49290

GPOBA
The Global Partnership on Output-Based Aid

INDONESIA
PROJECT APPRAISAL-COMMITMENT DOCUMENT

Project Name: **OBA for improved access to water services in Jakarta (P102529)**

Scope: Expanding access to water services to low income households in Jakarta through two incumbent international concessionaires, and piloting an innovative approach to "illegal" community service access.

Total project costs: **$3,750,402**

Total GPOBA funding requested: **$3,593,340**

- Subsidy funding = $3,443,340
- Project implementation/consulting = $100,000 (audit and verification)
- Bank/GPOBA supervision = $50,000

Additional funding sources: user contributions of IDR 120,000 (USD 13) per household connection for Type I connections and IDR 12,000 (USD 1.2) for Type II connections – totaling USD 157,062.

Outputs: **connections** to water network

- Connection to network
- Three months of billed consumption, with minimum average consumption of 360 litres per day

Potential beneficiaries:	First Phase	12,068 households	(57,926 people)
	Second Phase	2,625 households	(12,600 people)
	Total	14,693	70,526

GPOBA subsidy "efficiency": for 100% connectivity - $49/person ($51/person with project implementation costs);
for 60% connectivity - $68/person ($72/person with project implementation costs)

Targeting: Clusters of poor households where sufficient water quantity and pressure is available

Grant recipient: Thames Pam Jaya and Palyja (local concession companies under control of Thames Water and Suez respectively) in two separate Grant Agreements. It may be that one Grant Agreement is signed with one Recipient only, or at an earlier date than with the other Recipient.

Financial Management: GPOBA subsidies will be disbursed directly to private operators. Independent auditor (output verification) and local regulator (GBOBA invoice sign-off). [to be confirmed by FM specialist in Indonesia]

Disbursement:

- 75% after connection verification
- 25% after 3 months satisfactory service delivery (billed volumes)

Procurement: Scheme design consultants have benchmarked the unit capital costs proposed by the applicants against each other, and against the price of recent similar contracts in Jakarta. Significant savings achieved compared with initial proposals [to be confirmed by Procurement Specialist in Indonesia]

Environmental clearance: Pending.

Government endorsement: Yes

- Government of Jakarta Province (DKI Jakarta)
- Jakarta Water Supply Regulatory Body
- PDAM Jaya (Jakarta water utility)

Exchange rate: IDR 9,100/USD

A. STRATEGIC CONTEXT AND RATIONALE

A.1. Country and sector issues.

Indonesia is classified as a DAC III country, although from a Bank perspective it is an IDA/IBRD blend country. Key national statistics are provided in the table below**:**

	2004
Population growth (annual %)	1.35
Population, total (millions)	217.59
Life expectancy at birth, total (years)	67.36
Mortality rate, infant (per 1,000 live births)	29.60
GNI (current US$) (millions)	245525
GNI per capita, Atlas method (current US$)	1130.0
Prevalence of HIV, total (% of population ages 15-49)	0.09

Indonesian Water Sector

The Indonesian water sector is currently in a precarious position. It suffers, inter alia, from tariffs set well below full cost recovery levels, low connection rates and declining service ratios, high network leakage/illegal connections (NRW), poor levels of service, high indebtedness, short-term political interventions and poor management capacity/ governance. These problems have led to a vicious cycle of negative cash flows, underinvestment and insufficient maintenance, increasing indebtedness and default/arrears on loans. The situation has been further exacerbated by the impact of the government's decentralization program, launched in 2001 without a supporting national strategy/policy or legislative underpinning. A majority of the PDAMs (Indonesian public water utilities) generate insufficient funds to cover operating costs, let alone invest in expansion and performance/service improvement to increase cash flows in order to service this central government debt. The result of this situation is a financial impasse where the government is not prepared to fund the PDAMs further until they repay outstanding debts. This situation has also hampered any significant private sector involvement, although the Bank is looking to pilot the DBO model.

Currently only 17% of households have access to piped water. For Indonesia to achieve MDG 7, Target 10 (halving by 2015 the proportion of people without sustainable access to safe drinking water), annual water sector investment must increase from IDR 450 billion (USD 5m) to at least IDR 4.15 trillion (USD 450m).

Without access to piped supplies, households are reliant on shallow and deep wells. Ongoing use of such sources is becoming increasingly unsustainable, particularly in urban areas. Lack of adequate sanitation has led to increasing contamination of shallow groundwater sources and associated incidence of water born diseases; and the over-pumping of deep wells has led to salt water intrusion in coastal aquifers and ground subsidence. Alternatively, poor households rely on water vendors and have to pay many times the piped water tariff for their water – this can mean poor households paying at least 10% and sometimes more than 20% of their income on vendor-distributed water.

In general, ability and willingness to pay is not an issue in terms of tariffs, but connection charges can, and often do, constitute a barrier to entry for the poor. There is evidence that most of those that are unconnected, but want to be connected are urban poor, with a large proportion of them being the very poor[1].

Prior to the 2001 decentralization program the Ministry of Finance (MOF) used to provide financing to PDAMs by means of sub-loan agreements (SLA), bearing much of the risk and burden of any unpaid loans. Current PDAM indebtedness stands at around IDR 5.2 trillion (USD 570 million)[2]. Of the 318 PDAMs, only 38 are deemed financially "healthy"; of the 445 Local Governments (LGs, comprising kapupaten and kota) almost half (209) have both arrears in their PDAMs and Pemda to MOF.

Jakarta Context

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 concessionaires: TPJ and PALYJA. TPJ supplies water in the eastern area and PALYJA in the western area of the city. When the Agreements were revised in 2001,[3] the Government of Jakarta (DKI Jakarta) created a special body, the Jakarta Water Supply Regulatory Body (JWSRB) to regulate water services.

Currently, the concessionaires provide piped water services to approximately 61 percent of Jakarta's inhabitants.[4] The quality of service is generally considered to be good, although the water is not considered potable and most residents boil the water before consuming it.[5] The city also suffers from raw water shortages ie 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 Jakarta).[6]

Both concessionaires were affected by the Asian Financial Crisis in 1997-1998. 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

[1] Indonesia – Enabling Water Utilities to Serve the Urban Poor, World Bank 2006
[2] Koran Tempo, March 17, 2006 reporting on Ministry of Public Works evaluation of PDAM debt
[3] Following the difficulties faced by the concessionaires during the Asian Financial Crisis in 1997-1998, the parties agreed to amend the Cooperation Agreement. An important change was to reduce the investment requirements for a period of five years. Other changes included changes in the ownership structure of the concessionaires (the local partners were removed) and the creation of the Jakarta Water Supply Regulatory Body.
[4] Coverage levels are 55 percent in the west zone (PALYJA) and 68 percent in the east zone (TPJ).
[5] The concessionaires are currently required to meet the Ministry of Health 'Clean' Water Standards which are less stringent that 'Drinking' Water Standards. According to data from the JWSRB, in 2005, PALYA fully complied with the total coliform standard for Clean Water, and 98 percent of TPJ's samples met the requirement. However, water supplied by both concessionaires failed to meet residual chlorine standards required by Drinking Water Standards
[6] The Jakarta Water Supply Regulatory Body estimated water shortages of 500 liter/second in 2005 (based on a service coverage level of 60 percent). Based on the projected increase in service coverage to 70 percent, the Regulator estimates that the raw water shortfall will reach more than 6000 liters/second by 2010.

100 percent coverage target required by the end of the agreement period in 2023. PALYJA, for example, estimates that it will increase coverage to 70-75 percent by the end of the agreement if the investment program stays on track.

Many people in the currently 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[7] 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.

In areas where there the concessionaires are not providing services, households rely on a number of 'informal' sources of water. These include:

Groundwater - some parts of Jakarta, particularly in the north, have groundwater that can be accessed through shallow wells. In some areas, this groundwater is contaminated, making it unfit for human consumption. The City would like to restrict the use of deep wells (boreholes) because it is putting pressure on the aquifer (saline intrusion and ground subsidence).

Public hydrants, pushcarts, water terminals - there are a number of public hydrants throughout the city (particularly in West and North Jakarta). These are supplied by the concessionaires,[8] but are often controlled by water middlemen who sell the water to community residents.

Deep wells - the City (DKI Jakarta) has installed several deep wells in different parts of the city. In many cases, these wells were installed without coordination with the concessionaires

Neighbors - some households buy water from neighbors who may have either a (legal or illegal) piped connection, or their own water pump to abstract groundwater

Rivers - some residents pump or directly collect water from the river. Because of the limited sewerage network in Jakarta, the river also acts as a main channel for sewerage collection.

In many cases, households pay 2.5 to 3 times more (and significantly more in some areas) for water supply from informal sources than they would if they were connected to the piped network. In addition, they often rely on water sources that are contaminated.

A.2. Rationale for involvement

[7] 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 the citizenship card for Jakarta and 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.

[8] There are currently 601 public hydrants in PALYJA's area.

This project meets GPOBA operational criteria, as well as the core OBA principals of:

- explicit use (i.e. targeting) of subsidies;
- increasing accountability of service providers;
- attracting increased private participation in operations and financing;
- providing incentives for innovation and efficiency;
- enhancing sustainability; and,
- monitoring of results.

GPOBA has a mandate to fund pro-poor output-based subsidies in the water sector and an OBA pilot in Jakarta would help fulfill that mandate. Further, this is a "non-Bank" project, thereby fulfilling another requirement of DFID, one of GPOBA's donors.[9]

This project helps to strengthen the role of the incumbent international private sector concessionaires in delivering water services to poor communities, many of which are "illegal" and have not previously enjoyed political support for service access.

This project introduces an innovative risk sharing mechanism for output delivery, and efficiency has been ensured through benchmarking unit costs against current market rates.

Sustainability has been enhanced through the establishment of a project Steering Committee to advise on the project design and implementation - comprising the key stakeholders in the project (DKI Jakarta, Regulator, PDAM Jaya, TPJ and Palyja). Indeed, the Committee was established through a gubernatorial decree. The Committee is assisted by a Technical Team that has been responsible for day-to-day communication on the project. This is an important development given the previous poor relations between these parties, and their unwillingness to seriously address the issue of access to water services in Jakarta's poorer/ informal communities. Subsidies are one-off investment subsidies and subsidy payments are made after output delivery.

Chances for replication are reasonable, with a number of references to using the OBA model in the latest draft of the Strategy Paper for the water sector[10]. The potential for establishing an OBA Fund for the Indonesian water sector is also under review[11]. The Bank is also discussing the development of a water supply OBA scheme with GPOBA and USAid in Indonesia's second city, Surabaya.

A.3. Higher level objectives to which the project contributes

The scheme is consistent with the National Action Plan on Clean Water (NAP-CW), issued by the Ministry of Public Works in 2004 which aims to halve the proportion of people without sustainable access to safe drinking water by 2015, in accordance with MDG number 7. It is also compatible with the Utility Platform of the current CAS, with its focus on corporate governance and efficiency in water supply.

In the above referenced Strategy Paper and Concept Note, output based aid is seen as a potential vehicle for targeting service delivery to low income households, leveraging public (central

[9] However, this project is undergoing all Bank safeguard and fudiciary checks. The task team has also worked closely with the Jakarta-based Bank water sector specialist for Indonesia.
[10] Financing Piped Water Services in Indonesia (Draft Strategy Paper) October 2006
[11] Performance Based Subsidy Fund for the Indonesian Water Sector – Concept Note (Draft) 2006

government) and private sector finance and driving sector reform (scheme sustainability criteria would force tariff increases towards cost-recovery levels and improve utility performance).

B. PROJECT DESCRIPTION

B.1. Project development objective and key indicators.

The objective of the project is to increase piped-water access for poor households in Jakarta in a sustainable manner through incumbent international operators. Achieving this objective should result in:

- access to affordable and reliable clean water services;
- health benefits from reduced exposure to environmental risks posed by unsafe water (reduced morbidity and mortality rates – especially in infants);
- economic benefits from reduction in medical expenses to treat water borne diseases, increased productivity and capacity to work due to reduced morbidity and associated reduction in sickness related absence from work, reduced household expenditure of clean water (water tariff lower than cost of many alternative sources); and
- social benefits from equitable access to clean water for informal/illegal communities currently disbarred from access by DKI Jakarta spatial planning policy.

The main development objective of increased access will be **measured by the number of increased working connections of a specified quality.** Key indicators will include the number of new connections and associated volumes of water billed/consumes by each household

To ensure that the scheme will result in least cost solutions, the project unit costs have been benchmarked against current market rates for such work in Jakarta. The concessionaires will also employ Bank approved competitive bidding/procurement procedures in a transparent manner.

B.2. Project Components

The term sheet for PALYJA is included in Annex 8 and contains the details of the services that will be offered, how the outputs will be defined, how these will be verified, the indicative subsidy amount that will be paid per output, the process for establishing the final amount of subsidy, the mechanics on how subsidy payments will be computed for various levels of consumer up-take, and the rules for computing the final payment to the concessionaires (the TS for TPJ is essentially the same, except with different WTC and unit cost assumptions).

The term sheets are the product of several rounds of negotiations and discussions among various stakeholders to the GPOBA Program, including GPOBA, PALYJA, TPJ, the Jakarta Water Regulatory Body (JWSRB), and PAM Jaya. These terms reflect the consensus among these stakeholders.

B.2.1. Types of Services to be Subsidised

Two types of service will be offered to the selected communities:

Type I Connection (Individual household connections)—This is a standard metered household connection with an underground connection pipe rising from the ferrule (stop-tap)

Type II Connection—This type of connection was developed for high density, very low income areas in which most houses do not hold a title to the land on which the house is built – that is, for illegal settlements.[12] Each household will have a meter and underground service pipe connection.

For Type II connections it was initially planned to construct an above-ground distribution system, with a master meter and an un-metered household connection. However, after the surveys conducted by Forkami in Muara Baru, it became clear that that majority of the interviewed households would prefer to have an individual meter, rather than pay a flat volumetric charge to connect to a community master meter. Furthermore, PALYJA has indicated that an above-ground distribution system will lead to technical complications; although an above-ground system would results in upfront cost savings, it would lead to operational problems and increased O&M costs in the longer term.

These Type II connections will be piloted for the first time in Jakarta under the GPOBA Program, initially in one slum area and, if successful, in a further six slum communities (phase 2 of the project), representing an additional 2,625 potential households.

B.2.1.1 Type I Connections

Type I Connections will be offered in legal, low-income communities where it is feasible to lay the distribution network in accordance with standard utility practices.

Connection charge

The normal connection charge for a 20mm connection for a Group II[13] household is IDR 474,000 (established in DKI Regulation No. 10/2004).[14] The connection charge poses a substantial barrier for many households to connect to the network. For a family at the poverty line for Jakarta, the charge would represent over 50 percent of its monthly income. Furthermore, the charge is equivalent to 34 percent of the average income reported by households in the survey conducted for this project. To provide a direct benefit to the target households, the connection charge will be partially subsidised under the GPOBA program. However, because of concerns that households could become zero consumption households (that is, they would request a connection but then not use the water from the pipe network), it was agreed that households should have to pay part of the connection cost.

The proposed connection charge in the communities subject to the GPOBA Program is IDR 120,000. This figure is based on the survey results which showed that the majority of respondents (74 percent) said they would be willing to pay IDR 100,000 or less for the connection. PALYJA requested that this be set at IDR 120,000 so that the charge could be readily divided into monthly installments. JWSRB agreed with this approach.

Tariff

[12] These areas are also referred to in this Report as ‘slum’ communities.

[13] There are five categories in the current tariff schedule, two of which have sub-categories. Group I (Social Group) includes public hydrants and social institutions (mosques, hospitals, orphanages), Group II (Social Group – Very Modest Housing), Group IIIA (Low-income Residential + Apartments), Group IIIB (Middle-income Residential + Small commercial), Group IVA (Upper-income Residential + Commercial), and Groups IVB and V (Non-residential – Large Commercial and Industrial).

[14] The standard connection requires the installation of up 5 meters of connection pipe. If more is required, the customer is required to pay more.

In Jakarta, the tariff structure has five Groups (two of which have two sub-groups) and rising consumption blocks. The majority of customers receiving a Type I connection will fall into Group II (very modest housing). It is possible that some residences in the selected communities may fall into Group IIIA, 'modest housing'. Customers will pay the regular tariff according to the volume of water used. Table B.2 shows the current tariff schedule in Jakarta, including the average tariff across consumption blocks and the current level of cross-subsidization between customer groups.

Based on the OBA survey results (see Annex 11), the average reported level of income for the communities is IDR 1.4 million per month (US$144). Based on the average monthly consumption for Group II of 26.2 m3,[15] the expenditure on water would represent approximately 2 percent of the household income. In the community with the lowest reported household income (Rorotan), expenditure would represent 4.4 percent of household income. This community also demonstrated the highest level of willingness to connect (85 percent).

Table B.2: Current Tariffs (as of January 1, 2006) IDR per cubic meter

	0-10 m3	11-20 m3	> 20 m3	Avg. Tariff	Subsidy
Group I	950	950	950	950	84%
Group II	950	950	1,425	1,214	80%
Group IIIA	3,260	4,280	4,990	4,125	31%
Group IIIB	4,465	5,475	6,775	5,722	5%
Group IVA	6,200	7,400	8,850	8,198	-37%
Group IVB	11,325	11,325	11,325	11,325	-89%
Group V	13,200	13,200	13,200	13,200	-120%

Source: Jakarta Water Supply Regulatory Body and Castalia calculations

B.2.1.2 Type II Connections

The details of this type of connection are still being developed.

Connection Charge

As with the Type I connection, it is proposed that households make a contribution towards the cost of connection because this confirms the interest of the household in the service, and sends a signal of value to consumers. An appreciation of the value of the connection will ensure that consumers will effectively use the services through this connection.

As this is a pilot, the household make a modest contribution for the connection, in the order of IDR 12,000. The charge should be small enough to avoid being a barrier for customers to connect, but large enough to represent a carefully considered investment for customers. Through discussions with PALYJA and Forkami (Forkami is the Forum for Drinking Water Quality NGO) it was agreed that an amount in the order of IDR 12,000 would be affordable and socially/ politically acceptable. The JWSRB endorsed this proposed connection charge.

[15] Consumption data from Jakarta Water Supply Regulatory Body (January-April 2006).

Tariff

These consumers will be charged the same tariff as the public hydrant (Group I) – this is the lowest tariff in the current tariff structure. It is reasonable to charge these customers the lowest tariff, because they are generally some of the poorest residents in Jakarta. A higher tariff is likely to represent more than these customers are able or willing to pay for water services. The tariff for Group I is IDR 950 per cubic meter. This is the same as the first two blocks of the Group II tariff, but there is no rising block as in Group II. The application of this tariff will require approval from DKI Jakarta

The commercial arrangements for Type II connections are the same as for Type I connections – each household will have an individual meter and will receive an individual bill every month.

B.2.2 Community Selection

An important feature of the project is that it is targeted at small pockets of households/ communities that are located within larger areas that are already served. Jakarta is affected by raw water shortages, which limit the concessionaire's ability to extend the network into some currently un-served areas, particularly in the northern part of the city. The project, therefore, is not focused on green-field areas, but on areas that are in the proximity of a secondary main. The selection of communities for the project started with the concessionaires developing a 'long-list' of potential communities, which was then screened for compatibility with the policy criteria specified by DKI Jakarta to establish a 'short-list' of potential communities. A social assessment was then done for the communities on the short-list.

Community selection criteria were:

- Service levels – sufficient water for new community without negative impact on existing customers
- Tertiary network – service provision should only require installation of tertiary network (not extensions to secondary network)
- Areas with limited or poor quality groundwater
- Poverty level – poor communities targeted
- Spatial planning – government policy criterion – exclude communities illegally located in designated for industrial/commercial development and green-space areas, where density exceeds permissible levels and along rivers, railroads and under toll-roads.

At the end of the process only 14 communities were approved for the short-list (see Annex 9) – significantly fewer than had been expected. The major stumbling block was DKI Jakarta's spatial planning policy criteria which had the effect of excluding all of the proposed slum communities. Because the GPOBA program is specifically targeted at poor communities, the Jakarta government was persuaded to allow one pilot program to be run for a Type II connection in one slum community. If this pilot is successful, DKI Jakarta will consider replicating this approach in other slum communities.

Because so few communities passed the screening process a list of potential communities for a second phase was drawn up comprising only slum communities.

B.2.3. Subsidy Mechanism

Type I and Type II connections

The subsidy for Type I amd Type II connections will be paid on a 'per installed new connection' basis. This means that an assumption needs to be made at the outset on the number of connections that will be installed. This number can be defined as the number of households that, based on the survey, indicated their willingness to connect if and when services were offered to them.

Experience in other communities where surveys have been conducted before installing a connection shows that the real 'up-take' is generally less than that indicated by the survey. TPJ's experience with recent communities indicated that the actual up-take ratio was 15 percent, even though the surveys indicated a willingness to connect of 63.3 percent. One of the main reasons for a considerably lower up-take ratio is the high connection charge (IDR 500,000), and the absence of socialisation work before the network is laid out. In the GPOBA communities the connection charge will be reduced to IDR 120,000 for Type I connections and IDR 12,000 for Type II connections; and extensive socialisation work is planned.

The concessionaires acknowledged that these features of the GPOBA Program might reduce up-take risk, but were concerned that they will still have to bear a considerable amount of risk. For example, if only half of the consumers that indicated their willingness to connect during the surveys decide to actually connect, the concessionaire will receive a subsidy equal to only half of their costs. This issue is of great concern to the concessionaires – to the extent that they will be prepared to abandon the GPOBA program if this is not resolved.

A mechanism was agreed in principle, between the GPOBA Task Team Leader and the concessionaires, to share the up-take risk. The main elements of this mechanism are:

The willingness to connect resulting from the survey will be reduced by ten percentage points – that is, if the willingness to connect from the surveys was 56 percent, the adjusted willingness to connection shall be 46 percent. This adjustment reflects the wide margin of error that is typical of these type of surveys

The total cost of the system will be divided in two components: the cost of the network (Total Cost of Network – TCN) and the Cost of an Individual Service Connection (CISC). The network will be sized to serve all the potential communities within the selected area, regardless of the willingness to connect

The concessionaire will submit two invoices – one for delivering the first output, and a second for delivering the second output. The first invoice will be for 75 percent of the 'total subsidy amount', and the second for the balance

The Total Payment for Type I Connection (TPI) will be computed as:

TPI = NCS + [(CSC - 120,000) x CI]

where:

NCS =	Network Cost Sharing
CI =	Number of Connections Installed
CSC =	Cost of Service Connection, that is IDR 812,450
WTCC =	Number of Willing to Connect Connections, adjusted by 10% up-take risk
UWTCC=	Number of Willing to Connect Connections, adjusted by 10% up-take risk and by 80% up-take risk sharing arrangement

And:

If CI > WTCC then NCS = TNC

If UWTCC < CI < WTCC	then NCS = (TNC / WTCC) x CI
If CI < UWTCC	then NCS = (TNC / WTCC) x [CI + (UWTCC – CI) / 2]

This formula means that:

The total subsidy paid to the concessionaires is the sum of various costs of the network – this amount is computed based on an up-take risk sharing arrangement; plus an amount equal to the cost of the service connections made, minus the connection charge received from these connections

The up-take risk sharing arrangement is as follows:

i. If the number of connections installed is greater than the number of connections deemed as willing to connect (after the 10 percent up-take adjustment), the concessionaires get paid the full cost of the network

ii. If the number of connections installed is between 80 and 100 percent of the number of connections deemed as willing to connect (after the 10 percent up-take adjustment), the concessionaires will be paid the cost of the network that corresponds that up-take rate. This means that the concessionaires take full up-take risk on this level of up-take

iii. If the number of connections installed is less than 80 percent of the number of connections deemed as willing to connect (after the 10 percent up-take adjustment), GPOBA and the concessionaires will share the up-take risk. This sharing arrangement means that the concessionaires will be paid cost of the network that corresponds the actual up-take rate, plus half of the cost the corresponds to difference between 80 percent of the number of connections deemed as willing to connect, and the actual number of connections.

This same mechanism will be used for Type II connections.

The tables in Annex 10 illustrate the risk mechanism works, using the actual willingness to connect and cost data.

In the case of PALYJA, for example, the surveys indicated that 56.5 percent of the potential customers, in the areas where Type I connections would be offered, were wiling to connect. If there was no up-take risk sharing mechanism, and only 20 percent of the households connected, the concessionaires will incur in a deficit of around IDR 6.3 billion, against a total investment of IDR 12.6 billion. With the proposed up-take risk sharing mechanism, this deficit will decrease to IDR 4.3 billion. It is important that the concessionaires have some exposure to give them enough incentive to connect as many customers as they can.

In the case of PALYJA, if the up-take was 60 percent, PALYJA will receive a total subsidy of IDR 15 billion, of which IDR 11 billion will be to cover the cost of the network, and IDR 4 billion to cover the cost of the service connections installed. Of the IDR 15 billion, IDR 11.25 billion will be paid when the first output is delivered – that is, when the service connections are installed and verified by the auditor; and IDR 3.75bn will be paid when the second output is delivered – that is, after three consecutive months of the average daily volume of water billed is equal to or greater than 360 liters per capita.

This same logic applies to the TPJ areas. For example, if the up-take in Rorotan and Kebon Pala was 60 percent, TPJ will receive a total subsidy of IDR 5.7 billion, of which IDR 4.8 billion will be to cover the cost of the network, and IDR 0.9 billion to cover the cost of the service

connections installed. Of the IDR 5.7 billion, IDR 4.3 billion will be paid when the first output is delivered; and IDR 1.4 billion, when the second output is delivered.

Final Subsidy Amounts

The actual amounts of subsidy that each concessionaire will be paid depends on the number of connections actually installed, as well as on the costs that are ultimately agreed between GPOBA and each concessionaire. Based on reasonable assumptions of these values, Table B.2.3. provides the best estimate of the subsidy per connection and total subsidy needed for each concessionaire. The subsidy per connection has been computed assuming that in the PALYJA and TPJ communities the number of households that actually connect is exactly equal to those that were deemed willing to connect based on the survey, and after the 10 percentage point adjustment.

Table B.2.3: Estimates of Subsidy per Connection and Total Subsidy Needed

Amounts in IDR	PALYJA		TPJ		
	Subsidy per Connection	Maximum Total Subsidy Funds Needed	Subsidy per Connection	Maximum Total Subsidy Funds Needed	Total
PHASE I					
Type I Connections	3,206,732	17,554,803,500	5,201,487	6,673,277,106	
Type II Connections	2,330,320	989,225,000			
Subtotal		18,544,028,500		6,673,277,106	25,217,305,606
PHASE II					
Type II Connections	2,330,320	3,961,544,221	2,330,320	2,155,546,120	6,117,090,341
Total		22,505,572,721		8,828,823,226	31,334,395,947

Amounts in USD	PALYJA		TPJ		
	Subsidy per Connection	Maximum Total Subsidy Funds Needed	Subsidy per Connection	Maximum Total Subsidy Funds Needed	Total
PHASE I					
Type I Connections	352	1,929,099	572	733,327	
Type II Connections	256	108,706	-	-	
Subtotal		2,037,805	-	733,327	2,771,132
PHASE II					
Type II Connections	256	435,355	256	236,873	672,208
Total		2,473,140		970,200	3,443,340

Exchange rate – IDR 9,100/USD

B.3. Economic and financial analysis

The methodology for ERR calculation is still being developed within GPOBA and will be the subject of review at the PoE Meetings. The main benefit that can be quantified is the expenditure

saving resulting from the lower price that households pay for water; other economic benefits will include time savings and health benefits that accrue as a result of being connected to a piped network[16].

B.4. Lessons learned and reflected in the project design.

There were two particular issues that had not been anticipated in the early stages of scheme design:

(i) Informal slum communities – the poorest communities have developed informally, and mainly illegally, in areas designated by the Jakarta administration for commercial development. To date, DKI Jakarta has employed a somewhat draconian approach to dealing with such communities, periodically bulldozing them with no effective resettlement plans. The decision to support the OBA project has forced DKI Jakarta to address the issue of access to affordable drinking water in these communities, and DKI has agreed to a pilot sub-project – which could be scaled up in Phase 2. Without the OBA scheme, DKI Jakarta would not have given the concessionaires permission to supply these communities.

(ii) Connection risk – the relatively low willingness-to-connect in Jakarta was somewhat surprising, and anecdotal evidence from the concessionaires indicated that this could be potentially as low as 15%. There are many contributory factors to such historically low uptake rates (eg poor scheme socialization, rampant illegal connections, property ownership, failure to implement borehole closure regulations, poor service perceptions). The project design has taken on board some of these issues through more active community engagement, aligning connection cost subsidies to WTP, and through the connection risk sharing methodology. The use of the Steering Committee has also helped garner political/stakeholder support and consensus for the scheme and raised the political profile of Jakarta's slum communities.

[16]In many cases, households pay 2.5-3 times more (and significantly more in some areas) for water from informal sources than they would if they were connected to the piped network. In addition, they often rely on water sources that are contaminated, Castalia Report to GPOBA, October 2006.

C. IMPLEMENTATION

C.1. Milestones for project implementation.

Annex 12 provides the Gantt chart with the proposed schedule. The scheme is scheduled to take close to 2 years for implementation of both phases. The first phase should be completed in about 9 months for both connection types. However, a short gap is recommended before starting Phase 2. This would allow time for the communities to get used to the new system and for the Phase 1/Type II program to be evaluated before Phase 2 starts. This will allow for community feedback on what could be improved in the next round of communities.

The general schedule is as follows:

YEAR 1 (9 months)

Phase 1
Type I connections:
- Design - 3 months
- Procurement - 2 month
- Installation - 4 months

Type 2 connections:
- Set up of community organization/community consultation/design - 4 months
- Procurement - 2 month
- Installation - 3 months

YEAR 2 (9 months)

Phase 2 - Phase 2 should start a few months after the completion of Phase 1 to give people time to get used to the system and to check that the community is satisfied with the service

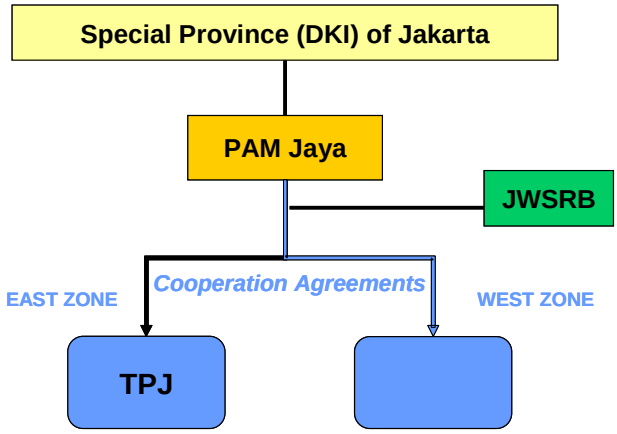
- Evaluate 'success' of Type 2 program from Phase 1 and refine program - 1 month
- Confirmation of Phase 2 communities - 1 month
- Set up of community organization/community consultation/design - 3 months
- Procurement - 2 month
- Installation - 3 months (longer than in Phase 1 because there are more communities)

C.2. Institutional and implementation arrangements.

Figure C.2.1 illustrates the institutional arrangements for water services in Jakarta. The Steering Committee for the project comprises members from all these organizations. The Regulator (JWSRB) reports to the Governor of Jakarta's office and regulates the two Cooperation Agreements. Pam Jaya, the public water utility for the DKI region, is the counterparty to the Cooperation Agreements and acts as contract administrator.

The Regulator will have a role in signing off invoices submitted by the concessionaires for reimbursement by GPOBA.

Figure C.2.1: Institutional Arrangements for Water Supply Services in Jakarta



C.3. Monitoring and evaluation of outcomes/results

The outputs of the project upon which GPOBA subsidies will be disbursed include:

- Verified working connections meeting specifications set out in the Term Sheet.
- Sustainable service delivery – average daily volume of water delivered, for a continuous period of three months, above the threshold of 360 litres per connection per day.

For Type I and Type II connections the first output will be verified by an independent auditor and the head of the household; the auditor will verify the second output .The TOR and selection of the audit firm will be subject to "no objection" approval by GPOBA.

C.4. Sustainability

Once the households have been connected to the concessionaires' network they will become customers of TPJ or PALYJA – both of whom are subject to the terms and conditions of the Cooperation Agreements and associated technical and service targets (pressure, water quality etc).

.

C.5. Critical risks and possible controversial aspects (and measures to mitigate them).

The key risk is poor uptake of the subsidised connection offer. The average willingness to connect (WTC) in the household surveys was 62%, with a range between 44% and 83% in the different communities. However, PALYJA themselves, based on operational experience, are more pessimistic and have WTC estimates in the range 15% to 63% (average 31%).This issue is addressed through the subsidy formula which contains an up-take risk sharing arrangement and the setting of the connection charge subsidy at such a level as to significantly reduce this risk..

Change in control and reputational risk. It is understood that Thames Water is in the process of divesting its holding in TPJ. The credentials of any new owner will need to be assessed.

TECHNICAL ANNEXES

Annex 1. Project costs schedule of OBA payments to be required from GPOBA (Window 3).

Component	Local US$ million	Foreign US$ million	Total US$ million
Component 1: Installation of water service connections for selected households.		$3,443,340	$3,443,340
Component 2: Bank/GPOBA Supervision		$50,000	$50,000
Component 3: Consulting Services for audits and output verification		$100,000	$100,000

Annex 2. Financial Management (OP/BP 10.02).

Discussions with the concessionaires, and a review of their corporate policies and procedures show that:

- Account of purchases and payments are comprehensive in setting out procedures, standard forms.
- The accounting systems generate monthly and quarterly financial statements and progress by operations, activities and categories.
- Both PALYJA and TPJ have inventory monitoring systems, which are fully integrated within the general financial system.
- Both PALYJA and TPJ follow operational manuals with policies and procedures to control activities.
- Both PALYJA and TPJ have an appointed the external auditor. PALYJA's is Ernst & Young, and TPJ's is PWC.

Financial Management

(i) Disbursements. The Grant will be disbursed upon certification of outputs by an auditing firm in the amounts specified and consultations with the regulator, directly to the concessionaires from the GPOBA trust fund account in the World Bank. The Recipients will make semi-annual withdrawal applications to the World Bank, based on the number of new connections made and the corresponding requests for withdrawal applications.

(ii) Independent auditor. For the annual financial audits of the Project, and the semi-annual technical audits of completed new water connections (including the verification of corresponding Eligibility Certificates, Installation of Connection Certificates, and billing records of the households benefiting from the said new connections, the services of a financial auditor and a monitoring and evaluation auditor will be procured. The level of the fee, which will be paid to the respective auditors, will be set through direct negotiations with the existing auditors responsible for auditing the Recipients'. The fee will be based on the workload and the level of services to be provided.

(iii) Financial Monitoring Reports. The Recipients will report on the financial progress of the project using the quarterly FMR. The FMR and any supporting documentation must be provided to the Escrow Account Agent, with a copy to the World Bank. The FMR format will be customized in a format to be agreed between the Recipients and the Bank, adapted to the specific needs of the project. The FMR will be submitted on a quarterly basis and forwarded directly by the Recipients to the Bank.

(iv) Project Monitoring Reports. The Recipients will be responsible for preparing quarterly budgets and the annual consolidated financial statements to be submitted to the Bank. All documentation relating to financial transactions, procurement, contracts and invoices will be retained and made available to supervision missions and auditors.

(v) Audit Reports. An annual audit of the Grant will be conducted by auditors or audit firms contracted by it for this purpose in accordance with established practice in similar arrangements under Bank financed projects.

Annex 3. Disbursement (OP/BP 12.00).

(i) Allocation of Proceeds. The Project will be implemented over a period of two years. Disbursements will be against the following expenditure categories: Output-based aid contracts and Consultants' Services.

(ii) Implementation Agreement and Blanket Application for Withdrawal (BAW). The details of the implementation arrangements are described in the Project Implementation Annex. The Recipients' accounting and financial management systems used for the purpose of the implementation of the Project are operational and satisfactory to produce the agreed upon Financial Monitoring Reports (FMRs).

(ii) Cash-flow projections. As part of each replenishment request, the Recipients will submit cash-flow projection estimates of disbursements for project expenditures for the ensuing six months.

(iii) Quarterly replenishment requests. Replenishment of the project account will be on a quarterly basis. The Recipients will submit quarterly replenishment requests for each calendar year to the Bank, reflecting expenditures paid during the previous three months and an estimate of expenditures for the ensuing six months. These quarterly requests will be in the agreed FMR format, which will include the following for disbursement purposes: (i) aggregate disbursements by each Recipient; (ii) breakdown of aggregate disbursements by disbursement category; (iii) percentage project account reconciliation statement; and (iii) forecast of expenditures for the next two FMR reporting periods.

(iv) Deposit Account. Advances from the Grant Account will be deposited into the Recipients' dollar denominated bank account. The Recipients will maintain separate ledger accounts for the grant funding of the project. Advances to the Recipients from the Grants' Account will be managed in accordance with Bank Guidelines as set forth in the Operational Manual and the Disbursement Letters to be issued by the Bank.

Annex 4. Procurement (OM, July 15, 2002).

Discussions with the applicants, and a review of their corporate policies and procedures show that:

- The bulk of procurement of goods and services for both PALYJA and TPJ is centralized in the purchasing unit of Jakarta.
- Both PALYJA and TPJ procure small works contracts and goods through its financial administration unit.
- The organization, functions and accountabilities are clearly defined in operational manuals as are individual job profiles for each of the positions.
- All potential bidders are invited to bid on requirements. When queried by the financial unit, both PALYJA and TPJ's registry generates a list of potential bidders by matching the tender requirement to information provided by the registrant regarding the type of good, service or works offered.
- Review of a sample of bid documents provided by PALYJA and TPJ contains all of the information required by suppliers in preparing a bid. The documents are well structured with distinct sections dealing with instructions to bidders, technical specifications or terms of reference, contract conditions, and standard forms relating to certifications and guarantees.
- The systems have the capability to generate a procurement procedural guide for incoming requisitions, based upon information relating to the estimated value and object of procurement.
- The system also maintains a contract data base, including bidding documents, bid opening information, bid evaluation reports, signed contracts, contract follow-up, and track performance against indicators.
- Both PALYJA and TPJ maintain detailed procurement records (record keeping, auditing, reporting, and monitoring), reflecting the company's supply of goods, civil works construction/rehabilitation, and consultant services.
- Both PALYJA and TPJ have sub-systems relating to catalogues of goods and services based upon a standard classification, transaction execution and control, supplier registry system, price history, contract management, inventory, delivery and acceptance, supplier performance and sanctions, warranty, payment, and contract amendments.

Procurement Arrangements

A. General

Procurement for the proposed project would be carried out in accordance with the World Bank's "Guidelines: Procurement Under IBRD Grants and IDA Credits" dated May 2004; and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" dated May 2004, and the provisions stipulated in the Legal Agreement. The various items under different expenditure categories are described in general below. For the contracts to be financed by the Grant, the different procurement methods or consultant selection methods, estimated costs, prior review requirements, and time frame will be agreed between the Recipient and the Bank in the Grant Agreement.

B. Procurement Arrangements

(i) Works and Goods: The project will procure small civil works and related goods. Works packages will be procured by the Recipients through shopping, direct contracting, force account as well as community participation procurement. Goods will be procured by the Recipients through shopping or using existing framework agreements. The procurement will be done as described in the Operational Manual, which will include a detailed scope of work, specifications and relevant drawings as well as standard bidding documents and contracts satisfactory to the Bank. These contracts will not be subject to prior review by the Bank

(ii) Selection of Consultants: Consulting services procured under this project include: technical design studies for rehabilitation and maintenance works, supervision of works, baseline studies/surveys, affordability assessments, safeguard-related studies, financial audits. The selection procurement will be done using the Recipient's standard bidding documents satisfactory to the Bank.

C. Assessment of the agency's capacity to implement procurement

Luis Tineo, Procurement Specialist (GPOBA) carried out an assessment of the capacity of PALYJA and TPJ. The Procurement Capacity Assessment report was produced from the mission to Jakarta (**August 27-September 7, 2006**) and is available in the Project's files.

The assessment reviewed the organizational structure for implementing the Project and the capacity of PALYJA and TPJ to execute procurement. The assessment found no issues and risks concerning the procurement component for implementation of the Project as far as:

- Inconsistencies between the and World Bank policies;
- Weaknesses in preparation of technical specifications, terms of reference, and contract
- management; and
- Staff skills for procurement and contract management of the water supply contractors under OBA schemes.

The Bank is satisfied with PALYJA and TPJ systems, and therefore, both Recipients, as part of the implementation functions, will undertake all the procurement following their corresponding procurement procedures and associated standard documents and model contracts for the selection and award of contractors. The specific arrangements will be further detailed in the Project's Operational Manual. No prior review of contracts both for output-based aid and consultants are needed.

Since no corrective measures are needed, the overall project risk for procurement is low.

D. Procurement Plan

The Recipients, at appraisal, developed a disbursement plan for project implementation which provides the basis for the procurement methods and contracts. This plan has been agreed between the Recipient and the Project Team and is available at the Recipients' office in Jakarta, Indonesia. The disbursement plan will be updated in agreement with the Project Team as required to reflect the actual project implementation needs.

E. Frequency of Procurement Supervision

The capacity assessment of the Recipients recommends one supervision mission, at the end of the project, to carry out post review of procurement actions.

Annex 5. Environment (OP/BP 4.01).

For disclosure purposes, Bank policies require an assessment of the company's environmental policies and plans address the broad social, and health and safety issues and potential project impacts.

John Morton (Environmental Specialist) is assessing compliance based on both companies' standard operating procedures.

Issues Bank policies require to verify in particular include that:

(i) No use of materials (water supply or waste pipes) containing asbestos.

(ii) Adequate site safety precautionary measures are taken around excavations, trenches, etc., to enhance public safety during and outside working hours.

(iii) Use sediment fencing to control erosion and sediment transport.

(iv) Backfill material comes from approved burrow sites and that these sites are rehabilitated/restored.

(v) Lubricant and fuel supplies for contractors, site equipment and vehicles are stored and dispensed in a controlled manner to avoid leaks and soil contamination.

(vi) Minimise standing water as appropriate through appropriate drainage.

(vii) Solid waste material is collected form site and disposed of appropriately.

This assessment includes procedures on resettlement and land acquisition, organisational structure and responsibilities for monitoring, environmental management plan, and procedures for contractors on environmental issues.

Annex 6. Results framework and monitoring mechanisms.

In addition to the monitoring and verification of actual outputs for certification and subsidy disbursement undertaken by the independent auditor and the Jakarta Water Supply Regulatory Body working with TPJ and Palyja, the following information will be collected by the applicants and copied to GPOBA for monitoring and tracking purposes.

Output Based Aid in Water – Jakarta Water Supply **Verifiable Project Indicators**					
Project Characteristics					
Project output(s)					
Poverty targeting (surveys, community decisions, geographic)					
OBA design period	months				
Planned implementation period for outputs	months				
Financing					
		GPOBA	Donors	Govt.	Local
	USD				
Investment grants	ths				
Private sector investment finance, if any (own funds/loans)					
	USD				
Private sector finance mobilized for investments	ths				
Guarantors (if any)					
	USD				
Guarantee amount	ths				
Tender Procedures					
Public tender of contracts (Y/N)?					
Type of contract(s) tendered (if applicable)					
Number of pre-qualified firms (if short listing)	no.				
OBA bidding variable					
Use of incumbent providers (Y/N)?					
Contracting period for operations (if applicable)	years				
Project Outcome					
Investment cost per connection established	USD				
Subsidy per connection	USD				
Grant assistance per household connected	USD				
Outreach of OBA grant(s) to poor population	pct.				
GPOBA payments proceeding according to plan (Y/N)?					
Payments delay, if any	months				
Local co-funding supplied as planned (Y/N)?					
Tariff adjustment clauses respected					
OBA service provider before project (public/private)					

OBA service provider after project (public/private)				
User assessment of project (no/poor/fair/good/very good)				
Degree of local capacity building (none, low, medium, high)				
Means of dissemination of lessons learned, if any				
		2007	2008	2009
No. of beneficiary households	no.			
Connection rate	pct.			
No. of new connections established	no.			
Water sales per year	m3			
Service availability (daily average)	h/day			
Unscheduled water supply failures lasting more than 30 min.	no./yr.			
Water tariff	IDR/m3			
Affordability ratio [1)]	pct.			
Replicability and other				
Pilot scheme or replication?				
Scheme introduced to other potential financiers (Y/N)?				
Scheme considered for replication/replicated (Y/N)?				
Funding of replications if any (government, donors)				
Increase in employment?				
Improving enabling environment?				
Improving government capacity (e.g. for replication and scale-up, working with local private operators, etc)?				
1) Average water bill per household per month divided by average monthly household expenditure				

Annex 7. Project preparation and supervision

A. Institutions responsible for project preparation:

1) GPOBA c/o World Bank

2) Thames Pam Jaya
Primary contacts: Julian Earle (President Director)
Phil Cox (Financial Controler)

3) Pam Lyonnaise Jaya
Primary contacts: Thierry Krieg (President Director)
Philippe Folliason (Contract Manager)

4) Jakarta Water Supply Regulatory Body
Primary contact: Achmad Lanti (Chairman)

B. GPOBA/World Bank Team:

Core Team:

Name	Title	Unit
Iain Menzies	Task Team Leader Sr. Infrastructure Specialist	GPOBA/IEF
Luis Tineo	Sr. Procurement Specialist	GPOBA/IEF
Dirk Sommer	Sr. Infrastructure Specialist	GPOBA/IEF
John Morton	Environment Specialist	EAP
Imad Saleh	Sr. Procurement Specialist	EAPPC (Country Office)
Rajiv Sondhi	Sr. FM Specialist	EAPFM (Country Office)
Novira Asra	Financial Management Specialist	EAPFM (Country Office)
Melinda Good	Sr. Counsel	LEGEAP
Castalia	Consultants	External

Advisory team:

Name	Title	Role	Unit
Patricia Veevers-Carter	Program Manager	Peer Review/ Advisory	GPOBA/IEF
Irving Kucynski	Panel of Experts	Advisory	GPOBA
Alejandro Jadresic	Panel of Experts	Advisory	GPOBA
Jan Drozdz	Sr. Water Specialist	Advisory	EAP (Country Office)
Risyana Sukarma	Water Specialist	Advisory	EAP (Country Office)

C. Project Preparation Costs

Funds awarded for scheme design technical assistance were USD 273,000 (including USD 50,000 for WB supervision).

Annex 8. Term Sheets for Palyja

GPOBA Subsidy to Support Improved Water Services in Jakarta

Operating Procedures Term Sheet - PALYJA

<table>
<tr><td>Parties to Agreement</td><td colspan="10">GPOBA and PALYJA</td></tr>
<tr><td rowspan="8">Selected Community</td><td>Community Identifier</td><td>PALYJA-1</td><td>PALYJA-2</td><td>PALYJA-3</td><td>PALYJA-4</td><td>PALYJA-5</td><td>PALYJA-6</td><td>PALYJA – 7</td><td>PALYJA-8</td><td>PALYJA-9</td></tr>
<tr><td>Area (Kecamatan)</td><td>Penjaringan</td><td>Kalideres</td><td>Kalideres</td><td>Kalideres</td><td>Cengkareng</td><td>Cengkareng</td><td>Cengkareng</td><td>Kebon Jeruk</td><td>Penjaringan</td></tr>
<tr><td>Sub-Area (Kelurahan)</td><td>Pejagalan</td><td>Kalideres</td><td>Pegadungan</td><td>Kalideres</td><td>Tegal Alur</td><td>Cengkareng Barat</td><td>Cengkareng Barat</td><td>Kepa Duri</td><td>Muaru Baru</td></tr>
<tr><td>Name of Community (RW)</td><td>RW 15–Gang Kantong</td><td>RW 10–Gombol Paya; Kampung Rawalele</td><td>RW 06–Kampung Buaran</td><td>RW 11-Jl. Utan Jati</td><td>RW11–Jl. Permata-Jl. Pelopor; Jl. Mencang Raya</td><td>RW 01–Jl. Benda 3; RW 01–Jl. Daan Mogot Gang Madrasah;</td><td>RW 7–Jl. Rawa Bengkel</td><td>RW 08–Jl. Nusa Indah Gang A & Gang E</td><td>RW 06–Warung Gantung</td></tr>
<tr><td>Approximate Number of Households</td><td>1109</td><td>1155</td><td>1260</td><td>561</td><td>1500</td><td>1055</td><td>841</td><td>400</td><td>500</td></tr>
<tr><td>Tariff Category</td><td>K2</td><td>K2</td><td>K2</td><td>K2</td><td>K2</td><td>K2</td><td>K2</td><td>K2</td><td>K1</td></tr>
<tr><td>Location</td><td colspan="9">Map to provided by PALYJA</td></tr>
<tr><td>Type of Connection</td><td colspan="8">Type I</td><td>Type II</td></tr>
<tr><td>Connection Charge</td><td colspan="9">Type I Connection ⇗ IDR. 120,000 per household connection
Type II Connection ⇗ IDR. 12,000 per household connection</td></tr>
<tr><td>Additional communities</td><td colspan="10">GPOBA shall allocate USD 435,335 to provide subsidies to additional communities that had not yet been selected when the Grant Agreement was executed. The procedures and criteria that shall be followed to select eligible communities are defined in 0. The provisions established in this term sheet shall also apply to the additional communities that are selected using the procedure and criteria defined in 0</td></tr>
<tr><td rowspan="2">Output definition and proof of output</td><td colspan="10">Type I Connection means a new Individual Household Connection within Selected Community
Individual Household Connection means a household connection that meets Individual Household Connection Specifications, as defined in 0 to this Term Sheet

First Output for Type I Connection: Connection Confirmation Form (per 0 to this Term Sheet) signed by head of household and Auditor, declaring that household connection meets Individual Household Connection Specifications
Second Output for Type I Connection: Three (3) consecutive monthly audited performance reports in which Service Delivery Standard, as defined in 0, is met.</td></tr>
<tr><td colspan="10">Type II Connection means new Individual Household Connection within Selected Community
Active Community Connection means a household connection that meets Individual Household Connection Specifications, as defined in 0 to this</td></tr>
</table>

: Criteria for Selecting Communities

Future communities shall be selected using the same criteria. The following procedure is required:

The concessionaire prepares a list of proposed communities that meet the technical criteria

DKI reviews these communities against the policy criteria, in particular the most recent land use plans and gives approval for the communities on the list

The concessionaires commission a survey to determine the Willingness-to-Connect. The cost of running this survey shall be included in the total cost of the system

The Jakarta Water Supply Regulatory Body (JWSRB) must give a 'no objection' to the organization engaged by the concessionaire to conduct the survey and has thirty days to review the results

Communities that reach at least 50% Willingness-to-Connect may be considered for the program, subject to approval by the Steering Committee.

The level of Willingness-to-Connect required may be reconsidered after analysis of the actual connection uptake from the first Group.

: Individual Household Connection Specifications

An Individual Household Connection shall be constructed in accordance with best water utility practice, and shall follow the specifications listed below:

Running water inside the household

A clamp saddle and ferrule with horizontal outlet

An HDPE PN 12.5 OD25 PE 100 underground connection pipe rising up from the ferrule

The HDPE pipe shall be sleeved with GI pipe wherever it is exposed

A ball or stop valve

A water meter

A check valve or ball valve

A water company seal to indicate unauthorized removal of the water meter

An enclosure or chamber for the water meter, where possible sited inside the customer's property within 1m of the boundary

: Service Delivery Standard

Individual Household Connections

Service Delivery Standard shall be deemed to have been met for one billing month when the Average Daily Quantity of Water Supplied, in such billing month, to all Individual Household Connections in all Selected Communities is not less than 360 liters per Individual Household Connection per day.

The Average Daily Quantity of Water Supplied for a billing month shall be equal to the sum of the quantity of water billed, for one billing month, to all Individual Household Connections in all Selected Communities, divided by the total number of Individual Household Connections in all Selected Communities, divided by the number of days in such billing month.

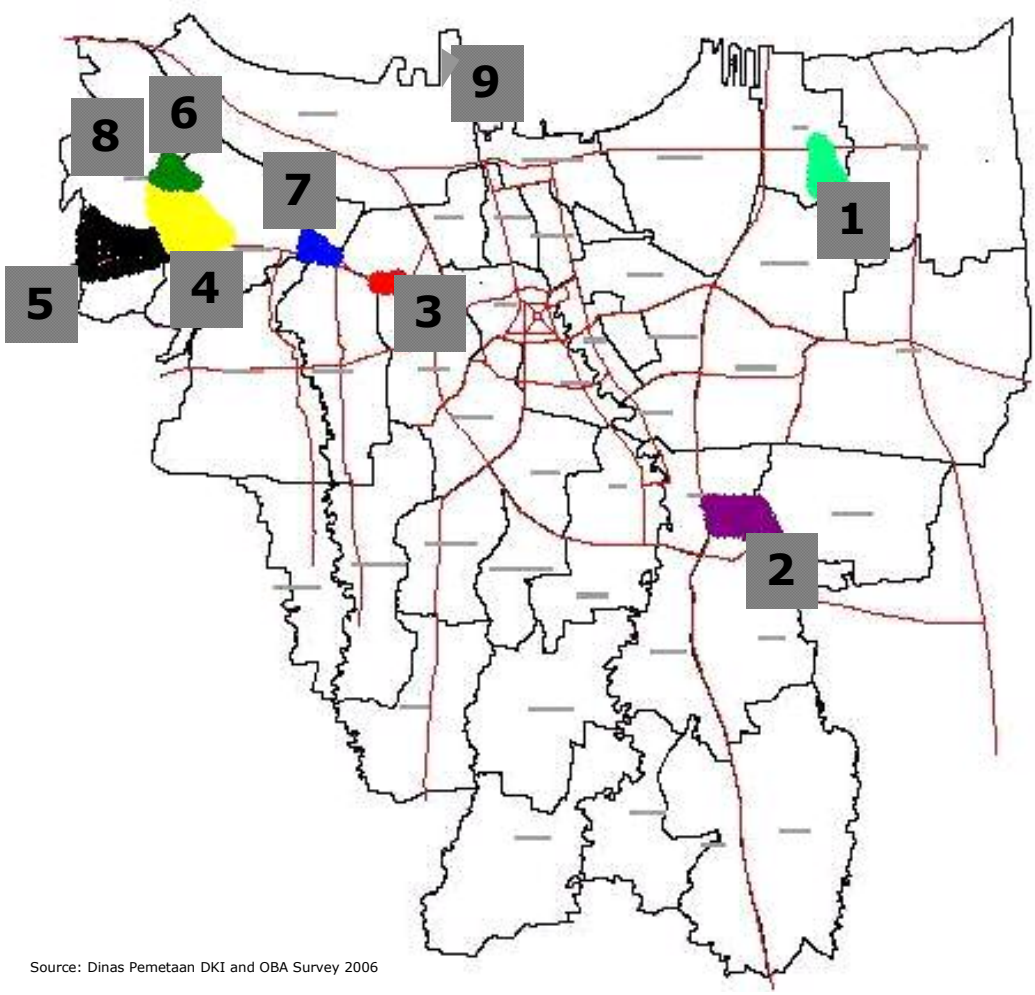
Service Delivery Standard for Individual Household shall be deemed to have been met during a billing month in which PALYJA is affected by a Force Majeure event, or an event of major disruption in raw water supply as certified by PAM JAYA.

In the event that PALYJA is unable to meet Service Delivery Standard during a billing month due to a claimed insufficient consumption from PALYJA's customers in the Selected Community, PALYJA shall have the right to present to JWSRB a petition for a deemed compliance with Service Delivery Standard. Such petition shall include the evidence that PALYJA considers necessary for JWSRB to reach a decision. JWRSB shall have 10 business days after PALYJA submits its petition to reach a decision. If JWSRB fails to reach a decision within 10 days, the petition shall be deemed approved, and PALYJA shall be deemed to have complied with Service Delivery Standard.

: Example of Connection Confirmation Form

CONNECTION CONFIRMATION FORM			
FORM # (for administration purposes):			
ADDRESS OF HOUSEHOLD:			
PART A: Head of Household to Complete			
Please place a tick in the appropriate box next to each question:		**YES**	**NO**
1. PALYJA/TPJ has installed a new water connection at this house			
2. This connection supplies water regularly every since it was installed			
3. The water available from this connection is of a reasonable standard for drinking (does not have foul smell or taste, is not strongly discolored)			
NAME OF HOUSEHOLDER:			
IDENTIFICATION NUMBER:			
SIGNATURE OF HOUSEHOLDER:			
DATE:			
PHONE NUMBER (optional):			
PART B: Auditor to Complete			
Please place a tick in the appropriate box next to each question:		**YES**	**NO**
1. The connection installed at this household meets the specifications set out in the Grant Agreement			
2. The connection installed at this household supplies water			
Please enter the data recorded for this household below:			
Connection Type:			
NAME OF AUDITOR REPRESENTATIVE:			
SIGNATURE:			
DATE:			

Annex 9. Map showing the main project sites in Jakarta and community details.



Source: Dinas Pemetaan DKI and OBA Survey 2006

TPJ	**1**	Kel. Rorotan/Kec. Cilincing
	2	Kel. Kebon Pala/Kec. Makasar
Palyja	**3**	Kel. Kepa Duri/Kec. Kebon Jeruk
	4	Kel. Cengkareng Barat/Kec. Cengkareng
	5	Kel. Kalideres /Kec. Kalideres
	6	Kel. Tegal Alur/Kec. Kalideres
	7	Kel. Pejagalan/Kec. Penjaringan.
	8	Kel. Kalideres / Kec. Kalideres (Warung Gantung)
	9	Kel. Muara Baru / Kec. Penjaringan (Type-II)

First Phase Communities

Kecamatan (Area)	Kelurahan (Sub-area)	Community (RW)	Approximate Number of Households
PALYA- TYPE I			
Penjaringan	Pejagalan	RW 15–Gang Kantong	1,109
Kalideres	Kalideres	RW 10–Gombol Paya; Kampung Rawalele	1,155
Kalideres	Kalideres	RW 06–Kampung Buaran	1,260
Kalideres	Pegadungan	RW 11-Jl. Utan Jati	561
Cengkareng	Tegal Alur	RW11–Jl. Permata-Jl. Pelopor; Jl. Menceng Raya	1,500
Cengkareng	Cengkareng Barat	RW 01–Jl. Benda 3; RW 01–Jl. Daan Mogot Gang Madrasah;	1,055
Cengkareng	Cengkareng Barat	RW 7–Jl. Rawa Bengkel	841
Kebon Jeruk	Kepa Duri	RW 08–Jl. Nusa Indah Gang A & Gang E	400
Kalideres	Kalideres	RW 06–Warung Gantung	1,549
		TOTAL	**9,430**
TPJ-TYPE I			
Cilincing	Rorotan	RW 06-Rorotan	210
Cilincing	Rorotan	RW 07-Rorotan	368
Makasar	Kebon Pala	RW 03-Kebon Pala	690
Makasar	Kebon Pala	RW 04-Kebon Pala	642
Makasar	Kebon Pala	RW 09-Kebon Pala	258
		TOTAL	**2168**
PALYJA-TYPE II			
Penjaringan	Muaru Baru	RT 16	500

Process for Selecting the Communities for Second Phase

The concessionaires and the JWSRB have developed a list of potential communities for the second phase. These are considered 'slum' communities. DKI Jakarta has agreed to allow additional 'slum' communities to be provided water through the GPOBA scheme, pending the outcome of the pilot program in the first phase. This list is provided below

Potential Slum Communities for Phase 2 of the OBA Program

Kecamatan (Area)	**Kelurahan (Sub-area)**	**Community (RW)**	**Approximate Number of Households**
PALYJA-TYPE II			
Cengkareng	Kapuk	RW 05-Gang Langgar 2 (RT 11, 12, 13 and 14) and Gang Taniwan (RT 6, 7 and 8)	400
Pademangan	Ancol	RW 05-Jl. Mangga Dua 8 (RT 11, 12 and 13)	300
Penjaringan	Penjaringan	RW 17-Muara Baru (RT 16) (Areas not connected in Phase 1)	1,000
		Total	**1,700**
TPJ-TYPE II			
Cempaka Putih	Tanah Tinggi	RW 05-Jl. Pulo Gundul (RT 2, 3, and 4)	100
Senen	Kramat	RW 05 (RT 8, 11 and 12)	275
Tanjung Priok	Warakas	RW 08 (RT 10)	250
Tanjung Priok	Warakas	RW 07 (RT 1)	300
		Total	**925**
		Grand Total	**2,625**

Annex 10 - Example of Up-Take Risk Sharing Mechanism

PALYJA

Palyja Connection Ratio Exposure - Type I Connections

All Areas Except Warung Gantung

Number of Potential Connections	9,430	
Willing to Connect Ratio	56.5%	
Uptake adjustment	10%	
Adjusted Willing to Connect Ratio	46.5%	
Number of Willing to Connect	4,385	
Total Cost of Distribution Network	11,025,000,000	
Cost per Service Connection	812,450	7,661,403,500
Total Cost of System	18,686,403,500	
Connection Charge	120,000	
Connection Charge Revenue for Potential Connections	1,131,600,000	
Cost of Network per Willing to Connect Connection	2,514,282	

Summary of Type I Connections	
Total Number of Potential Connections	9,430
Total Number of Willing to Connect Connections, before Up-take adjustment	5,328
Total Number of Willingn to Connect Connections	4,385
Threshold Number of Connections	3,489
Weighted Average Willingness to Connect, before Up-take Adjustment	57%
Weighted Average Willingness to Connect, after Up-take Adjustment	47%
Weighted Average Number of Threshold Connections	37%

Combined Results for Type I Connections	
Indicative Subsidy per Connection	3,206,732
Indicative Maximum Subsidy Needed for Type I Connections	17,554,803,500

Without Risk Sharing

			Revenue				Costs			Surplus / (Deficit)	Payment	
Percentage of Connections Installed		Number of Connections Installed	Subsidy for Network Cost	Subsidy for connection Cost	Connection Charge	Total	Disbtribution Network	Service Connection	Total		First payment (75%)	Second Payment (25%)
	20%	1,886	4,741,935,484	1,305,960,700	226,320,000	6,274,216,184	11,025,000,000	1,532,280,700	12,557,280,700	(6,283,064,516)	4,535,922,138	1,511,974,046
	30%	2,829	7,112,903,226	1,958,941,050	339,480,000	9,411,324,276	11,025,000,000	2,298,421,050	13,323,421,050	(3,912,096,774)	6,803,883,207	2,267,961,069
	40%	3,772	9,483,870,968	2,611,921,400	452,640,000	12,548,432,368	11,025,000,000	3,064,561,400	14,089,561,400	(1,541,129,032)	9,071,844,276	3,023,948,092
	50%	4,715	11,025,000,000	3,264,901,750	565,800,000	14,855,701,750	11,025,000,000	3,830,701,750	14,855,701,750	0	10,717,426,313	3,572,475,438
	60%	5,658	11,025,000,000	3,917,882,100	678,960,000	15,621,842,100	11,025,000,000	4,596,842,100	15,621,842,100	0	11,207,161,575	3,735,720,525
	70%	6,601	11,025,000,000	4,570,862,450	792,120,000	16,387,982,450	11,025,000,000	5,362,982,450	16,387,982,450	0	11,696,896,838	3,898,965,613
	80%	7,544	11,025,000,000	5,223,842,800	905,280,000	17,154,122,800	11,025,000,000	6,129,122,800	17,154,122,800	0	12,186,632,100	4,062,210,700
	90%	8,487	11,025,000,000	5,876,823,150	1,018,440,000	17,920,263,150	11,025,000,000	6,895,263,150	17,920,263,150	0	12,676,367,363	4,225,455,788
	100%	9,430	11,025,000,000	6,529,803,500	1,131,600,000	18,686,403,500	11,025,000,000	7,661,403,500	18,686,403,500	0	13,166,102,625	4,388,700,875
						4,596,842,100						

With Risk Sharing

Scope of Partal Guanratee	80%	of Willing to Connect
Minimum Connection Threshold (80% of Willing to Connect)	37.0%	
Threshold Number of Connection	3489	
Sharing of Shortfall Below Threshold	50%	
		14,942,882,100

Risk Sharing Arrangement

	Subsidy for Network Cost
If connections Installed >4384.95	11,025,000,000
If connections Installed >3489.1 and <4384.95	(2514281.8 x # of Installed Connec.)
If connections Installed <= 3489.1	(2514281.8 x # of Installed Connec.) + (2514281.8 x (3489.1 - # of Installed Connec) x 0.5

With Risk Sharing

			Revenue				Costs			Surplus / (Deficit)	Payment	
Percentage of Connections Installed		Number of Connections Installed	Subsidy for Network Cost	Subsidy for Connection Cost	Connection Charge	Total	Disbtribution Network	Service Connection	Total		First payment (75%)	Second Payment (25%)
	20%	1,886	6,757,258,065	1,305,960,700	226,320,000	8,289,538,765	11,025,000,000	1,532,280,700	12,557,280,700	(4,267,741,935)	6,047,414,073	2,015,804,691
	30%	2,829	7,942,741,935	1,958,941,050	339,480,000	10,241,162,985	11,025,000,000	2,298,421,050	13,323,421,050	(3,082,258,065)	7,426,262,239	2,475,420,746
	40%	3,772	9,483,870,968	2,611,921,400	452,640,000	12,548,432,368	11,025,000,000	3,064,561,400	14,089,561,400	(1,541,129,032)	9,071,844,276	3,023,948,092
	50%	4,715	11,025,000,000	3,264,901,750	565,800,000	14,855,701,750	11,025,000,000	3,830,701,750	14,855,701,750	0	10,717,426,313	3,572,475,438
	60%	5,658	11,025,000,000	3,917,882,100	678,960,000	15,621,842,100	11,025,000,000	4,596,842,100	15,621,842,100	0	11,207,161,575	3,735,720,525
	70%	6,601	11,025,000,000	4,570,862,450	792,120,000	16,387,982,450	11,025,000,000	5,362,982,450	16,387,982,450	0	11,696,896,838	3,898,965,613
	80%	7,544	11,025,000,000	5,223,842,800	905,280,000	17,154,122,800	11,025,000,000	6,129,122,800	17,154,122,800	0	12,186,632,100	4,062,210,700
	90%	8,487	11,025,000,000	5,876,823,150	1,018,440,000	17,920,263,150	11,025,000,000	6,895,263,150	17,920,263,150	0	12,676,367,363	4,225,455,788
	100%	9,430	11,025,000,000	6,529,803,500	1,131,600,000	18,686,403,500	11,025,000,000	7,661,403,500	18,686,403,500	0	13,166,102,625	4,388,700,875

TPJ

TPJ Connection Ratio Exposure
Rorotan Cluster

Number of Potential Connections	578
Willing to Connect Ratio	83%
Uptake adjustment	10%
Adjusted Willing to Connect Ratio	73%
Number of Willing to Connect	423
Total Cost of Distribution Network	1,775,100,000
Cost per Service Connection	812,681
Total Cost of System	2,244,767,455
Connection Charge	120,000
Connection Charge Revenue for Potential Connections	69,350,790
Cost of Network per Willing to Connect Connection	4,196,454

Summary for Type I Connections	
Total Number of Potential Connections	2,168
Total Number of Willing to Connect Connections, before Up-take adjustment	1,364
Total Number of Willingn to Connect Connections	1,147
Threshold Number of Connections	913
Weighted Average Willingness to Connect, before Up-take Adjustment	62.9%
Weighted Average Willingness to Connect, after Up-take Adjustment	52.9%
Weighted Average Number of Threshold Connections	42.1%

0.529078802

Combined Results for Type I Connections	
Indicative Subsidy per Connection	5,201,487
Indicative Maximum Subsidy Needed for Type I Connections	6,673,277,106

Without Risk Sharing

Percentage of Connections Installed		Number of Connections Installed	Revenue: Subsidy for Network Distribution	Revenue: Subsidy per connection	Revenue: Connection Charge	Revenue: Total	Costs: Disbtribution Network	Costs: Service Connection	Costs: Total	Surplus / (Deficit)	Payment: First payment (75%)	Payment: Second Payment (25%)
	20%	116	485,045,656	80,063,333	13,870,158	578,979,147	1,775,100,000	93,933,491	1,869,033,491	(1,290,054,344)	423,831,742	141,277,247
	30%	173	727,568,484	120,095,000	20,805,237	868,468,720	1,775,100,000	140,900,237	1,916,000,237	(1,047,531,516)	635,747,612	211,915,871
	40%	231	970,091,312	160,126,666	27,740,316	1,157,958,294	1,775,100,000	187,866,982	1,962,966,982	(805,008,688)	847,663,483	282,554,494
	50%	289	1,212,614,140	200,158,333	34,675,395	1,447,447,867	1,775,100,000	234,833,728	2,009,933,728	(562,485,860)	1,059,579,354	353,193,118
	60%	347	1,455,136,967	240,189,999	41,610,474	1,736,937,441	1,775,100,000	281,800,473	2,056,900,473	(319,963,033)	1,271,495,225	423,831,742
	70%	405	1,697,659,795	280,221,666	48,545,553	2,026,427,014	1,775,100,000	328,767,219	2,103,867,219	(77,440,205)	1,483,411,096	494,470,365
	80%	462	1,775,100,000	320,253,332	55,480,632	2,150,833,964	1,775,100,000	375,733,964	2,150,833,964	0	1,571,514,999	523,838,333
	90%	520	1,775,100,000	360,284,999	62,415,711	2,197,800,710	1,775,100,000	422,700,710	2,197,800,710	0	1,601,538,749	533,846,250
	100%	578	1,775,100,000	400,316,665	69,350,790	2,244,767,455	1,775,100,000	469,667,455	2,244,767,455	0	1,631,562,499	543,854,166

With Risk Sharing

Percentage Covered	80%
Minimum Connection Threshold (80% of Willing to Connect)	59%
Threshold Number of Connection	341
Sharing of Shortfall Below Threshold	50%

Risk Sharing Arrangement

Number of Connections Installed	*Subsidy Paid*
If connections Installed >0.7325	1,775,100,000
If connections Installed >0.59 and <0.7325	(4196453.9 x # of Installed Connec.)
If connections Installed <= 0.59	(4196453.9 x # of Installed Connec.) + (4196453.9 x (340.974717832957 - # of Installed Connec) x 0.5

With Risk Sharing

Percentage of Connections Installed		Number of Connections Installed	Revenue: Subsidy for Network Distribution	Revenue: Subsidy per connection	Revenue: Connection Charge	Revenue: Total	Costs: Disbtribution Network	Costs: Service Connection	Costs: Total	Surplus / (Deficit)	Payment: First payment (75%)	Payment: Second Payment (25%)
	20%	116	957,965,170	80,063,333	13,870,158	1,051,898,661	1,775,100,000	93,933,491	1,869,033,491	(817,134,830)	778,521,377	259,507,126
	30%	173	1,079,226,584	120,095,000	20,805,237	1,220,126,821	1,775,100,000	140,900,237	1,916,000,237	(695,873,416)	899,491,188	299,830,396
	40%	231	1,200,487,998	160,126,666	27,740,316	1,388,354,980	1,775,100,000	187,866,982	1,962,966,982	(574,612,002)	1,020,460,998	340,153,666
	50%	289	1,321,749,412	200,158,333	34,675,395	1,556,583,140	1,775,100,000	234,833,728	2,009,933,728	(453,350,588)	1,141,430,809	380,476,936
	60%	347	1,455,136,967	240,189,999	41,610,474	1,736,937,441	1,775,100,000	281,800,473	2,056,900,473	(319,963,033)	1,271,495,225	423,831,742
	70%	405	1,697,659,795	280,221,666	48,545,553	2,026,427,014	1,775,100,000	328,767,219	2,103,867,219	(77,440,205)	1,483,411,096	494,470,365
	80%	462	1,775,100,000	320,253,332	55,480,632	2,150,833,964	1,775,100,000	375,733,964	2,150,833,964	0	1,571,514,999	523,838,333
	90%	520	1,775,100,000	360,284,999	62,415,711	2,197,800,710	1,775,100,000	422,700,710	2,197,800,710	0	1,601,538,749	533,846,250
	100%	578	1,775,100,000	400,316,665	69,350,790	2,244,767,455	1,775,100,000	469,667,455	2,244,767,455	0	1,631,562,499	543,854,166

Kebon Pala Cluster

Number of Potential Connections	1,590	
Willing to Connect Ratio	56%	
Uptake adjustment	10%	
Adjusted Willing to Connect Ratio	46%	
Number of Willing to Connect	724	
Total Cost of Distribution Network	3,396,500,000	5,752,643,231
Cost per Service Connection	812,681	4,851,636,967
Total Cost of System	4,688,659,934	901,006,264
		4,314,482,423.41
Connection Charge	120,000	1,438,160,807.80
Connection Charge Revenue for Potential Connections	190,799,493	
Total Subsidy	4,497,860,441	
Subsidy per Connection	6,212,514	
Cost of Network per Willing to Connect Connection	4,691,298	

Without Risk Sharing

			Revenue				Costs			Surplus / (Deficit)	Payment	
Percentage of Connections Installed		Number of Connections Installed	Subsidy for Network Distribution	Subsidy per connection	Connection Charge	Total	Disbtribution Network	Service Connection	Total		First payment (75%)	Second Payment (25%)
	20%	318	1,491,828,908	220,272,088	38,159,899	1,750,260,895	3,396,500,000	258,431,987	3,654,931,987	(1,904,671,092)	1,312,695,671	437,565,224
	30%	477	2,237,743,362	330,408,132	57,239,848	2,625,391,342	3,396,500,000	387,647,980	3,784,147,980	(1,158,756,638)	1,969,043,506	656,347,835
	40%	636	2,983,657,816	440,544,176	76,319,797	3,500,521,789	3,396,500,000	516,863,974	3,913,363,974	(412,842,184)	2,625,391,342	875,130,447
	50%	795	3,396,500,000	550,680,220	95,399,746	4,042,579,967	3,396,500,000	646,079,967	4,042,579,967	0	3,031,934,975	1,010,644,992
	60%	954	3,396,500,000	660,816,265	114,479,696	4,171,795,960	3,396,500,000	775,295,960	4,171,795,960	0	3,128,846,970	1,042,948,990
	70%	1,113	3,396,500,000	770,952,309	133,559,645	4,301,011,954	3,396,500,000	904,511,954	4,301,011,954	0	3,225,758,965	1,075,252,988
	80%	1,272	3,396,500,000	881,088,353	152,639,594	4,430,227,947	3,396,500,000	1,033,727,947	4,430,227,947	0	3,322,670,960	1,107,556,987
	90%	1,431	3,396,500,000	991,224,397	171,719,544	4,559,443,940	3,396,500,000	1,162,943,940	4,559,443,940	0	3,419,582,955	1,139,860,985
	100%	1,590	3,396,500,000	1,101,360,441	190,799,493	4,688,659,934	3,396,500,000	1,292,159,934	4,688,659,934	0	3,516,494,950	1,172,164,983

With Risk Sharing

Percentage Covered	80%	
Minimum Connection Threshold (80% of Willing to Connect)	36%	
Threshold Number of Connection	572	
Sharing of Shortfall Below Threshold	50%	
Risk Sharing Arrangement		4,445,042,254

Number of Connections Installed	*Subsidy Paid*
If connections Installed >0.5553	4,688,659,934
If connections Installed >0.36 and <0.5553	(4691298.34254144 x # of Installed Connec.)
If connections Installed <= 0.36	(4691298.34254144 x # of Installed Connec.) + (4691298.34254144 x (572.398478661088 - # of Installed Connec) x 0.5

With Risk Sharing

			Revenue				Costs			Surplus / (Deficit)	Payment	
Percentage of Connections Installed		Number of Connections Installed	Subsidy for Network Distribution	Subsidy per connection	Connection Charge	Total	Disbtribution Network	Service Connection	Total		First payment (75%)	Second Payment (25%)
	20%	318	2,088,560,471	220,272,088	38,159,899	2,346,992,458	3,396,500,000	258,431,987	3,654,931,987	(1,307,939,529)	1,760,244,343.37	586,748,114.46
	25%	397	2,275,039,085	275,340,110	47,699,873	2,598,079,068	3,396,500,000	323,039,983	3,719,539,983	(1,121,460,915)	1,948,559,301.00	649,519,767.00
	30%	477	2,461,517,698	330,408,132	57,239,848	2,849,165,678	3,396,500,000	387,647,980	3,784,147,980	(934,982,302)	2,136,874,258.64	712,291,419.55
	35%	556	2,647,996,312	385,476,154	66,779,823	3,100,252,288	3,396,500,000	452,255,977	3,848,755,977	(748,503,688)	2,325,189,216.27	775,063,072.09
	40%	636	2,983,657,816	440,544,176	76,319,797	3,500,521,789	3,396,500,000	516,863,974	3,913,363,974	(412,842,184)	2,625,391,342.00	875,130,447.33
	45%	715	3,356,615,043	495,612,198	85,859,772	3,938,087,013	3,396,500,000	581,471,970	3,977,971,970	(39,884,957)	2,953,565,259.74	984,521,753.25
	50%	795	3,396,500,000	550,680,220	95,399,746	4,042,579,967	3,396,500,000	646,079,967	4,042,579,967	0	3,031,934,975.19	1,010,644,991.73
	55%	874	3,396,500,000	605,748,243	104,939,721	4,107,187,964	3,396,500,000	710,687,964	4,107,187,964	0	3,080,390,972.70	1,026,796,990.90
	60%	954	3,396,500,000	660,816,265	114,479,696	4,171,795,960	3,396,500,000	775,295,960	4,171,795,960	0	3,128,846,970.22	1,042,948,990.07
	65%	1,033	3,396,500,000	715,884,287	124,019,670	4,236,403,957	3,396,500,000	839,903,957	4,236,403,957	0	3,177,302,967.74	1,059,100,989.25
	70%	1,113	3,396,500,000	770,952,309	133,559,645	4,301,011,954	3,396,500,000	904,511,954	4,301,011,954	0	3,225,758,965.26	1,075,252,988.42
	75%	1,192	3,396,500,000	826,020,331	143,099,620	4,365,619,950	3,396,500,000	969,119,950	4,365,619,950	0	3,274,214,962.78	1,091,404,987.59
	80%	1,272	3,396,500,000	881,088,353	152,639,594	4,430,227,947	3,396,500,000	1,033,727,947	4,430,227,947	0	3,322,670,960.30	1,107,556,986.77
	85%	1,351	3,396,500,000	936,156,375	162,179,569	4,494,835,944	3,396,500,000	1,098,335,944	4,494,835,944	0	3,371,126,957.82	1,123,708,985.94
	90%	1,431	3,396,500,000	991,224,397	171,719,544	4,559,443,940	3,396,500,000	1,162,943,940	4,559,443,940	0	3,419,582,955.33	1,139,860,985.11
	95%	1,510	3,396,500,000	1,046,292,419	181,259,518	4,624,051,937	3,396,500,000	1,227,551,937	4,624,051,937	0	3,468,038,952.85	1,156,012,984.28
	100%	1,590	3,396,500,000	1,101,360,441	190,799,493	4,688,659,934	3,396,500,000	1,292,159,934	4,688,659,934	0	3,516,494,950.37	1,172,164,983.46

Annex 11 Survey Results

A household survey was conducted for 1,888 households[17] in thirteen Type-I communities. This survey was designed to determine the willingness of the target communities to connect to the piped water supply system, and to obtain other information such as:

- Current levels of water consumption and expenditure
- Willingness to pay connection charges and the monthly water bill, and
- Socio-economic information.

For the purpose of the survey, the communities were grouped into three clusters (TPJ-Rorotan, TPJ-Kebon Pala, and PALYA[18]), and selected the respondent households using cluster-based random sampling. While the findings are statistically representative at the cluster level, we have reported the findings by Kelurahan (Sub-district) to illustrate the survey results. A limited household survey (110 respondents) was conducted at the end of the project in the community of Muara Baru, the location for the master meter program (Type II).

In this Annex, the key survey findings relevant to the design of the GPOBA Program are presented. The results for the Muara Baru are presented separately.

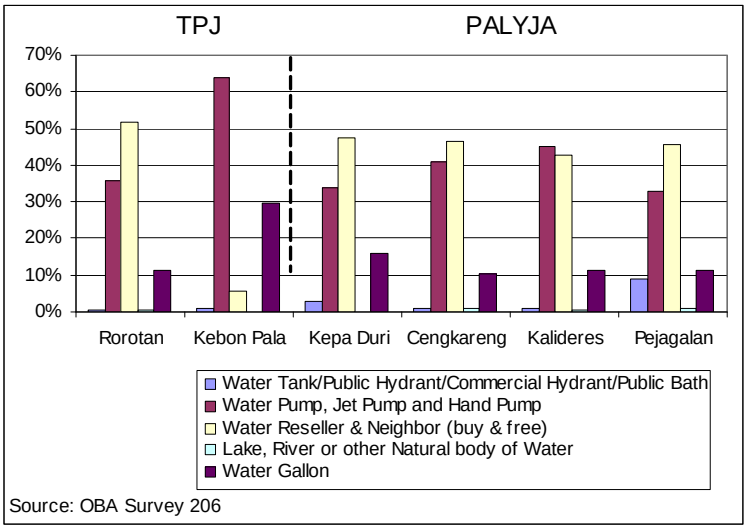
1.1 Current Water Consumption and Expenditure

The majority of survey respondents rely either on ground water (45 percent) pumped through a water pump, jet pump or hand pump or on water obtained from water resellers or neighbors (38 percent). Figure 1 illustrates the main sources of water for each Kelurahan. Average water usage in the survey area was 24.2 cubic meters (25.9m^3 in the TPJ area and 23.2m^3 in the PALYJA area).

[17] A total of 2,000 surveys were conducted, but only 1,888 were valid.

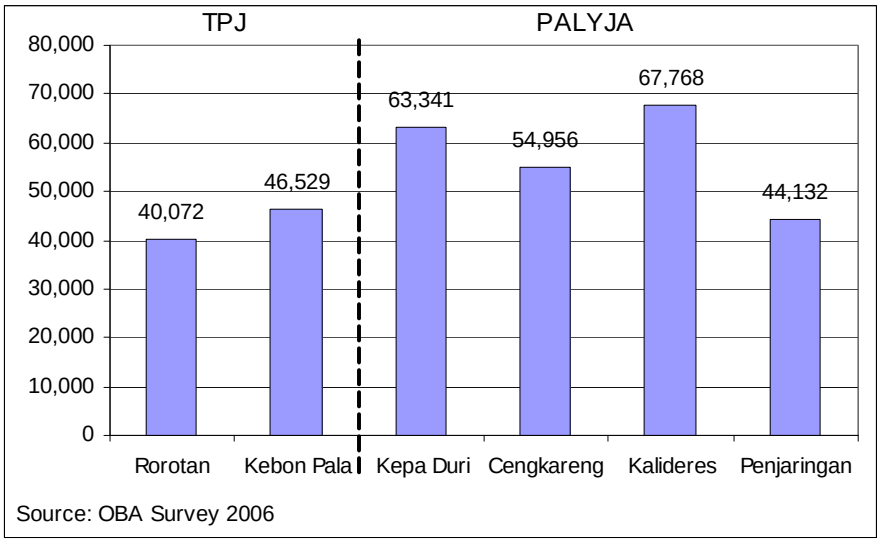
[18] A survey was done for a second cluster in the PALYJA area, but the results had to be discarded because it turned out that the surveys were done in areas that were not consistent with the spatial planning criteria.

Figure 1: Current Sources of Water for Target Communities



The average monthly expenditure for water supply across respondent households is IDR 52,800 (IDR 37,275 excluding pumping costs), with an average of IDR 43,300 in the TPJ area and IDR 57,550 in the PALYJA area (IDR. 37,774 and IDR 37,025 excluding pumping costs, respectively). The figures have been calculated to include pumping costs because the electricity costs must be factored in to represent the true cost to the household. Figure 2 shows these figures (including pumping costs) by Sub-District.

Figure 2: Average Monthly Expenditure for Water Supply Across all Sources (IDR)



From the survey results, there is wide variation in both the quantity of water consumed by households as well as their monthly expenditures. For illustration purposes, the average cost

of water paid by households[19] has been calculated to compare this with the cost of an equivalent amount of water under the Group II tariff. On average, households are paying IDR 4,530/m^3. Table 1 compares the actually monthly expenditure for water (based on the current average consumption) with the monthly payment for an equivalent amount at the current tariff. This illustrates that a typical household using 24.2 cubic meters of water per month could potentially save over IDR 84,000 per month. However, it should be noted that many households use significantly less water per month.

Table 1: Average Monthly Cost Compared to Network Supply

	Monthly Usage (m3)*	Avg Cost (Rp/m^3)	Total Monthly Cost	% Avg. HH income
TPJ Communities	25.8	3,360	86,688	7.6%
PALYJA Communities	23.2	5,110	118,552	8%
Combined	24.2	4,530	109,626	**8%**
Network Supply	24.2 (using same avg. usage)	950 (first 20 m^3) and 1425 (after 20 m^3)	24,985	2.2%

Source: OBA Survey

* This compares to an average water consumption of 26.2 for existing Group II connections.

Box 1: Water Cost in Muara Baru

In the dry season, households obtain half of their water from water tanks, public hydrants, and public baths. Currently households pay IDR 4,000 to 20,000 per cubic meter to water resellers who purchase the water from PALYA at IDR 950 per cubic meter. In the rainy season, households increase their reliance on collected rain water and ground water. Households report that alternative sources have problems with odor, taste and color.

The average monthly water usage is 33.9 cubic meters and the average expenditure is IDR. 21,278.

Source: OBA Survey

[19] This is calculated on the basis of the average per cubic meter cost of water for each household based on the quality consumed and price paid. This is different than the average cost of unit cost of water based on total volume consumed and amount spent for all households. While the later results in a much lower unit cost of water, it does not represent the average cost faced by each household. For this reason, we have chosen to present the results based on a household average.

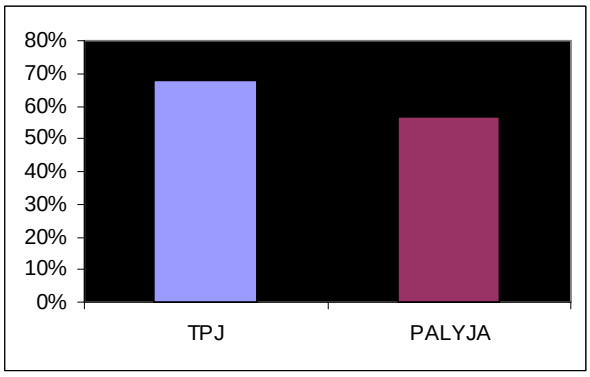
Willingness to Connect and Pay for Services

The survey results were used to calculate the household Willingness-to-Connect (WTC). Respondents were asked about their willingness to connect to the network, assuming that they would have to pay an estimated monthly water bill between IDR 20,000-30,000. This amount was selected because it reflects the range that a household would pay for the average water consumption for this customer category at the current tariff. For example, given average consumption of 26.2 cubic meters, a household would currently pay IDR 27,835. This question on willingness-to-connect, was asked independently of the willingness to pay a one-time connection charge, required to obtain the household connection.

Willingness to connect

As illustrated in Figure 3, the overall WTC in the TPJ zone is higher than in the PALYJA zone. Using a weighted average of the two TPJ clusters, the survey showed a WTC of 67.8 percent for the TPJ zone. This was influenced by the relatively high WTC in Kelurahan Rorotan where there was a WTC of 83 percent. The WTC in the PALYJA zone is 56.5 percent. As illustrated in Figure 4, this ranged from 44 percent[20] to 71 percent in the different Kelurahan.[21]

Figure 3: Willingness to Connect Across Concession Area

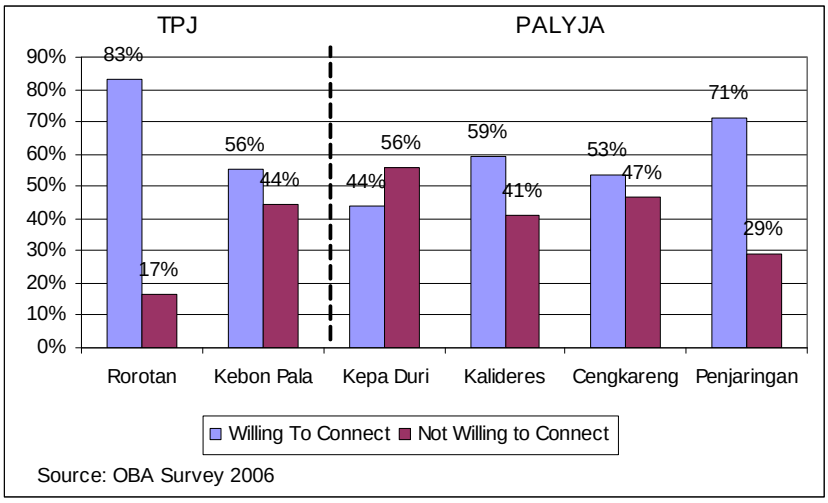


Source: OBA Survey

[20] Although the WTC in Kel. Kepa Duri is only 44 percent, we believe it should not be excluded based on the survey results because the sample is not significant at the individual community level but at the cluster level.

[21] As explained earlier in this report, a household survey was not conducted in Kel. Kalideres (Warung Gangtung). As such, we applied the same WTC as in the PALYJA cluster. The characteristics of this community are similar to the others in Kel Kalideres (Kampung Buaran, Gombol Paya, and Kampung Rawalele) were the WTC was 59 percent.

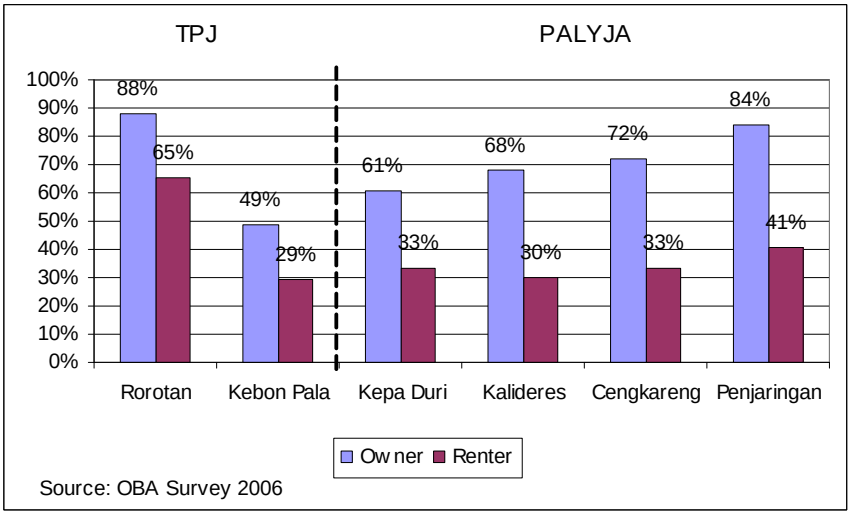
Figure 4: Willingness to Connect by Sub-District



Households that said they were not willing to connect were asked why they were not interested. The main reasons were: "cannot afford to pay any water tariff" (25 percent) and 'water from alternative sources is more convenient" (23 percent).

One factor that affected household willingness to connect is whether the household owned or rented the property. Owners were more likely to express interest in a connection than renters. This is likely because renters are not the ones to decide whether to request a connection to the network. Figure 5 illustrates the breakdown of the WTC by owners and renters.

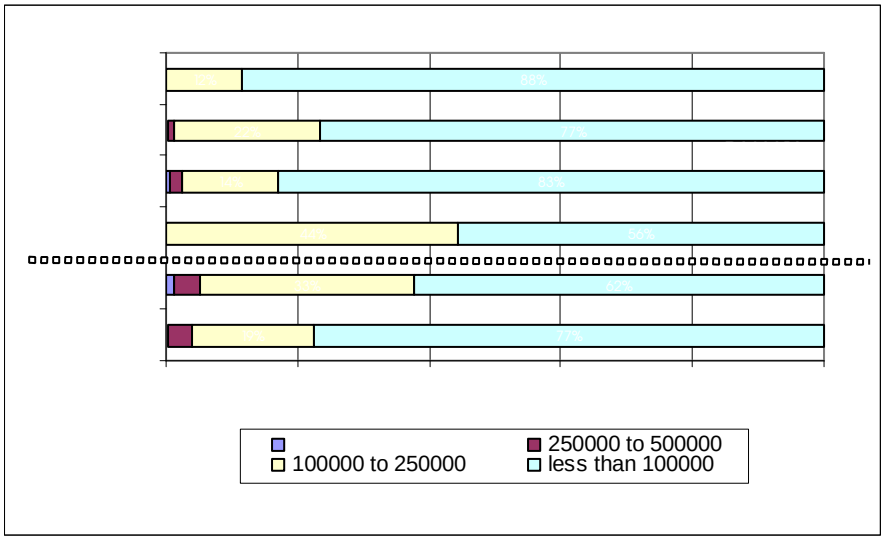
Figure 5: Willingness to Connect: Owners versus Renters



Connection charge

An important reason why many poor households do not connect to the network is because the connection charge represents a significant one-time expenditure. A typical Group II connection charge is IDR 474,000. Seventy four percent showed a willingness to pay a connection charge of less than IDR 100,000, with only 24 percent willing to pay between IDR 100,000 and 250,000. The Type-I connection charge for the OBA program has been set at IDR 120,000, which households can pay in monthly .

Figure 6: Willingness to pay connection charge



The focus of the GPOBA Program is to increase access in poor communities. This was also restated in the policy criteria set out by DKI Jakarta. However, two factors prevented the inclusion of very poor communities in the first phase of the GPOBA Program:

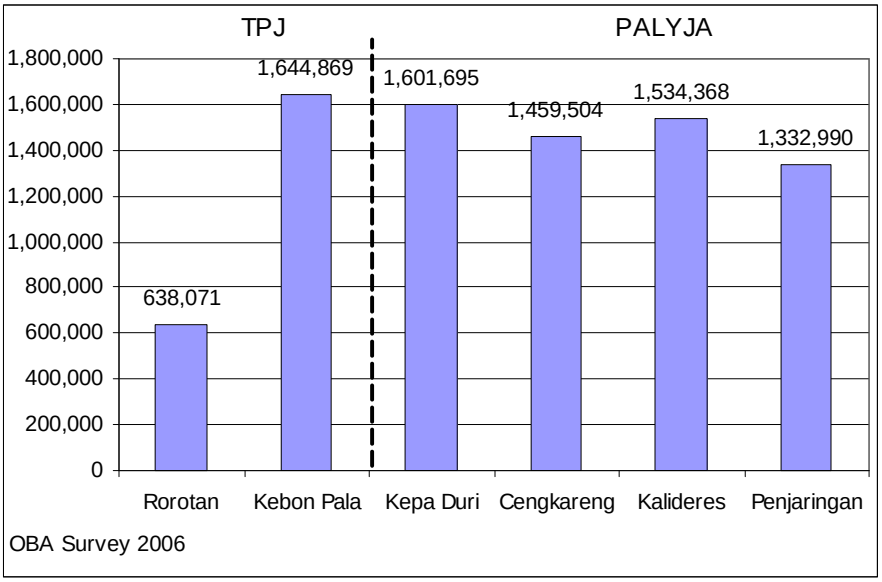
Firstly, the very poor in Jakarta tend to live in slum areas, virtually all of which are considered to be illegal areas and therefore were excluded from the GPOBA Program when the spatial planning criterion was applied.

Secondly, much of Jakarta's very poor live in the northern part of the city, an area that was excluded from the GPOBA Program due to a lack of sufficient raw water in the system.

The first phase of the program is therefore focused communities which are low income but not the very poor.

In the survey areas, the average reported monthly income is IDR 1,368,500 (US$147), with IDR 1,141,500 (US$122) in the TPJ area and IDR 1,482,100 (US$159) in the PALYJA area. The Central Statistics Bureau defined the 2004 poverty line for a family of four at IDR 890,000 (US$96) income per month. Based on the survey results, only one community had an average monthly income of less than the poverty line. However, the majority of households in these areas will qualify for a Group II (very modest housing) connection because of the household characteristics.[22]

Figure 7: Monthly Household Income (Rp.)

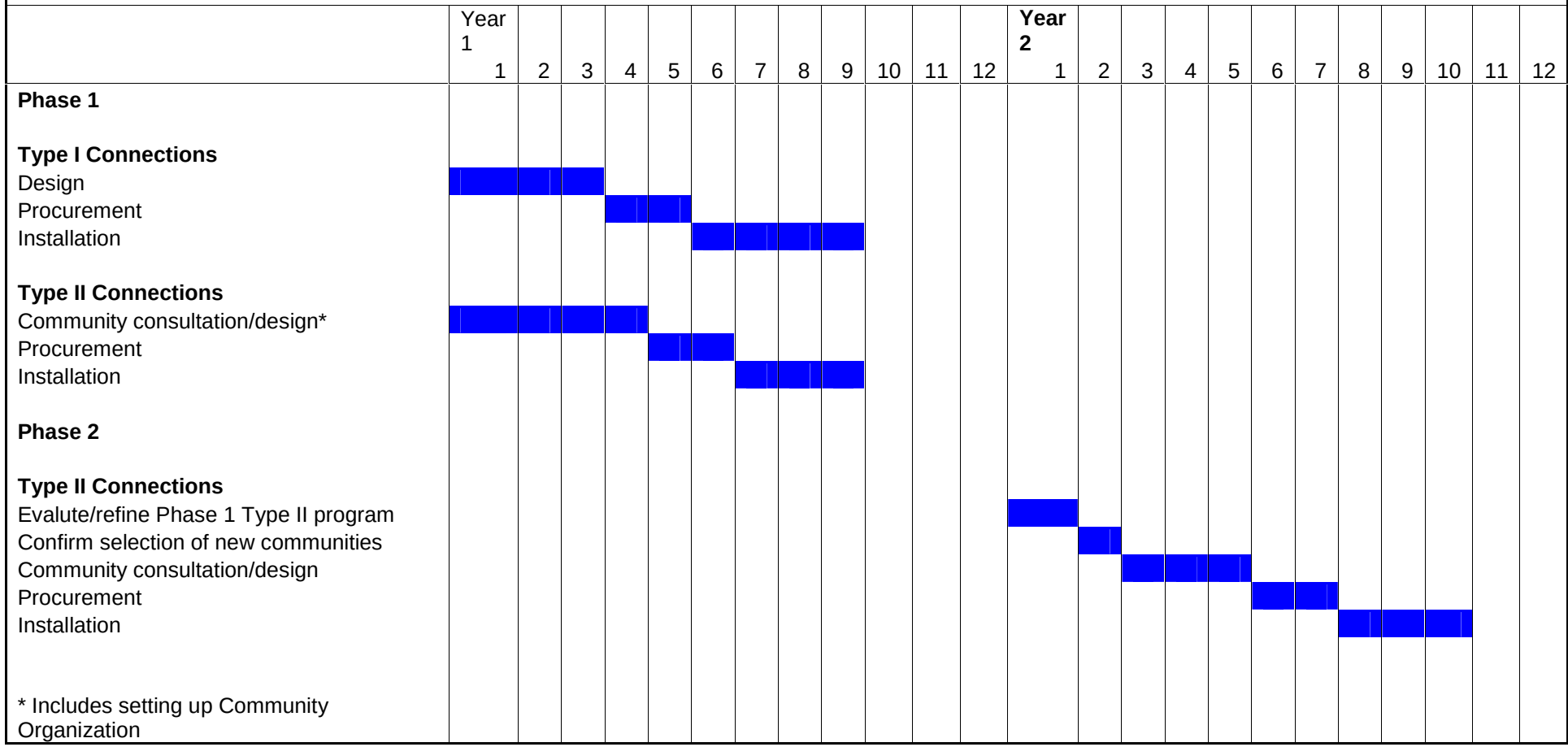


Based on the limited household survey conducted in the Muara Baru community, the average income is reported at about IDR 984,545 a month.

[22] A 2005 survey of 110 households conducted in 10 poor Kelurahan in Jakarta targeted to benefit from a water program funded by a national fuel subsidy program found that the household income levels ranged from less than Rp. 750,000 to more than Rp. 3 million (Michelle Kooy, Nur Endah Shofiani, Karen Bakker, 2006). Another survey (Gerlach, 2004) conducted in slum areas in Jakarta reports that majority of respondents worked in the informal sector and their household income levels did not exceed Rp. 1.5 million.

Annex 12. Implementation Schedule Gantt Chart

JAKARTA OBA IMPLEMENTATION SCHEDULE



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