or bottles, the fact that water can be used as a commodity to make a profit is not recognised by the majority of respondents.

Table 15.: Respondents views of problems that need to be solved.	
Respondents	Issue expected to be solved
Donors /International agencies	Water quality is good Cost for the water is reasonable and cheap Improved access to people especially urban poor
Private company Officials	Improve availability, access and services of drinking water to people Support government to overcome the drinking water problem in Jakarta Improve capability of workers in giving services to customers To provide benefit to stakeholders of the drinking water company
Government officials	Improved production, availability and access to drinking water Provide good services and easy administration procedures in drinking water Support government to provide drinking water for the people Cost asked to be paid is reasonable compared to quality of services

Besides residents' expectations of an improved service under PSP, we also discussed with our respondents their views on what should be done to ensure that the urban poor could secure an adequate supply of drinking water. Several suggestions have been outlined by the residents, which have been organised into the following categories (see Tables 16-18 for detailed activities):

a. Funds and resources

- Cross subsidy
- NGO organised people to participate in construction of pipelines and to provide other resources.

b. Improved services and management

- Improve the condition of the pipe network, replace old pipe to reduce leakage
- Provide financial alternatives for the poor to subscribe to piped water, such as through credit for instalments, no instalment fee

- Implement activities step by step in poor /slum areas.
 - Facilitate dialogue among community, government and private company
 - Transparency and public accountability on agreements related to drinking water which may be monitored by NGOs
- c. Create awareness of the urban poor and improve their practices**
- Educate people on how to use water efficiently, on the benefits focusing safe water and on the dangers of using contaminated water
- d. Condition**
- create competition among private company and government to provide drinking water
 - Make laws to ensure that the poor are subsidised and that their needs for water are addressed.

However, our respondents are also aware of the obstacles to such activities, which may be grouped into

a. Attitude and condition of government and private company

- Behaviour of the workers who do not provide the best services to consumers
- No user boards on which consumers' opinions may be represented
- Readiness of government to enter a privatisation agreement and provide services to the poor
- Need for clear targets and operational plans and the need to reduce monopoly on water services

b. Lack of resources and manpower

- lack of manpower to serve customers

c. Condition of some inhabitant areas

- no piped distribution network , need clear information
- There are persons trying to make profits by cheating the community

Table16.: Perception of officials regarding activities to provide drinking water for the poor and their constraints.

Activities	Constraints
Construct public hydrant	No money from Government. And people
Cross subsidy Improve the pipes and set up new distribution system Replace old pipes To use drinking water efficiently	Attitude and practice of people by making holes in the pipe. Attitude of the manager of the water company
To educate people how to use water and to treat and to place drinking water safely Let private company compete with government to provide drinking water for people and subsidy to poor and not to create collusion. Improve efficiency in managing water by government company.	Shortage of man power, hydrant monopoly No user boards for drinking water.

Table17.: Perception of NGO and CBO on activities to provide drinking water for the poor and their constraints.

Activities	Constraints
Make law that clearly defines subsidies for the poor Provide public taps for the poor Give credit for subscribe drinking water for the first instalment No fee for the first instalment Proceed step by step with a sample area, not the whole of Jakarta. Provide information and campaign to improve understanding of people about the importance of water and how to use efficiently and effectively. Also the harm of using well water for health and environmental and living condition. NGOs may organise people to participate in improving construction pipe etc NGOs give perceptions of the people related to services and policy of original drinking water NGOs have control over whether the agreement for providing drinking water is met for all stakeholders NGOs facilitate dialogue forum to look for solving problems among government, private company and consumers. Organise community to place pipelines for water distribution	Non-cooperative attitude of the officials, no clear target what to be achieved in each sixth months Government is not ready to do privatisation and at the same time take care the urban poor. There are new areas and slum areas without distribution pipes for drinking water. This table needs reorganizing
For the poor let government provide drinking water	

Table18.: Perception of private company activities to provide drinking water for the poor and the constraints.

Activities	Constraints
<p>Provide drinking water for the slum areas by installment of pipe with no fee Improve pressure of water so they can get at the endpoint/house Provide credit for community for installment no fee for installment of distribution pipe. Give explanation to the community on their plan to install pipelines for drinking water and its benefit for them Give information to reassure the community that they may get drinking following prescribed procedures.</p>	<p>Some communities reluctant in the process for installment of the pipeline NGO co-operate and give explanation of the benefit of privatisation of drinking water There are persons who may persuade the community that they can help them to get piped water and ask fee while in reality no cost is needed</p>

4.

Discussion and conclusion

The study was implemented during the period of November 2000 to March 2001. The objective of the study was to examine the agreements constituting and regulating the private-public companies in achieving their outcomes (in terms of investments, distribution of revenues/profits, costs to consumers and incentives to improve efficiency and service delivery). This study also aimed to describe the perceptions and expectations of different stakeholders in relation to public-private partnerships in drinking water in Jakarta. It has also presented measures to improve accessibility of drinking water for the urban poor in the current private-public partnership and its effect as understood by the consumers, CBOs and NGOs. It has also sought to examine the perceptions of consumers of the quality of service they receive and the marketing procedures employed by the PSP to motivate people who use ground water to subscribe to the piped water in the slums of Jakarta. Finally, it has explored and discussed ways of developing partnerships with community-based organisations to improve service delivery to low-income neighbourhoods. Several options have already been implemented to meet the special needs of low-income households.

To achieve these objectives this case study has relied on a combination of analysis of policy documents and agreements between public and private actors and in-depth consultations/interviews with different groups of stakeholders with a view towards ascertaining and comparing both their overall opinions on private sector involvement and their opinions on issues raised in the course of the analysis with regard to the PSP in Jakarta.

In order to ascertain the views of households, water vendors, and those persons who sell drinking water through hydrants, we selected four kelurahan for study. Two kelurahan are in the area where Thames Water Company) are responsible for distributing drinking water (Bidara Cina and Marunda) while the other two kelurahan are under the responsibility of Lyonnaise (Kalianyar and Muara Angke).

We interviewed 51 respondents, who were classified into 9 groups. Out of these respondents 31 were consumers of the water company (8 HHs are directly served by the Water Company, 10 HHs are served through water vendors, 6 respondents are hydrant managers and 7 are water vendors. The respondents were selected, at the neighbourhood level with the assistance of the CBO as well as heads of neighbourhoods.

Based on the literature reviewed we understood the challenges of improving access to drinking water in city through the involvement of Private Sector Participation as

- a. The customer receives an efficient service of appropriate quality at a fair price and
- b. The private sector obtains a fair rate of return for providing the services.

To achieve this, the private and public sector must work together within a framework of checks and balances so that the private managers are free to manage their affairs as efficiently as possible with the public sector having sufficient control to ensure that the private partner fulfils its obligation.

It has been suggested that there are several stakeholders who must be active in the regulation of the PSP, these include: 1) Government, 2) Private service providers 3) NGOs/CBOs.4) Employees, 5) Consumers, 6) Environmental interests, and 7) other citizens. These stakeholders have to be accounted for if the privatisation process is to be successful. In brief the main social concern with regard to private participation in drinking water is the increased access of people, including the urban poor, to water at a reasonable price and which fulfils quality standards.

Accordingly, some questions have to be answered, these include

- a. If the private sector partner is expected to invest in rehabilitating the system or expanding coverage, how will that affect the tariff?
- b. Will the current tariff cover costs after allowing for expected efficiency?
- c. If the projected tariff exceeds what some households are willing to pay, will the government provide subsidies; if not should investment programs be reduced to match financial capacity of the consumers?

4.1 The agreements of the private-public companies in achieving the outcomes and some related issues, which may affect the outcome of the partnership

As mentioned previously, PSP faces many challenges and is not easy to implement. The Jakarta Case illustrated other difficulties such as collusion and corruption in the process of selecting the Private Water Company, and the changing political situation necessitated the shift to PSP. Another factor that has affected the agreement and its implementation is the economic crisis in year of 1998, which necessitated the private company asking for an amendment to the agreement on water tariff.

The aim of the PSP in drinking water, as outlined by the former chairman of the National Planning Board, is to improve efficiency of infrastructure provision, which in turn will improve the quality of services provided to inhabitants, decrease the subsidy given by government to the water company and to share knowledge and technology between private companies, government and other stakeholders (Ramelan, 1997).

In brief there is concern regarding the fairness of the agreement in representing the interests of the government and people. Few government agencies and NGOs have had experience working with private agencies, and there is the perception amongst many agencies that the government should manage drinking water. This concern is illustrated by the report from Indonesia Corruption Watch, government officials, the demonstrations by PAM Workers and publications in the mass media. Although the private company tries to neutralise the information through some activities, it seems there is still a need to improve communication and the consultative process between the private company, government and other stakeholders. It is suggested that these issues must be solved by all stakeholders involved, otherwise such objections will become an obstacle to improved communication and partnership amongst stakeholders.

As mentioned previously, increasing the water tariff may also create tension among stakeholders. In the case of Jakarta, problems related to water tariff have been highlighted by Ramelan. According to Ramelan, in much of Indonesia the current water tariff is very low, is not based on the calculation of cost recovery, and as such, implementation of PSP often means increasing the water tariff. NGOs have argued that the water tariff should be synchronised with the quality of the water and customer services given by the water company. For some activists no improvement of the quality and services means no increase of water tariff. Regardless of this debate about water tariffs, drinking water tariffs in Jakarta have been increased.

Another issue that relates to the PSP agreement is the role of government as a regulatory body. The review of relevant literature highlighted the role of the government as a regulatory body, however, the ICW report concluded that the function of Indonesian government or regulatory body has to be improved.

In relation to the urban poor, we found no specific statement in the PSP agreement with regard to their welfare, however it is stated that the government should discourage people from using wells and encourage the usage of piped water. It is suggested that this be done through the creation of a tax for those households who use well water. This would be detrimental to those who cannot afford piped water and so use well water for washing and bathing, while others use it for drinking water as well.

The block tariff, which differentiates customers into five classes through a progressive tariff. However it should be noted that since the majority of the urban poor rely on cash monies, the price of connection together with the need to collect water between certain hours (usually night) and to construct a water tank may present a significant obstacle to securing access to an adequate water supply. Although buying water from a water vendor is more expensive for low-income households in the long term, as compared to subscribing to piped water, factors such as reliance on cash money, lack of ownership of the house, the fee for installation, the cost of a water tank or the time lost whilst collecting piped water means that the opportunity cost and the real daily cost is higher for installing piped water.

In Jakarta there is doubt about the achievement of the private companies, the law for supporting the privatisation of drinking water and the usefulness of involving private water companies in managing and providing water to inhabitants of the city. So the

justifications for PSP have to be cleared, the aims and the benefits for each stakeholder have to be clearly explained and made socially acceptable. The impacts should be measured. In the Jakarta case we see disagreement among NGOs and private companies. As a matter of fact these types of problems had already been pointed out by some high-ranking officials before the implementation (see Ramelan, 1997).

The private sector itself also has to increase its accountability for resources, activities, achievements and plans. These plans and activities have to be supported by other stakeholders. At this moment our study indicates some doubt on the openness of the private water company although some activities have been done for the urban poor as well as activities for improvement of the management and services provided by the water companies. These conditions, together with the problems raised by government workers in the government water company, have affected the privatisation process. The perceived lack of transparency may become obstacles to Public Private Partnerships.

From collated materials relating to the public-private partnerships in drinking water in Jakarta, the agreement and implementation of the partnership has been amended due to the change in responsibility from a joint venture between an Indonesian company with an international company to an International company with the government water company. This co-operation concentrated on the development of water infrastructure; improving the quality of distributed drinking water; achievement of comprehensive coverage of distributed drinking water; engagement of private sector participation in the production and distribution of clean water; improving management and efficiency of the water supply system; and providing a system for requiring customers to change from ground water supplies to piped water supplies where available.

The focus of the agreements concentrated on 1) water charges, 2) Investment programmes 3) Service standards. However the study reveals that not all stakeholders share the same vision with regard to the implementation of these objectives,

From the review it seems as though the water company has performed well in terms of the amount of water sold but has performed poorly with regard to consumer services and increasing the numbers of new customers. This indicates there should be improvements in control mechanisms and in collaboration among stakeholders.

Another important issue is that there should be a clear message from the government that the PSP does not contravene Indonesian Law, since there are several groups who have stated that the agreement was set up with consideration of Law no 11 1974 on water and Government regulation /PP no 20 1974 but ignoring other laws against the privatisation of drinking water. This indicates the need for a concise message from policy makers, supported by legislative council, that PSP has become government policy.

In relation to water tariff, as pointed out by ICW, there is also a need to clarify whether the water tariff structure is fair and does not make a deficit for the government or make excess profit for the private company. With the above

information it is obvious that building mutual trust among stakeholders has to be facilitated and set up in the near future.

The PSP agreement pays less attention to how to improve access to the urban poor. It may be assumed that the strategy to categorise the consumers into five groups is aimed at solving the problem of improving access to the urban poor, which in reality our study has shown not to be true. There should be other strategies and activities implemented for the urban poor otherwise these groups will be consuming drinking water at a relatively higher price than other inhabitants.

Another issue is the transfer of skills and technology from the private company to the government, although it is not clear how this will be achieved.

4.2 Perceptions and expectation of different stakeholders

In this study we interviewed several persons, who represented the interests of several stakeholders. The data indicated that among government and international agencies no respondents mentioned making profits from managing water in cities. This was only mentioned by the persons from the water company. These data indicate that there is a need to increase this knowledge and to discuss the role of the private sector in making profit from managing drinking water. Although many bottled water companies provide water at prices similar or higher than the price of gasoline this is not only consumed by middle and higher income people but also by people in slum areas of Jakarta. It is common in the slum area in many meetings in the slum areas for participants and their guest to be provided with bottles of distilled water

Most of the respondents expected a PSP to improve access to water for the urban poor and to provide reasonably priced drinking water. However there was no statement regarding the transfer of knowledge, management models and technology from the private company to the local government. This indicates the need to improve awareness of this potential benefit of the PSP and to set up further performance indicators for these purposes.

The private company officials also outlined the role of communities in increasing general understanding of the usefulness of the PSP and reducing the suspicion regarding the involvement of the private sector.

4.3 Measures to improve accessibility of drinking water for the urban poor in the current private-public partnership and its affect as well as the perceptions of consumers on water service quality

In improving accessibility of drinking water for the urban poor several measures have been applied, such as giving people the opportunity to pay fees for installation over the period of one year and providing hydrants and water tank for slum areas or poor areas which have not got a piped network. However for the poor, who mainly work in the informal sector and rent a room or house, it is still just as expensive for them to subscribe to piped water as to buy from water vendors.

The nature of the areas where low-income groups live makes people vulnerable to disaster such as fire and floods. From our interviews there is an expectation of a system to support them when there is a disaster and our respondents suggest that CBOs may play a role in supporting them. This may be done by training the CBO and creating links between them, and the Health department and Water Company, so when there is disaster the CBOs and its members may contact responsible government agencies and link with the private company to work hand in hand to help the inhabitants. The implementation of such initiatives may create a positive image of the private company in the eyes of the public.

Jakarta has much community based activity, for example in health sectors organised by women's welfare groups, in housing improvement organised by CBOs on housing, in economic sectors which organised poverty alleviation activities.

Many of the CBOs have linked with NGOs and have activities including health and nutrition. These CBOs have the potential to become a partner of a private company in raising awareness of the opportunity to subscribe to piped water and the health and long term economic opportunities in subscribing to piped water.

NGOs may work together with CBOs to assess demand of the households in poor areas on Drinking Water Company and outline several measures to solve the obstacle of households in subscribing piped water and may bring together many agencies including philanthropic organisations to mobilise resources to improve access of piped water for the poor.

In relation to efforts to increase awareness and to solve some problems related to resources and applied technology such as laying pipes in crowded areas, increasing public awareness of the health hazards of using well water for drinking. The academic institutions may play a role in increasing the awareness of the people and to look for appropriate technology, which may be applied in many poor areas in Jakarta.

One effect of privatisation, which our interviews highlighted, is that two years after the implementation of the PSP, the majority of the respondents perceive the flow and the quality of drinking water to be the same as before privatisation. However 2 respondents perceive the flow to be better and one respondent perceives the quality to be better. These data indicate that expectation of the improvement of flow of the drinking water; quality of the water is still high but has yet to be fulfilled.

On the issues of cost of drinking water, half of the respondents perceive the cost to be the same as before privatisation. The percentage of the respondents who perceive the cost of drinking water to be the same is 55% whereas 44% believe it to be higher. Further analysis shows that half the hydrant manager respondents perceive the cost to be the same and the other 50% claim to be paying more. For the Households the majority said that the cost is the same (61%) and those who claim to be paying more represent 38%. It is surprising that there were no households who thought the cost to be cheaper.

4.4 Alternatives in developing partnerships with community based organisations for improving service delivery to low-income neighbourhoods

In relation to accessibility of drinking water for the urban poor it is obvious that unless 1) water quality is improved 2) there is continuous flow of the water with good pressure 3) there is a subsidy on the fee for installment and 4) cheap water tariff, it is difficult for the urban poor to subscribe to piped water. Besides this the customer services have to be improved, for example 1) avoiding double charge on the same customers, 2) avoiding overcharge for the volume used, 3) immediate responses to problems and complaints, 4) short distance for office payment or easy access for payment.

The improvement of water quality as well as better customer services for the poor areas may be achieved by giving opportunities for youth groups as well as community groups, both of which are common in several neighbourhood areas. Work supported by philanthropic organisation such as Lions clubs, together with water company may create a link for payment and lines of communication when there are problems in drinking water. It is common in many neighbourhoods of Jakarta for youth or community groups to provide services to middle income households to help them to pay their electricity bill with some services fee. Their collaboration may be useful in creating jobs for the members of the community groups and at the same time create partnership among stakeholders in drinking water from the households to neighbourhoods. This collaboration may further expand to become a channel of communication, increasing awareness and used to explore some alternatives. On the other hand it may also be seen as an attempt to gain local support, which is in our opinion, one of the key factors for the success of many activities at the neighbourhood level, In addition if such a model is successful it could be replicated in other areas of the city.

If the private sector partner is expected to invest in rehabilitating the system or expanding coverage, how will that affect the tariff? It seems in Jakarta that the agreement has been set up so that government must compensate and pay the private water company. This agreement is considered unfair since it will only create profits for the private companies. Accordingly, the current tariff does not allow for expected efficiency because no incentive has been provided to the private company to make operations efficient. Alignment of goals among partners and mutual trust is essential for sustainable co-operations.

In relation to tariffs in Jakarta it seems that both Government and the water company assumed cross subsidy would be achieved through tariff blocks for five groups of customers. However the current majority of customers belong to the low-income groups (only less 60 % of the Jakarta inhabitants have access to piped water). Since the majority of the population of the poor still have access to non-piped water distribution, and the quality of service does not act as an incentive for these households to make piped water connections, the assumption that low-income households would benefit from cross-subsidy needs to be challenged and explored rather than assumed.

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