Regulating Public and Private Partnerships for the Poor

Cranfield UNIVERSITY

Case Study:

INDONESIA

KEY FACTS

Population
217 million

Urban population
44.5%

GDP per capita 2002
US$ 3,230

HDI rank
111/177

Population living < $2 / day
52.4%

Exchange rate
$1 = 9,230 Rupiah

Urban household water connections
31%

Urban improved sanitation
71%

Water Poverty Index
64.9

REGULATING PRIVATE PROVIDERS: Jakarta

About half of Jakarta's residents do not have access to municipal water, supplied by private operators Playja and TPJ. This figure drops further when public standpipe customers are discounted. The overwhelming majority of the urban poor are relying on an unregulated private water market. Constrained to a minimal level of discretionary powers initially, the Jakarta Water Supply Regulatory Body made early progress towards establishing good relations with the public and sees the improvement of the situation of non-connected households as a priority. The regulator also shows an interest in exploring alternative options in view of the generally accepted fact that service extension to all residents of Jakarta under existing arrangements is unlikely to be achieved even by the end of the concession contracts in 2022.

"Regulating means not only approving"
Achmad Lanti, Chief Regulator, JWSRB

Study city
Jakarta

Population
10,000,000

Regulator
Jakarta Water Supply Regulatory Body (JWSRB)

Service Provider
Palyja and TPJ

DFID

Knowledge and Research Contract R8320

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December 2005

Research Summaries

1. Regulating for the Poor
2. Economic Regulation
3. Literature Review
4. England & Wales
5. Chile
6. Argentina
7. Ghana
8. Philippines
9. Bolivia
10. Jordan
11. Zambia
12. Indonesia
13. India
14. Uganda
15. eConference
16. Alternative Providers
17. Customer Involvement
18. Technical & Financial Tools
19. Legal Tools
20. Pro-Poor Guidelines

Research Summary

Incentive based, economic regulation of monopoly water and sanitation providers is a powerful tool for improving services. Regulators determine the maximum water price ('price cap') to finance a desired level of outputs. Prices in high-income countries have tended to increase faster than inflation as society demands higher standards. The total revenue requirement (from which the price cap is derived) is determined by adding anticipated operating expenditure to planned capital expenditure (for capital maintenance as well as for improvements in quality, security of supply, service standards and service extensions), plus an acceptable cost of capital. Both opex and capex plans include efficiency targets derived from comparisons between a number of providers. Water companies are allowed to retain any further efficiency savings achieved within the price cap for a period (five years for example), an incentive to achieve even higher efficiency, before the benefits are shared with customers in reduced prices for the future.

This model has been adapted around the world with varying degrees of success, usually in the context of a Public Private Partnership, but until recently it has tended to be reactive rather than proactive regarding early service to the poor. There is now a recognised need for adequate economic regulation of public providers, as well as private companies, in lower-income countries, to deliver similar mechanisms for financeability and efficiency and as a prerequisite for developing effective pro-poor urban services.

The purpose of this DFID research project is to give water regulators the necessary technical, social, financial, economic and legal tools to require the direct providers to work under a *Universal Service Obligation*, to ensure service to the poorest, even in informal, unplanned and illegal areas, acknowledging the techniques of service and pricing differentiation to meet demand.

Looking to achieve early universal service, the research also considers how the role of small scale, *alternative providers* can be recognised in the regulatory process. *Customer involvement*, at an appropriate level, is seen as the third key aspect. The research investigates mechanisms for poor customers, and most importantly potential poor customers, to achieve a valid input to regulatory decision-making to achieve better watsan services within the context of social empowerment and sustainable

The Water Sector and Institutional Framework

In 1997, PAM Jaya, the provincial water provider with responsibility for the city's water supply, entered into contract with two companies to provide water to the city of Jakarta. With increasing demands on existing infrastructure from rampant urbanisation, the Government invited private funding to maintain, improve and expand the already stressed infrastructure, whilst making monetary gains in efficiency that only the private sector would offer.

The special capital region of Jakarta (DKI Jakarta) was divided into two parts with the initial intention of generating competition and creating yardstick information between the two. The eastern half was contracted to a joint venture between indigenous PT Kekarpola Airindo and Thames Water International (UK) (now PT Thames Pam Jaya, or TPJ), and the western part to a joint venture between Indonesia's biggest conglomerate, the Salim Group, and Lyonnaise des Eaux -Dumez (France) (now PT Pam Lyonnaise Jaya, or Palyja).

Since Indonesian law lacked provision for private sector participation in basic services, the regulatory framework existed only in the regulation-by-contract approach. PAM Jaya was thus reduced to an asset holding authority with monitoring and coordination duties to oversee the agreements. Central government's role existed only in guidance on tariff-setting and water quality, and controls national water resources and policy setting.

Amid an economic crisis afflicting the region, the contracts were later renegotiated to address imbalances in their division and address failing investor confidence. The Restated Cooperation Agreements (RCAs) initiated a new period whereby an independent regulator was established alongside PAM Jaya.

The Jakarta Water Supply Regulatory Body (JWSRB) commenced operations in November 2001 with limited powers. For a provisional period of 3 years, the JWSRB would:

- monitor and enforce compliance of contractual performance levels,
- develop mechanisms to resolve outstanding customer complaints,
- propose tariff adjustments to Government on behalf of the operators and
- arrange coordination between relevant government agencies to aid in implementation of the contract agreements.

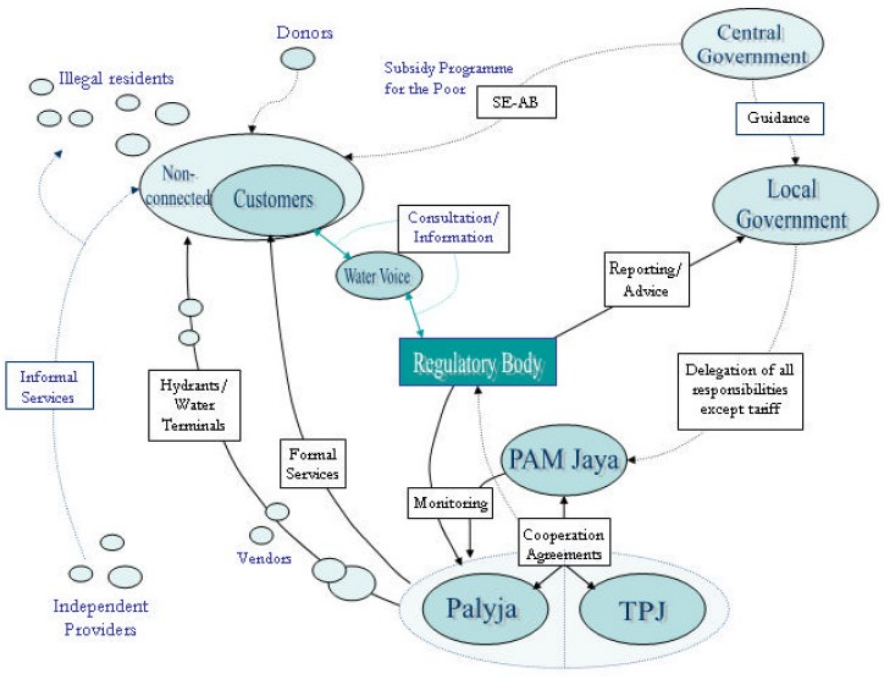
Currently the legal framework is undergoing reform, with local parliament set to empower the regulator by law with the ability to make jurisdictionally independent decisions to meet specified objectives in public health, economic sustainability, transparency, fairness, reliability, quality and affordability.

Legitimacy is to be derived from this legal mandate, which will render JWSRB directly accountable to the public, instead of being answerable to the Governor.

However, the 2005 Governor of DKI Jakarta Regulation No. 54 appears only to adjust the existing situation rather than transfer legitimacy.

Article 3 'Status, duties and authorities' describes how 'The Regulatory Body shall have the status as an independent and professional body that is free from the influences and power of other parties including the First Party and the Second Party in the Cooperation Agreement. In its capacity the Regulatory Body shall able to issue decisions in term of regulation, mediation, and arbitration with regard to the drinking water management and service in the DKI Jakarta Province based on transparency.'

However, Article 5 states that 'In implementing its functions, the Regulatory Body shall …..submit the proposed water tariff complete with basis of calculation and supporting reasons for each category of customer including those subsidized consumers to the Governor for tariff determination.' The vital regulatory



Above: Organisational framework for provision and regulation of Jakarta water supply.

Service to the Poor and USO

Tariff setting is carried out in accordance with Ministry of Home Affairs guidance dating from 1992. The guideline explains that the structure of the water tariff should adopt a progressive tariff system, with the water companies being able to finance their operations, making reasonable gains from their investments, and that cross subsidies should be implemented to achieve social objectives. A pro-poor pricing policy has ensued. The charging scheme allows for significant reductions for occupants of low-income housing with a simple flat rate charge for those obtaining water from public hydrants (see table, next page).

Service coverage ratios for Palyja and TPJ were 52.9% and 62% respectively (self-reported figures, July 2004), assuming 7.6 persons per connection and water supplied to public hydrants (from where water is sold on by vendors). At an assumed 380 persons per hydrant these contribute a large fraction of 'coverage'. Operator or central government-owned 'water terminals', represent the 'standpipe equivalent' in the remaining un-served areas, to which city water is supplied via water tankers.

There are various barriers which prevent presently un-served low-income households to access networked services and associated subsidies:

- Operators will not connect to illegal housing areas: without a licence; local regulation prohibits connection to the network.
- Connection fees remain elusively high, currently at about Rp 500,000; payment in instalment is only an option in the western part of Jakarta.
- Networks frequently do not reach low-income housing areas, particularly in the North.
- Some households prefer not to connect as municipal services are perceived as unreliable and of low quality.

Gender aspects
Women in a number of communities complained of bearing the brunt of water shortages when their husbands, as head of the household, were responsible for supplying water. One respondent said "In times of drought, only one or two wells are available to use. The community has to split themselves into two groups; one group can queue for water in a two-hour period in the morning and the other in the afternoon. Each family had to pay Rp 15,000 ($1.63) per month to the well owner to cover electricity costs."

Central government is taking steps to alleviate water poverty amongst the urban poor via the "Energy Subsidy for the Poor" (SE-AB) assistance program. Following hard-hitting increases in the price of fuel, the scheme aims to assist water-supply projects in low-income areas (pictured bottom left). Project funding is supplied to construct small-scale water systems, make household connections or help finance an increase in water tankers.

Groundwater pumping schemes from deep wells have been initiated in the past, often with donor assistance. In North Jakarta, where shallow wells are saline, communities of up to 50-60 households participate in the scheme, paying a tariff to meet both operational (electrical) and maintenance costs.

Public baths are prevalent in the city, making up the shortfall for those without bathing facilities at their house (pictured left). Using groundwater from a private well or an existing network connection, their private operators complained of making little money.

The poorest rely on steadily deteriorating "traditional" water sources. Residents in illegal settlements, who could be more accurately described as illegal residents occupying government-owned land near landfills, underneath flyover bridges, along railway tracks or riverbanks, rely almost exclusively on alternative sources, such as shallow wells, except where city water is obtained illegally or through intermediaries (vendors).

Above: privately-owned public bath

Left: water terminal funded by the SE-AB program

Right: Informal housing in North Jakarta

USO, Tariff and Legal Issues

A comprehensive Indonesian national policy framework for the water sector is under construction. The forthcoming Water Resources Act contains provisions to guarantee minimum access rights for every citizen, giving regard to the protection of economically weak sections of society. Institutional management guidelines for local water providers are expected to form part of a three-tier approach for urban, rural and fringe areas. Pro-poor development was cited as one of the basic principles of the forthcoming National Policy, but none of the laws contain any explicit statements regarding service provision to the poor.

The Governor's Regulation 54 states that 'The objective of establishing the Regulatory Body shall be able to ensure the provision and distribution of drinking water that meets quality standard, quantity, and continuity economy and affordability of the people.' There is no other mention of pro-poor aspects.

The concession contracts are arguably pro-poor in that the companies are shielded from the commercial risks involved in serving low-income customers as revenues are divorced from water tariffs. Operators receive remuneration dependent on volume delivered, which is multiplied by a fixed 'water charge'. At the same time there are no contractual requirements to serve the poor, and the financial imbalances that have arisen force the introduction of connection quota, which favour the better-off: PAM Jaya as the First Party to the concession agreements is now pressuring the private operators to seek a "balanced composition of connections", limiting water sold to the poor at below-cost prices and seeking an increase in new connections of high-income and commercial customers.

A steady increase in subsidies since the concessions were issued has culminated in consistently low tariffs for the low-income customers. This is in contrast to other wealthier income groups who have seen a marked increase in their water tariffs. The increase in tariffs to the poor were 16% at the beginning of the concessions, no increase in March 2001, and 17% increase consecutively in April and December 2003. This is in contrast to average water prices, which rose 18% in July 1998, 35% in March 2001, 40% in April 2003, and 30% in December 2003.

It was asserted that all registered residents of Jakarta are entitled to government assistance with basic services; the key to eligibility, however, lies in holding a valid municipality identity card. This automatically excludes immigrants, and Winayanti and Lang (2004) reported complications arising from the fact that the card cannot be obtained without a formal address. As an introductory letter from a registered neighbourhood association is required to apply for an ID card in the first place, this prevents illegal settlers from obtaining full resident status and denies them citizen rights.

Tariff Code	Description (see pictures below)	Tariff in Rp/m³ ($/m³)			No. of TPJ connections	No. of Palyja connections
		0-10m³	11-20m³	>20m³		
K1	Social and worship facilities, public hydrants	500 (0.05)	500 (0.05)	500 (0.05)	4183	3117
K2	Very simple housing, water tanks/kiosks	500 (0.05)	500 (0.05)	900 (0.10)	38693	51949
K3A	Very basic housing	2250 (0.24)	3000 (0.33)	3500 (0.38)	222690	106286
K3B	Medium housing and small business	3250 (0.35)	4000 (0.43)	5000 (0.54)	66103	75971
K4A	Luxury housing, medium business, government offices etc	4750 (0.51)	5750 (0.62)	6750 (0.73)	26455	74042
K4B	Commercial and industry	9100 (0.99)	9100 (0.99)	9100 (0.99)	9813	25033
K5	Special (port/shipping)	11000 (1.19)	11000 (1.19)	11000 (1.19)	2	0

Above: Sample housing associated with customer categories and tariff codes K1—K4B (from left)

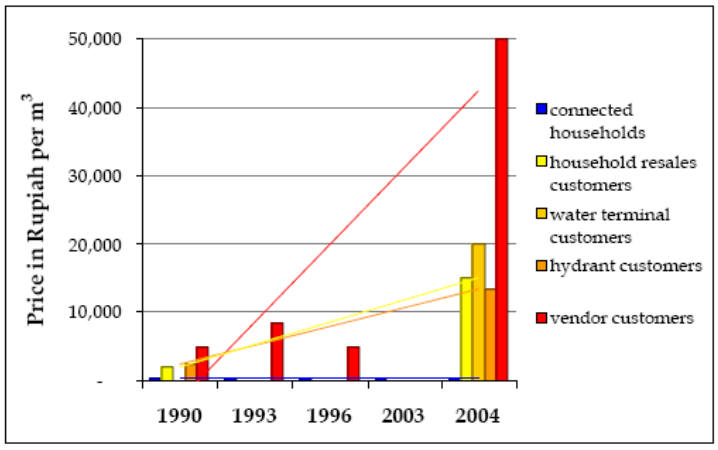
Alternative Service Providers

Water vending remains a thriving business in Jakarta. With a lack of available alternatives, whether because of the large distance to a water connection or the poor quality of groundwater, the water vendor has been allowed to flourish.

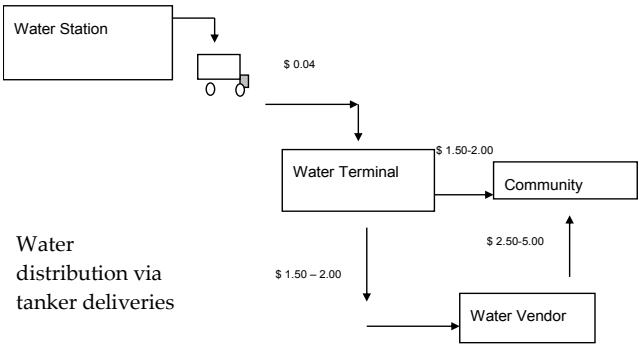
Above: "Tangki Air Bersih" – the trucks only supply "clean" water, not drinking water

The majority of mains-connected public hydrants are managed by private individuals, who are often reselling the subsidised water at market prices via a number of water carters. Where distance to the network is great, private water-tankers deliver municipal water to a number of terminals, where it is distributed in the same way.

These vendors operate without regulatory control and with no significant enforcement of price and quality controls. Price developments of formal and informal water supply options over the past 15 years have been traced in the diagram below. The figures reveal steeply



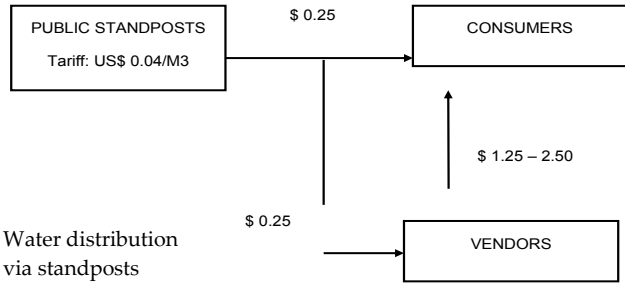
Above: Price developments of water supply typically accessed by low-income households. Trend lines were fitted to demonstrate steep increases in prices of "poor people's solutions" (yellow/orange/red) compared with household connections (blue).



Water distribution via tanker deliveries

rising water costs from sources available for the poor.

Various measures have been introduced at different times in an attempt to curb excessive vendor prices. In 1990, to initiate self-regulation through increased competition, the resale of city water was legalised so long as it was distributed through an approved water meter. Early evaluations of this deregulation measure indicated positive and significant effects both in terms of prices paid and quantities consumed by low-income households (Crane 1994) – but the scheme was soon abandoned. It is speculated that this was due to pressure from standpipe operators who saw on-selling



Water distribution via standposts

Note: The price is in US $ per m3

Above: Vendor having just delivered water to the doorstep in Kamal Muara, NW Jakarta

Customer Involvement

Chief Regulator Achmad Lanti initiated a mechanism for customer involvement only three months after coming into office. Customer involvement, he argues, is essential to comply with the customer protection mandate given to him in the Governor's decree. The Customer and Community Communication Forum (CCCF) was established as a formal communication platform, consisting of water professionals from Government, the Operators and the research community, as well as NGOs and community representatives.

The CCCF was later strengthened with the addition of water customer committees (WCCs). Set up to act as independent NGOs in the five municipalities of the city, the WCCs carry out public information campaigns via a quarterly newsletter and a website. Approximately 14% of the JWSRB budget (about Rp 200 million ($22,000)) is allocated to the WCCs, reflecting the high priority given to customer involvement.

Meeting every quarter, the CCCF handles macro-scale issues on behalf of customers, tackling demands from communities for network expansion or taking steps to help educate customers and providers alike.

The WCCs liaise with communities, companies and local government on customer complaints, lobbying for service improvements on behalf of underserved communities, but also assisting the operators in reducing illegal connections.

The WCC membership is open to all customers, but presently members are mostly politicians. Despite attracting some criticism, this benefits the WCC of being able to take advantage of existing links within the administrative system.

Water Voice System

To aid in collecting information regarding perceived performance levels of the operator, a system was devised utilising key stakeholders. Monthly meetings are held by the five municipal WCCs to address levels of service using key performance indicators: (1) continuity of supply, (2) quality of water at house taps, (3) water pressure at house taps, (4) response to complaints, (5) meter reading, and (6) billing (such as accuracy, prompt, and easy access to payment points).

The current arrangements, however, do not effectively target the poor. Most of those surveyed had never heard about the WCC, hardly surprising when the urban poor are the wrong target audience for a JWSRB newsletter and website. If, as the survey showed, in times of water scarcity women are suffering most, their representation is not being effectively made when only 2 of 52 WCC members are women.

Above: liaising with communities

Diagram above: Jakarta's five municipalities and the number of WCC members in each district.

Left: Customer excursion to water reservoir Jatiluhur, as part of the ongoing customer education and involvement strategy

Conclusions

Strong leadership and political commitment are crucial to achieving the universal service objective in DKI Jakarta. At present, water suppliers are caught in the middle of contradictory policies from government, requiring cost recovery on the one hand, but heavy subsidies to the poor on the other. An overhaul of the policy framework, clearly stating objectives for operators with respect to their social and economic functions and responsibilities, is long overdue, but unlikely to be achieved under the current water sector reform.

Loopholes created by framing legislation in general terms without detailed objectives, the means by which they are to be achieved and penalties for failing to achieve them, benefit, if anyone at all, only politicians seeking to retain control over sensitive aspects of infrastructure services.

The regulatory framework needs a clear separation of policy-making, implementation/operator and regulatory functions and an allocation of an appropriate balance of powers and responsibilities to each actor. Further integration of regulatory controls regarding raw water provision for formal operators as well as price and quality of alternative sources and suppliers would be desirable. The Jakarta Watter Supply Regulatory Board would benefit from establishing clear regulatory procedures, whilst PAM Jaya's involvement (and hence scope for interference) should be minimised.

The private operators Palyja and TPJ could be directed by a mission or strategy prepared by DKI Jakarta, detailing the envisaged developments in the urban water sector, and particularly with respect to service provision for the poor.

Priorities need to be re-examined in the light of the aspirations of customers and those presently un-served: Is it reasonable to require drinking water quality by year 10 of the contract, if similar investments could drive network expansion into new areas, retaining the 'clean' water standards Jakarta residents have become accustomed to?

Research findings have shown how creative and innovative even the poorest households can be in overcoming water quality problems, using simple and effective techniques, perhaps making a case for differentiating service standards?

The link between investment requirements and convenient, but affordable services must be made - it was suggested that Indonesian water suppliers should be able to access direct government subsidies intended for the poor as central government assistance experiences targeting problems and fails to reach the neediest recipients.

The complex and complicated tariff policy of cross-subsidies is failing to fulfil its intended social objectives. The problem is mainly attributed to the very large price differentiation between customer groups, encouraging commercial users to find cheaper alternatives with negative impacts on the environment (groundwater over-abstraction) and operators' revenue bases. There are also ingenious ways for middle-class customers to find their way into lower tariff categories. Customers with shared connections are penalised by the progressive tariff structure.

High connection fees and illegal resident status are preventing the poor from accessing formal water supplies.

Community-managed systems in areas beyond the reach of the network prove the workability of alternative solutions. JWSRB is exploring ways of encouraging such systems in order to shut out "water mafias", but again political support is needed.

Low-income housing, close to the sea, Jakarta

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