

## Output-Based Aid in Indonesia: Improved Access to Water Services for Poor Households in Western Jakarta

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Jakarta's water supply has been managed by concessionaires since 1998. However, following the impact of the Asian Financial Crisis, investment in network expansion has been severely curtailed and poor households in particular have not been able to access individual or group piped connections. Many of the urban poor also live in illegal or informal slum communities where such access is not permitted. As a result poor households have had to rely on very expensive supply from informal water vendors or the use of polluted groundwater. This paper reviews experience with a pilot output-based aid (OBA) project which aims to provide sustainable access to safe and affordable piped water services to low-income households in six legal and illegal/informal communities in western Jakarta. Over 5,000 households have been connected to the network and the project is now starting a second phase which will focus exclusively on informal or slum communities.

PAM Jaya, the local government-owned water utility, is responsible for the provision of water supply services in Jakarta, a city of 10 million people. In 1997, PAM Jaya entered into Cooperation Agreements with two international concessionaires: TPJ (Thames Water) and PALYJA (Suez). TPJ supplies water in the eastern area and PALYJA in the western area of the city. When the Agreements were revised in 2001, the Government of Jakarta (DKI Jakarta) created a special body, the Jakarta Water Supply Regulatory Body (JWSRB), to regulate water services.

In 2005 the concessionaires provided piped water services to approximately 61 percent of Jakarta's inhabitants. The quality of service was generally considered to be good, although the water was not considered potable and most residents boiled the water before consuming it. The city also suffers from raw water shortages and as a result there is insufficient water in the system to meet the demand of all connected customers. This shortfall affects the quality of service in many areas. Water shortages also limit the concessionaires' ability to extend service to new areas (particularly in northern and western Jakarta).



Photo courtesy of PALYJA

Both concessionaires were affected by the Asian Financial Crisis in 1997–98. During this time, the concessionaires and DKI Jakarta agreed to limit investment in the system, which slowed the rate of new connections and system improvements. The concessionaires and PAM Jaya agreed on a new investment program during a rate-rebasing in 2003, which led to an increase in the rate of new connections. However, planned investments in new connections will not be enough to reach the 100 percent coverage target required by the end of the Agreement period in 2023.

In 2005 the concessionaires approached GPOBA for support in piloting an OBA approach to improve access to piped water supply in poor communities, including informal or slum communities. Since the proposed project would target low-income households that could not afford to connect to the network, and the concessionaires were prepared to fully pre-finance the required investment, GPOBA agreed to fund consultants to help the concessionaires design the OBA scheme. In November 2007 a grant in the amount of US\$2.57 million was awarded to

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PALYJA for subsidy funding for making connections to low-income households. The scheme was initially planned to be completed by the end of 2009.

## Barriers to Service Access for the Poor

Many people in the un-served areas of Jakarta belong to the lowest income brackets. There are a number of reasons why these areas are not served. These include:

- The concessionaires lack the required capital to make investments to extend their networks to these areas.
- Many of the poor live in ‘illegal’ areas where the concessionaires are not authorized by DKI Jakarta to extend their network.
- Many of the poor do not have the required paperwork<sup>1</sup> to be eligible for a household connection.
- Insufficient raw water limits the ability of the concessionaires to offer a reliable supply of water to customers in the northern part of the city.

Where poor households live in serviced areas, they face an additional access barrier—they cannot afford to pay the regulated connection fee. As a result, poor households rely on a number of ‘informal’ sources of water and in many cases pay over thirty times more for water supply than they would if they were connected to the piped network. Often they also have to rely on water sources that are contaminated.

## Targeting and the City’s Spatial Planning Policy

The OBA project is targeted at small pockets of households or communities located within larger areas that are already served by the concessionaires. Given the technical, social, and economic constraints on increasing service access in Jakarta, communities were screened for eligibility on a number of criteria:

- Poverty level – poor communities were targeted.
- Service levels – there should be sufficient water to supply the new community (without negatively impacting existing customers).
- Tertiary network – service provision should only require installation of tertiary network (not extensions to secondary network).
- Groundwater quality – areas were targeted with poor quality groundwater.
- Spatial planning (a government policy criterion) – this excluded communities illegally located in areas

that were designated for industrial or commercial development, green-space areas, areas where density exceeds permissible levels, and areas along rivers or railroads and under toll-roads.

DKI Jakarta’s spatial planning policy criterion had the effect of excluding all of the proposed slum communities. However, since the GPOBA program is specifically targeted at poor communities, the Jakarta government was persuaded to allow one pilot program to be run in one slum community. If this pilot was successful, DKI Jakarta would consider replicating this approach in other slum communities.

## Service Access Affordability

Two types of service were made available: a standard “Type I” connection and a “Type II” connection for high-density informal or slum communities which would be developed by PALYJA on a pilot basis. Originally it was planned that Type II connections would be made on a ‘master meter’ basis (one bulk supply meter for a whole community), but this was rejected by community members in preference for standard, individual household metered connections.

The then regulated connection fee of IDR 474,000 (US\$50) posed a substantial barrier for poor households<sup>2</sup>. Following community surveys and consultations, and extensive discussions between PALYJA, the regulator, and an active nongovernmental organization (NGO) named Forkami (Forum for Drinking Water Quality), it was decided that the subsidized connection fee would be IDR 120,000 (US\$13) for a Type I connection and IDR 12,000 (US\$1.3) for a Type II connection.

## Subsidy Mechanism and Uptake Risk

Although both DKI Jakarta and the regulator supported the OBA scheme, they made it clear that tariffs would not be adjusted to accommodate the costs of extending the network in the project areas. Tariff increases had already been postponed in the aftermath of the financial crisis and the concessionaires were owed large sums of unpaid fees. Consequently it was agreed that the cost of both tertiary network extension and service connection would be subsidized through the OBA pilot.

The unit subsidy was based on an independent review of PALYJA’s cost estimates, using market benchmarking. The total scheme cost was divided into two elements: the cost of the network to serve all potential households (IDR 11.6 billion or US\$1.3 million) and the cost of individual household service connections (IDR 812,450 or US\$90 per connection).

PALYJA's experience in network extensions had shown that households were slow to apply for new connections. Since there were concerns as to how many poor households would actually connect to the network within the OBA project period ('uptake-risk'), despite the subsidy, a target connection rate of 46.5 percent was agreed with PALYJA based on willingness-to-connect assessments from community surveys. If this target was met then all pre-agreed tertiary network extension costs would be fully reimbursed. Failure to meet the target, however, would result in partial reimbursement of such costs on a sliding (pro rata) scale—thus incentivizing PALYJA to maximize the speed and rate of connection uptake.

## Defining Outputs

The output for this OBA scheme is sustainable access to piped water services, as evidenced by (i) a working Type I or Type II connection and (ii) three consecutive months of satisfactory service provision (as defined by PALYJA's level of service obligations, e.g., pressure). Given the raw water shortages in Jakarta and resultant supply problems, satisfactory service delivery included an additional requirement for average billed volumes to be at least 360 liters per day. 75 percent of the subsidy would be paid to PALYJA upon independent verification of the installation of a standard working connection and the remaining 25 percent after verification of three consecutive months of satisfactory service delivery (as evidenced by billed consumption).

## Contractual and Institutional Arrangements

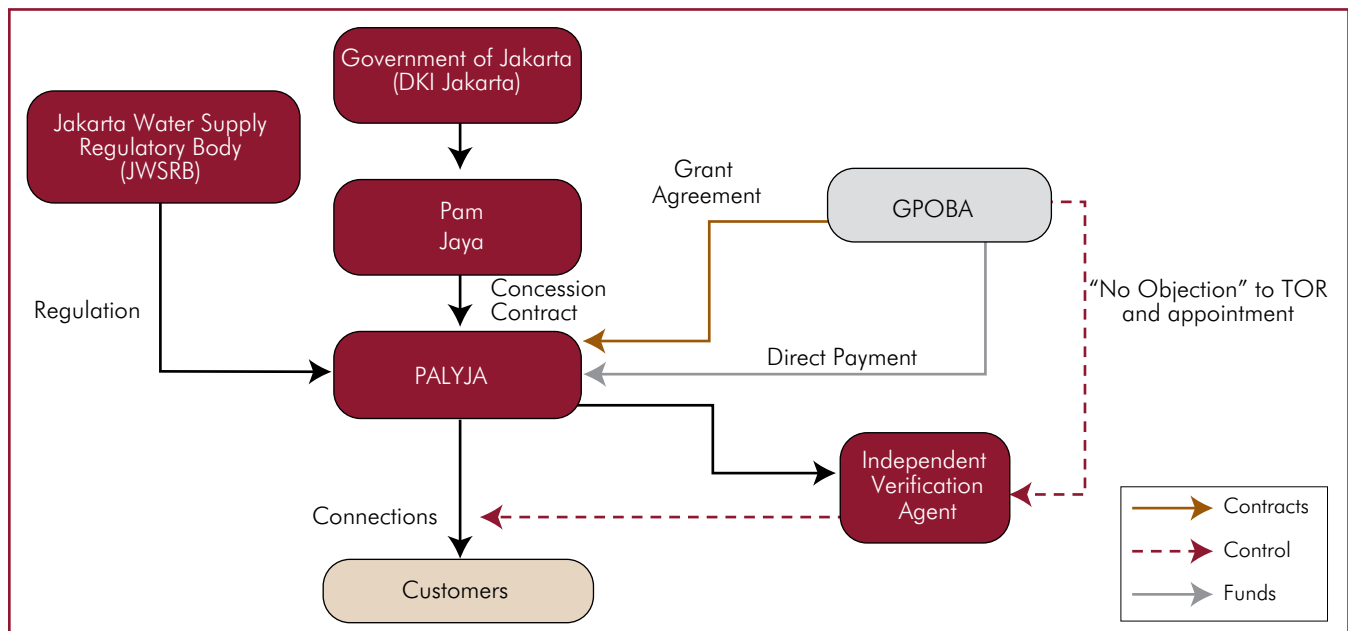
Figure 1 summarizes the contractual and institutional aspects of the scheme design. A Steering Committee was established for project implementation, comprising senior representatives from all the stakeholder organizations. The Regulator (JWSRB) reports to the Governor of DKI Jakarta's office and has a role in signing off invoices submitted by PALYJA for subsidy disbursement. The Independent Verification Agent (IVA) is appointed by PALYJA, but the terms of the appointment, and actual procurement, require GPOBA approval. GPOBA also explicitly funds the IVA through the Grant Agreement.

The IVA selected was a local technical consultancy company. It is responsible for verifying that connections are installed to PAM Jaya standards and that satisfactory service provision has been delivered. The IVA's Verification Report is attached to PALYJA's disbursement request.

## Results so Far

Phase 1 has recently been completed with PALYJA achieving its target connection rate. 5,042 poor households have been connected to the network in six low-income communities (4,629 Type I and 413 Type II). There were some initial issues with quality of work undertaken by the IVA, but these were

Figure 1. Contractual Arrangements and Funds Flow



addressed. The IVA, in its initial review, rejected a number of connections (less than 5 percent)—mainly in relation to missing meter boxes—and PALYJA undertook the required corrective actions. Disbursements for the two outputs for the first phase of the project have already been approved for payment, totaling about US\$1,345,000. PALYJA is now in the process of procuring surveyors to identify eligible communities for Phase 2, which will focus exclusively on informal or slum communities.

PALYJA has had to overcome a number of serious challenges in implementing this OBA scheme and achieving the target connection rate. Some of the challenges have been political (government eviction of eligible households from project areas), some technical (water availability), and some regulatory (tariff increase cancellations resulting in project-related investment cutbacks and delays).

In the pilot illegal settlement or slum community project (Muara Baru) PALYJA also encountered problems in dealing with the existing informal water suppliers, including public hydrant 'owners' and an informal local leader. With highly profitable revenues at stake, PALYJA workers were physically threatened and security concerns caused significant delays in developing the pilot. Under these circumstances local political support for the pilot evaporated and PALYJA had to undertake protracted negotiations directly with informal suppliers to complete the pilot. Proposed solutions included the provision of related business opportunities for those affected, such as management of public lavatories or new hydrants in a nearby area. Unfortunately, these proposals failed to unblock the situation. In the end, the informal local leader agreed to act as PALYJA's representative in the community and the security issues were subsequently resolved.

## Lessons Learned

This project illustrates the importance of managing stakeholder support throughout scheme implementation. Managing political stakeholders and political economy issues at all levels can be critical, especially when dealing with informal slum communities. Even though DKI Jakarta and PALYJA had established a stakeholder steering committee, and PALYJA worked closely with local community leaders, community-based organizations (CBOs), and NGOs, significant delays in implementation still occurred.

PALYJA recognized that community outreach and engagement was critical to successfully meeting its connection targets. It engaged the NGO Mercy Corps, which was active in many of the project communities, to help with the promotion and socialization of the project. For example, CBOs were created to help with billing and collection; households were made aware of their rights and obligations as new customers; and community focus groups were established with community leaders to encourage female participation in the project.

These experiences, and those of dealing with existing informal local water suppliers, are being incorporated into the planning for the second phase of the project which is expected to be completed by end 2011.

<sup>1</sup> To be able to apply for a connection to the water supply system, a household is required to have a KTP (Kartu Tanda Penduduk), which is the citizenship card for Jakarta, and a PBB (Pajak Bumi dan Bangunan) which shows that they have paid their Land and Building Tax. Many of the poor do not have the PBB because they do not own the land they live on. In the slum areas, there is also a high level of migration from outside of Jakarta so many residents do not have the KTP for Jakarta.

<sup>2</sup> Current connection fee is IDR 627,500 (US\$70) for K2 tariff category households (house area less than 28.8 square meters) and IDR 961,500 (US\$107) for K3A households (house area less than 70 square meters).

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