# Midterm Review and Verification Survey for Water and Sanitation Hibah

Consolidated Report

TECHNICAL REPORT

SMEC

Australian AID

Indonesia Infrastructure Initiative

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## INDONESIA INFRASTRUCTURE INITIATIVE

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PT Mitra Lingkungan Dutaconsult

Jakarta, 31 August 2011

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# ACRONYMS

| | |
|---|---|
| APBD | Anggaran Penerimaan dan Belanja Daerah; Regional Revenues and Expenses Budgeting |
| AusAID | Australian Agency for International Development |
| CPMU | Central Program Management Unit |
| DED | Detailed engineering design |
| DGHS | Directorate General of Human Settlements (“Cipta Karya”) |
| DJP | Directorate General of the Treasury |
| DJPK | Directorate General of Fiscal Balance |
| DPA | Daftar Pelaksanaan Anggaran; List of Budget Implementation |
| GoA | Government of Australia |
| GoI | Government of Indonesia |
| HC | House connection |
| Hibah | Grant |
| IDR | Indonesian Rupiah |
| IndII | Indonesia Infrastructure Initiative |
| ID | Identity |
| Kab. | Kabupaten; Region |
| Kota | City |
| LG | Local Government |
| MBR | Masyarakat Berpenghasilan Rendah; Low income communities |
| MLD | PT Mitra Lingkungan Dutaconsult |
| MoF | Ministry of Finance |
| MoPW | Ministry of Public Works (PU) |
| MTR | Mid-term review |
| NPPH | Naskah Perjanjian Penerusan Hibah (Sumber Hibah Luar Negeri); Letter of Agreement on Grant Disbursement (Overseas Grant Source) |
| OBA | Output Based Aid |
| PAM | Pengembangan Air Minum; Drinking Water Development |
| PDAM | Perusahaan Daerah Air Minum; Regional Drinking Water Company |
| PDPAL | Perusahaan Daerah Pengelolaan Air Limbah; Regional Wastewater Treatment Company |

| | |
|---|---|
| PE | Poly ethylene |
| Perda | Peraturan Daerah; local regulation |
| PIM | Project Implementation Manual (Pedoman Pengelolaan) |
| PIU | Project Implementation Unit |
| PMP | Penyertaan Modal Pemerintah; Local Government Equity Provision |
| PPLP | Pengembangan Penyehatan Lingkungan Permukiman; Settlement and Environmental Health Development |
| PPMU | Provincial Program Management Unit |
| PU | Pekerjaan Umum; Public Works (Ministry) |
| PVC | Poly vinyl chloride |
| RKUD | Rekening Kas Umum Daerah; LG current account |
| RPH | Rencana Penggunaan Hibah; Grant application plan |
| SPM | Surat Perintah Pembayaran; Payment instruction letter |
| SPPH | Surat Permintaan Penyaluran Hibah; Letter of request of grant disbursement |
| SPTJM | Surat Pernyataan Tanggung Jawab Mutlak; Letter certifying acceptance of full responsibility |
| SP2D | Surat Perintah Pencairan Dana; Instruction letter of fund liquidation |
| VA | Volt Ampere |
| WSI | Water and Sanitation Initiative |
| W&S | Water and Sanitation |

# EXECUTIVE SUMMARY

An overview of the allocations of service connections supported by the Water and Sanitation (W&S) Hibah program is given in the following table. The total allocation of service connections supported by the program is 82,000: 77,000 for water supply (target W&S Hibah: 70,000) and 5,000 for sanitation (target W&S Hibah: 10,000). The table also indicates the achievements per batch for water supply and sanitation house connections.

**Table 1: Overview of the allocations and realisations of service connections for water and wastewater supported by the W&S Hibah program**

| | Targets for HC Installation by LGs | | | | Achievements (31 August 2011) | |
|---|---|---|---|---|---|---|
| | Original Allocation | Cancelled/ Unachieved | Reallocation of June 2011 | Total Final Allocation | # | % |
| **Water** | | | | | | |
| Batch 1 | 42,300 | 1,500 | 1,500 | 42,300 | 42,300 | 100 |
| Batch 1, Additional | 13,500 | - | 1,000 | 14,500 | 14,500 | 100 |
| Batch 2 | 16,700 | 1,700 | 1,000 | 16,700 | 15,808 | 95 |
| Batch 2, Additional | 3,500 | - | - | 3,500 | 3,500 | 100 |
| *Total* | *76,000* | *3,200* | *3,500* | *77,000* | *76,108* | 99 |
| **Sanitation** | | | | | | |
| Batch 1 | 2,600 | - | - | 2,600 | 2,600 | 100 |
| Batch 1, Additional | 2,400 | 2,000 | - | 400 | 400 | 100 |
| Batch 2 | 2,000 | 174 | - | 2,000 | 1,826 | 91 |
| *Total* | *7,000* | *2,174* | - | *5,000* | *4,826* | 97 |
| **W&S Hibah** | | | | | | |
| Batch 1 | 60,800 | 3,500 | 2,500 | 59,800 | 59,800 | 100 |
| Batch 2 | 22,200 | 1,874 | 1,000 | 22,200 | 21,134 | 95 |
| ***Grand Total*** | ***83,000*** | ***5,374*** | ***3,500*** | ***82,000*** | ***80,934*** | ***99*** |

In the following two tables overviews are provided of the targets for installation of water and sanitation service connections for batch-1 and batch-2 local governments respectively, as well as the HCs verified and found technical eligible for the W&S Hibah program.

**Table 2: Targets versus actual installation of service connections for batch-1 LGs**

| No. | Local Governments | Final HC Target | HCs Verified | |
|---|---|---|---|---|
| | | # | # | % |
| 1 | Kota Palembang | 6,000 | 6,000 | 100.0% |
| 2 | Kab. Serang | 4,000 | 4,000 | 100.0% |
| 3 | Kab. Ciamis | 1,500 | 1,500 | 100.0% |
| 4 | Kab. Karawang | 5,000 | 5,000 | 100.0% |
| 5 | Kab. Kuningan | 5,150 | 5,150 | 100.0% |
| 6 | Kab. Bogor | 4,500 | 4,500 | 100.0% |
| 7 | Kota Bogor | 2,000 | 2,000 | 100.0% |
| 8 | Kab. Garut | 3,650 | 3,650 | 100.0% |
| | *Sub-total* | *31,800* | *31,800* | *100.0%* |
| 9 | Kab. Wonosobo | 5,000 | 5,000 | 100.0% |
| 10 | Kab. Wonogiri | 2,000 | 2,000 | 100.0% |
| 11 | Kab. Klaten | 3,000 | 3,000 | 100.0% |
| 12 | Kab. Cilacap | 1,300 | 1,300 | 100.0% |
| 13 | Kab. Boyolali | 1,150 | 1,150 | 100.0% |
| 14 | Kab. Kudus | 1,000 | 1,000 | 100.0% |
| 15 | Kota Pekalongan | 500 | 500 | 100.0% |
| | *Sub-total* | *13,950* | *13,950* | *100.0%* |
| 16 | Kab. Bangkalan | 1,100 | 1,100 | 100.0% |
| 17 | Kab. Jombang | 1,200 | 1,200 | 100.0% |
| 18 | Kota Malang | 4,000 | 4,000 | 100.0% |

| No. | Local Governments | | Final HC Target # | HCs Verified # | HCs Verified % |
|---|---|---|---|---|---|
| 19 | Kab. | Lombok Timur | 500 | 500 | 100.0% |
| | | *Sub-total* | *6,800* | *6,800* | *100.0%* |
| 20 | Kab. | Banjar | 2,000 | 2,000 | 100.0% |
| 21 | Kota | Banjarbaru | 1,500 | 1,500 | 100.0% |
| 22 | Kota | Palangkaraya | 750 | 750 | 100.0% |
| | | *Sub-total* | *4,250* | *4,250* | *100.0%* |
| | | ***Total Water HCs*** | ***56,800*** | ***56,800*** | ***100.0%*** |
| 23 | Kota | Surakarta | 800 | 800 | 100.0% |
| | | *Sub-total* | *800* | *800* | *100.0%* |
| 24 | Kota | Banjarmasin | 2,000 | 2,000 | 100.0% |
| 25 | Kota | Balikpapan | 200 | 200 | 100.0% |
| | | *Sub-total* | *2,200* | *2,200* | *100.0%* |
| | | ***Total Sanitation HCs*** | ***3,000*** | ***3,000*** | ***100.0%*** |
| | | **Grand Total HCs** | **59,800** | **59,800** | **100.0%** |

**Table-3: Targets versus actual installation of service connections for batch-2 LGs**

| No. | Local Governments | | Final HC Target # | HCs Verified # | HCs Verified % |
|---|---|---|---|---|---|
| 1 | Kota | Padang | 1,500 | 1,500 | 100.0% |
| 2 | Kab. | Muara Enim | 1,500 | 1,500 | 100.0% |
| 3 | Kab. | Lampung Utara | 700 | 0 | 0.0% |
| 4 | Kab. | Pandeglang | 1,000 | 1,000 | 100.0% |
| 5 | Kab. | Cianjur | 1,000 | 1,000 | 100.0% |

| No. | Local Governments | Final HC Target # | HCs Verified # | HCs Verified % |
|---|---|---|---|---|
| 6 | Kab. Sukoharjo | 1,000 | 1,000 | 100.0% |
| | *Sub-total* | *6,700* | *6,000* | *89.6%* |
| 7 | Kab. Sidoarjo | 5,000 | 5,000 | 100.0% |
| 8 | Kab. Situbondo | 0 | 0 | |
| 9 | Kota Jayapura | 500 | 500 | 100.0% |
| 10 | Kab. Kapuas | 1,000 | 808 | 80.8% |
| 11 | Kota Banjarmasin | 5,000 | 5,000 | 100.0% |
| 12 | Kota Balikpapan | 1,000 | 1,000 | 100.0% |
| 13 | Kab. Donggala | 1,000 | 1,000 | 100.0% |
| | *Sub-total* | *13,500* | *13,308* | *98.6%* |
| | ***Total Water HCs*** | ***20,200*** | ***19,308*** | ***95.6%*** |
| 14 | DKI Jakarta | 500 | 326 | 65.2% |
| 15 | Kota Bandung | 1,500 | 1,500 | 100.0% |
| | *Sub-total* | *2,000* | *1,826* | *91.3%* |
| | ***Total Sanitation HCs*** | ***2,000*** | ***1,826*** | ***91.3%*** |
| | **Grand Total HCs** | **22,200** | **21,134** | **95.2%** |

A customer satisfaction survey among beneficiaries of the new water supply or sewerage connections was carried out in 2011. Seven thousand of the batch-1 beneficiaries were interviewed: 6,020 (14 percent) of those who received water supply connections and 980 (38 percent) of the sewerage connections. In case of batch-2, a total of 2,640 recipients of service connections were interviewed: 2,390 (12percent) for water supply and 250 (12.5 percent) for sewerage. Ninety-seven percent of the water supply connection beneficiaries indicated to be satisfied with the service provided by the PDAM. In contrast, only 71percent of the sewerage connection beneficiaries were satisfied. In particular in Kota Banjarmasin, the level of dissatisfaction with the service was substantial: about 50percent.

Details of the general level of satisfaction among beneficiaries of water supply and sewerage connections with the services of PDAM/PDPAL are indicated in the tables below for batch-1 and batch-2 local governments respectively.

**Table 4: Level of satisfaction with PDAM/PDPAL services for batch-1 LGs**

| No. | Local Governments | | Satisfied % |
|---|---|---|---|
| 1 | Kota | Palembang | 100.0% |
| 2 | Kab. | Serang | 100.0% |
| 3 | Kab. | Ciamis | 100.0% |
| 4 | Kab. | Karawang | 100.0% |
| 5 | Kab. | Kuningan | 99.5% |
| 6 | Kab. | Bogor | 100.0% |
| 7 | Kota | Bogor | 100.0% |
| 8 | Kab. | Garut | 97.8% |
| | | *Sub-total* | *99.7%* |
| 9 | Kab. | Wonosobo | 97.7% |
| 10 | Kab. | Wonogiri | 96.4% |
| 11 | Kab. | Klaten | 95.8% |
| 12 | Kab. | Cilacap | 99.5% |
| 13 | Kab. | Boyolali | 98.2% |
| 14 | Kab. | Kudus | 100.0% |
| 15 | Kota | Pekalongan | 100.0% |
| | | *Sub-total* | *97.6%* |
| 16 | Kab. | Bangkalan | 98.8% |
| 17 | Kab. | Jombang | 94.4% |
| 18 | Kota | Malang | 100.0% |
| 19 | Kab. | Lombok Timur | 98.7% |
| | | *Sub-total* | *98.1%* |
| 20 | Kab. | Banjar | 90.7% |
| 21 | Kota | Banjarbaru | 98.3% |

| No. | Local Governments | | Satisfied % |
|---|---|---|---|
| 22 | Kot | Palangkaraya | 80.9% |
| | | *Sub-total* | *92.1%* |
| | | ***Total Water HCs*** | ***98.3%*** |
| 23 | Kota | Surakarta | 94.3% |
| | | *Sub-total* | *94.3%* |
| 24 | Kota | Banjarmasin | 49.9% |
| 25 | Kota | Balikpapan | 86.7% |
| | | *Sub-total* | *51.7%* |
| | | ***Total Sanitation HCs*** | ***66.9%*** |
| | | **Grand Total HCs** | **93.9%** |

**Table 5: Level of satisfaction with PDAM/PDPAL services for batch-2 LGs**

| No. | Local Governments | | Satisfied % |
|---|---|---|---|
| 1 | Kota | Padang | 96.0% |
| 2 | Kab. | Muara Enim | 93.5% |
| 3 | Kab. | Lampung Utara | no HCs realised |
| 4 | Kab. | Pandeglang | 99.3% |
| 5 | Kab. | Cianjur | 92.1% |
| 6 | Kab. | Sukoharjo | 100.0% |
| | | *Sub-total* | *96.2%* |
| 7 | Kab. | Sidoarjo | 90.0% |
| 8 | Kab. | Situbondo | withdrew from W&S Hibah |
| 9 | Kota | Jayapura | 100.0% |

| No. | Local Governments | | Satisfied % |
|---|---|---|---|
| 10 | Kab. | Kapuas | 98.6% |
| 11 | Kota | Banjarmasin | 99.4% |
| 12 | Kota | Balikpapan | 97.2% |
| 13 | Kab. | Donggala | 97.1% |
| | | *Sub-total* | *94.9%* |
| | | ***Total Water HCs*** | ***95.3%*** |
| 14 | DKI | Jakarta | 96.4% |
| 15 | Kota | Bandung | 84.6% |
| | | *Sub-total* | *87.2%* |
| | | ***Total Sanitation HCs*** | ***87.2%*** |
| | | **Grand Total HCs** | **94.6%** |

The acceleration profiles of installation and verification progresses from December 2010 up to September 2011 of water supply and sewerage house connections by PDAMs batch-1 and batch-2 (original, additional and reallocation water HCs) and PDPALs batch-1 and batch-2 (original and additional sanitation HCs) are shown in the following Figure 1, 2 and 3. Since the Consultant was formally started to review the installation progress on 9 November 2010, these figures are set on the basis of 18,061 verified house connections of batch-1 LGs on the middle of December 2010. At that moment, the installed connections numbers of 5 May 2010 SPPH (batch-1's LGs Letter of Request of Grant Disbursement date) has reached 28,365 HCs, 63.17% of the batch-1 LGs' first target set (44,900 HCs). Parallel to that, the installed connections numbers of 9 September 2010 SPPH (batch-2's LGs Letter of Request of Grant Disbursement date) has reached 1,481 HCs, 7.91percent of the batch-2 LGs' first target set (18,700 HCs).

By combining the monthly reported data, the acceleration profiles of total water supply and sewerage house connections installation and verification progresses of all LGs in batch-1 and batch-2 are presented in Figure 4, 5 and 6.

**Figure 1: Water Supply HCs installation and verification progress of PDAMs batch-1**

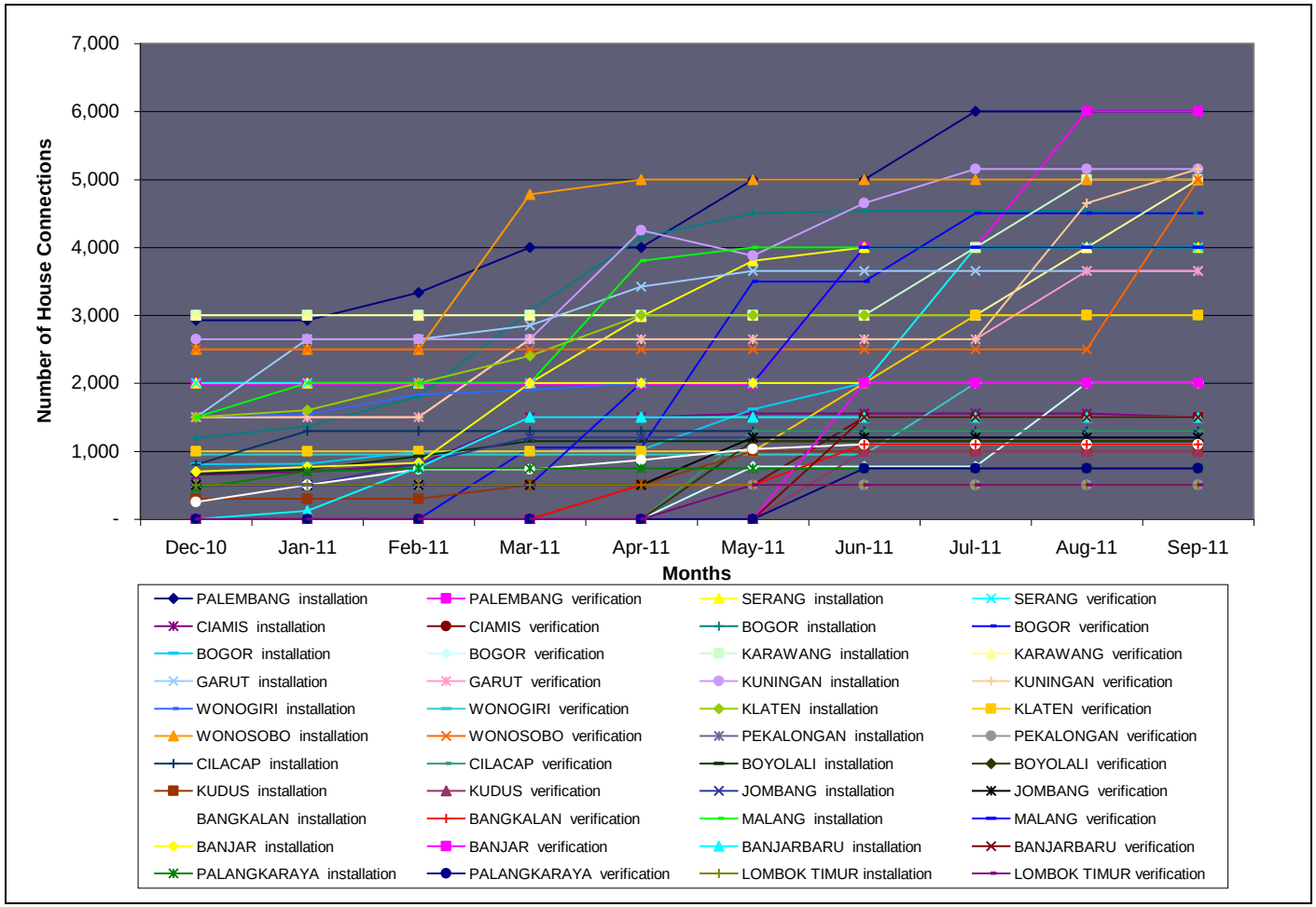


**Figure 2: Water Supply HCs installation and verification progress of PDAMs batch-2**

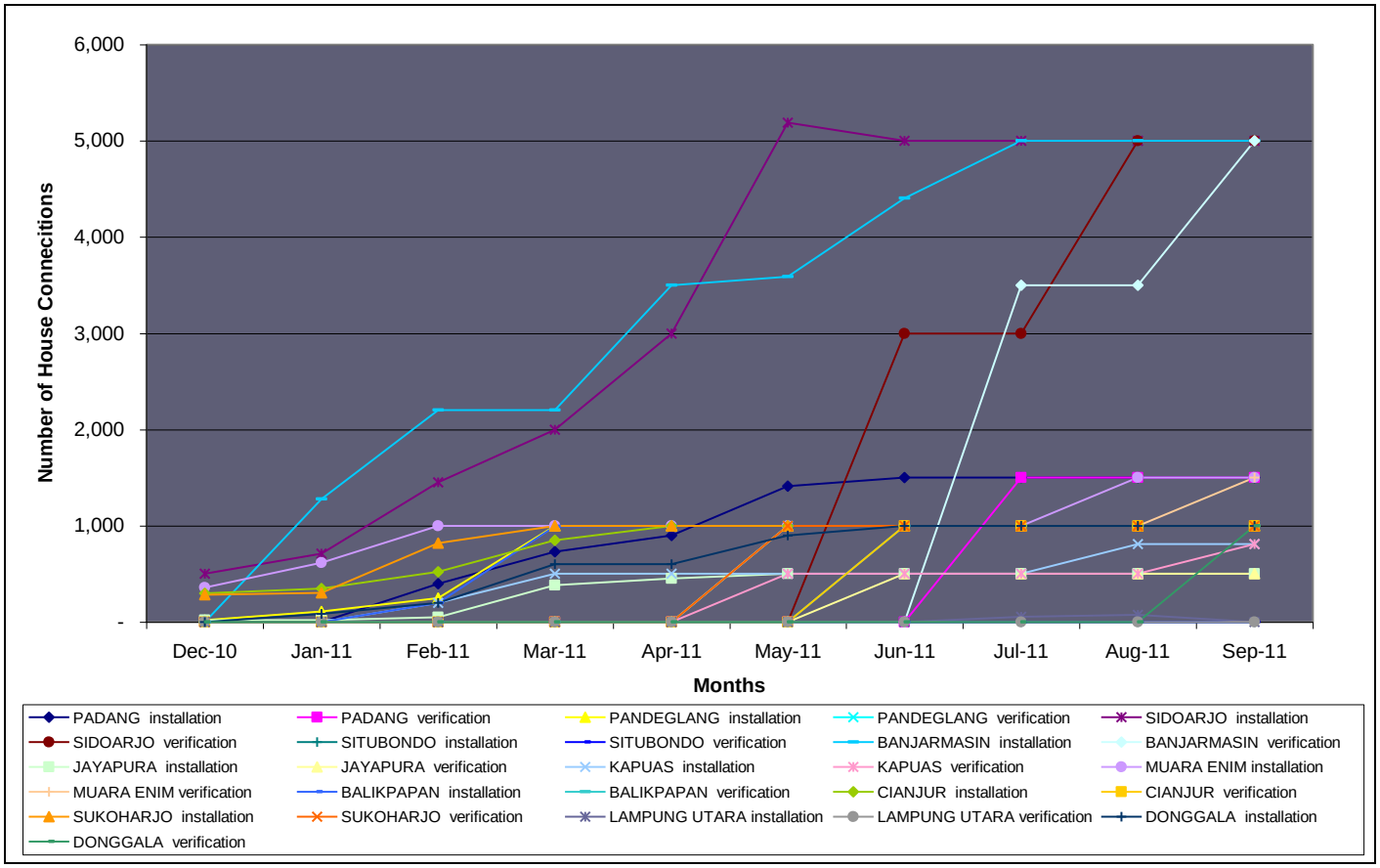


**Figure 3: Sewerage HCs installation and verification progress of PDPALs batch-1 and batch-2**

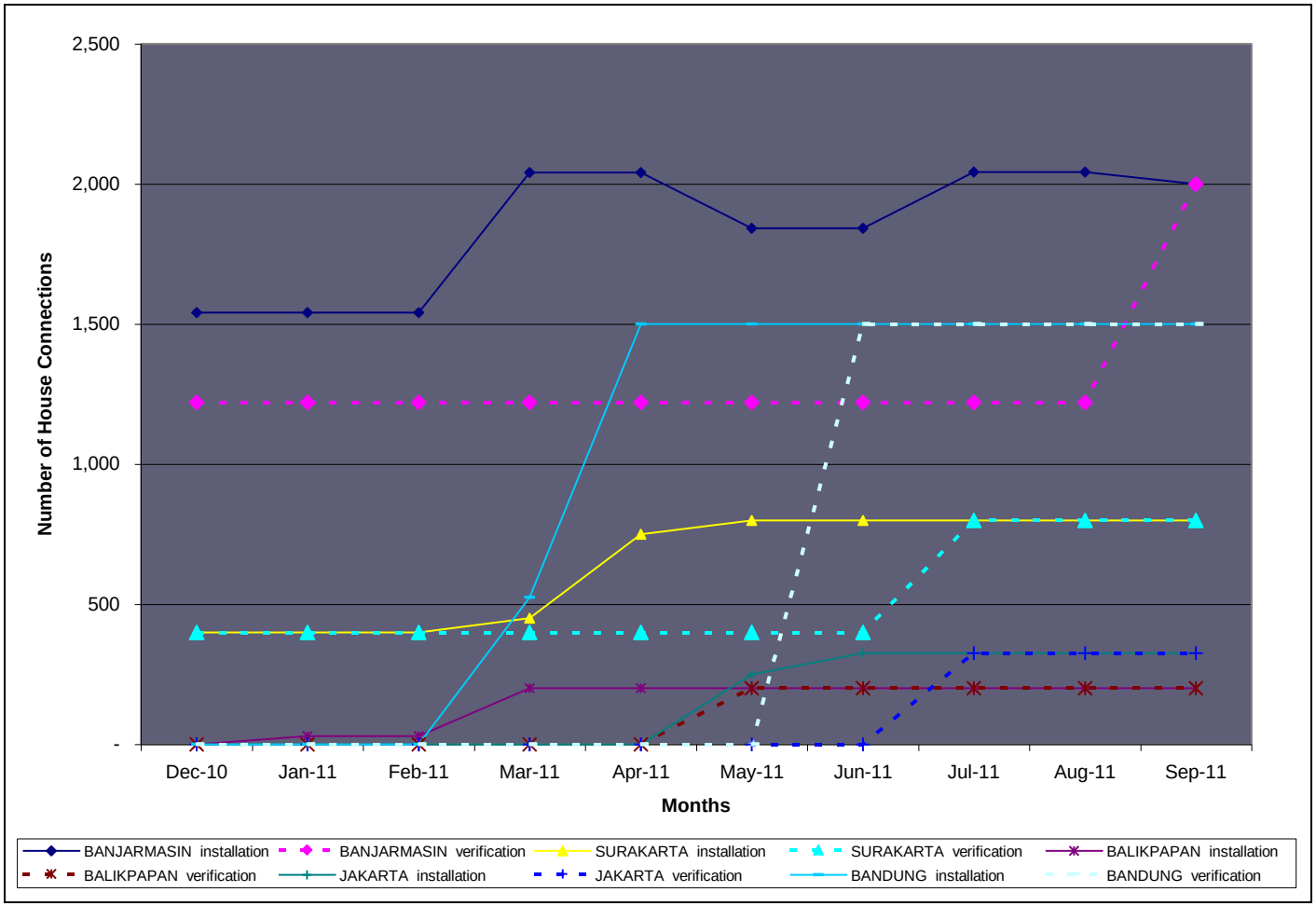


**Figure 4: Acceleration profiles of total water supply HCs installation and verification progress of PDAMs batch-1**

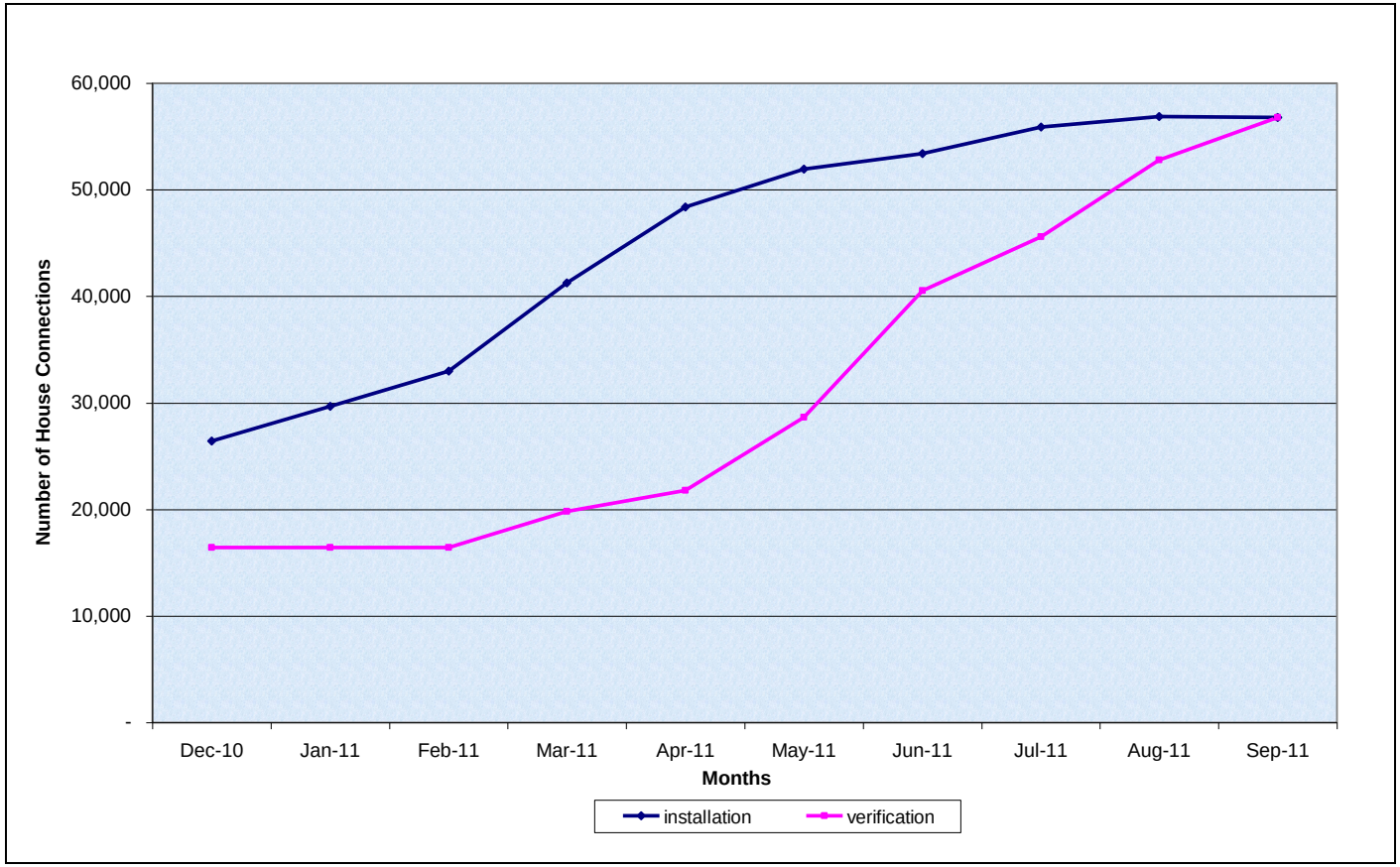


**Figure 5: Acceleration profiles of total water supply HCs installation and verification progress of PDAMs batch-2**

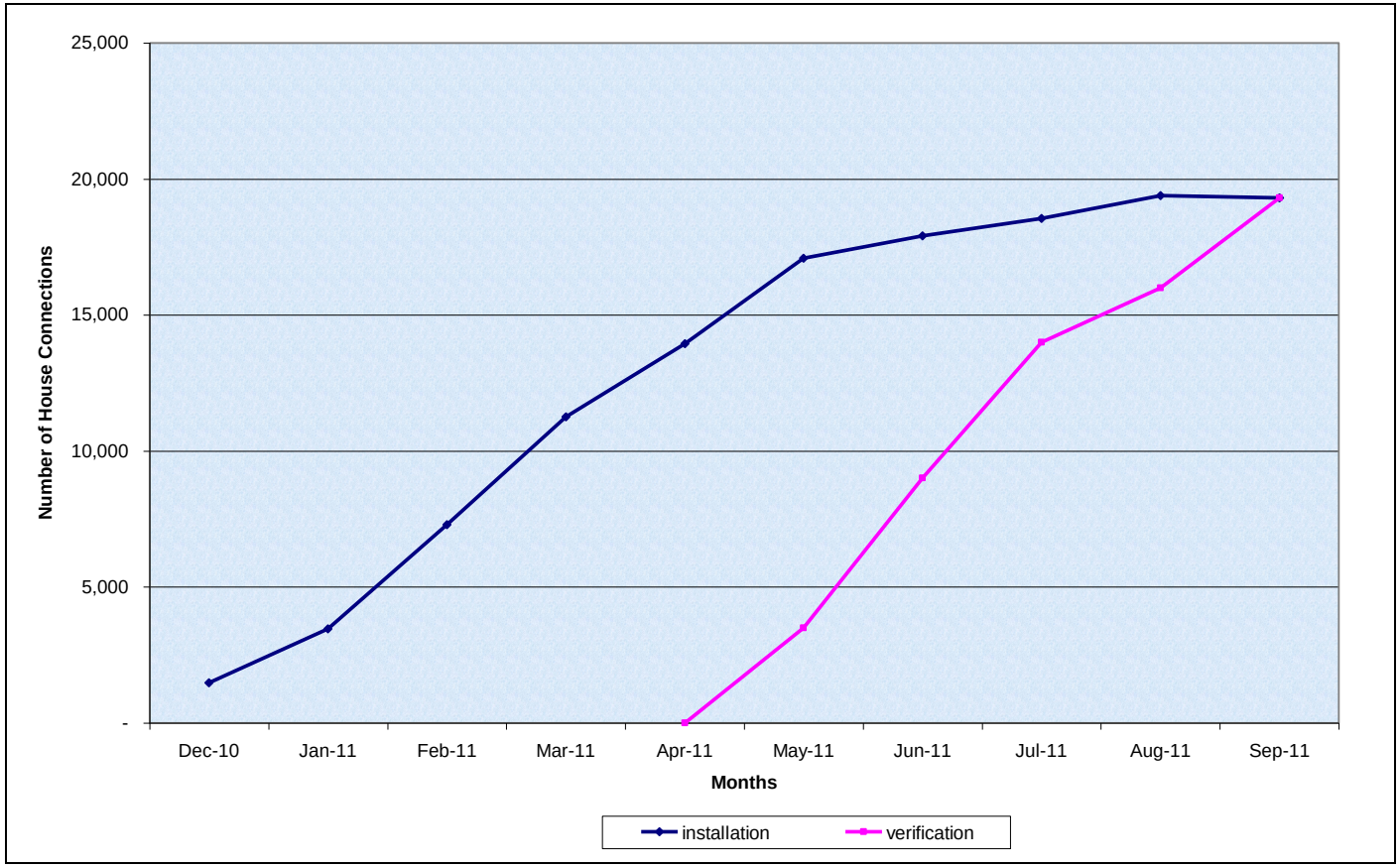
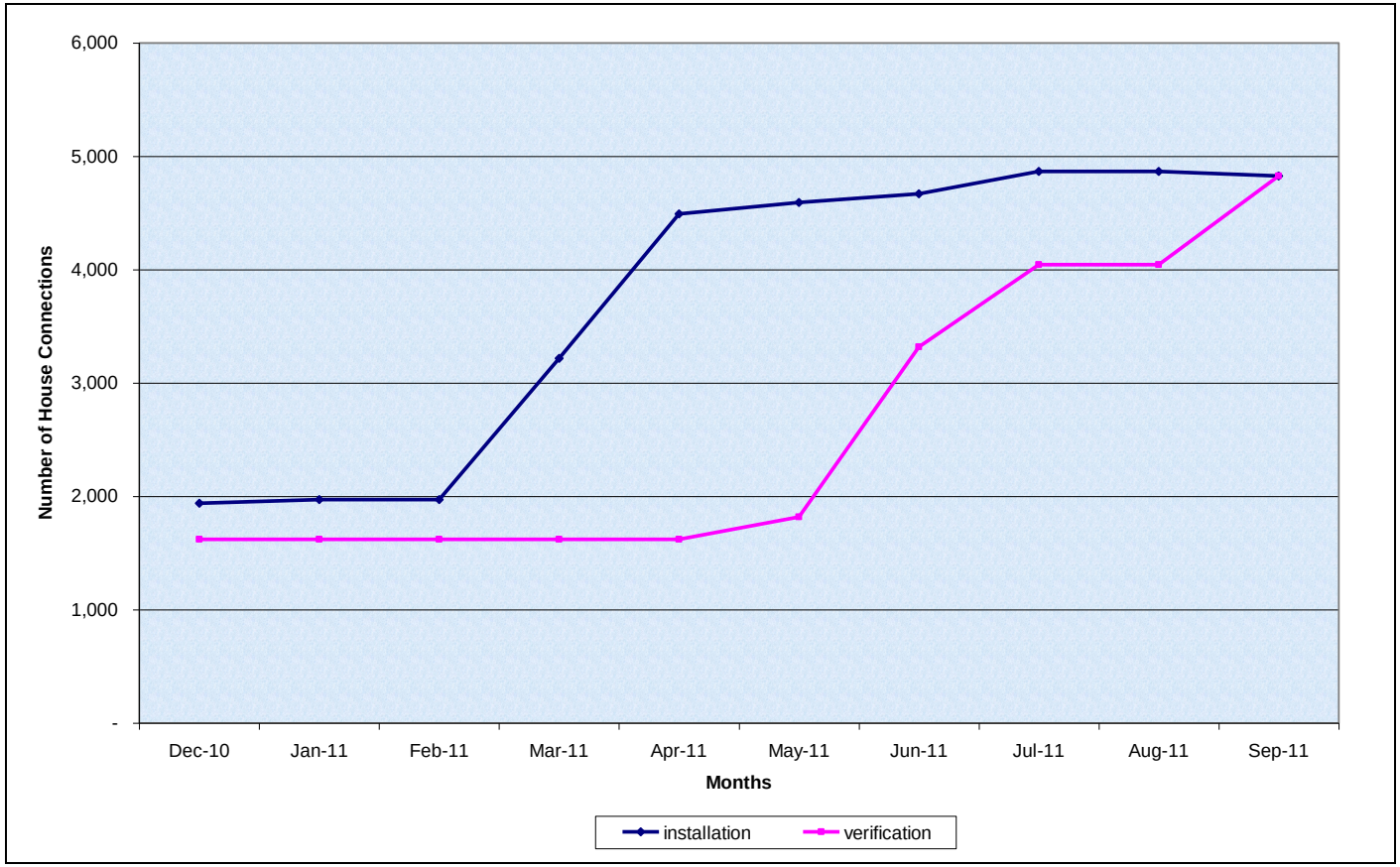


**Figure 6: Acceleration profiles of total sewerage HCs installation and verification progress of PDPALs batch-1 and batch-2**



# CHAPTER 1: INTRODUCTION

The Water and Sanitation (W&S) Hibah program was a component of the Water and Sanitation Initiative (WSI) of the Government of Australia (GoA), executed via the Indonesia Infrastructure Initiative (IndII) and funded by the Australian Agency for International Development (AusAID).

The W&S Hibah scheme aimed to support the installation of 70,000 new functioning water connections and 10,000 new functioning sewerage connections for poor households during the 2010 GoA fiscal year which ended on 30 June 2011.

On 3 November 2010, SMEC International Pty Ltd, on behalf of the Government of Australia (GoA), represented by the Australian Agency for International Development (AusAID), signed a Sub-Consultancy Agreement with PT Mitra Lingkungan Dutaconsult (MLD) for a Mid-term Review and Verification Survey for the Water and Sanitation Hibah. The contract concerned a first Batch of 25 local governments participating in the W&S Hibah program. Formally the contract started on 1 November 2010, with completion date of 30 June 2011. The kick-off meeting between IndII and the Consultant was held on 9 November 2010.

The verification survey was to determine the number of service connections eligible for financial compensation under the W&S Hibah scheme. The mid-term review established the progress made by local governments by the end of 2010 towards achievement of their targets for installation of service connections. Proposals for reallocation of targets were communicated to the GoI executive agency of the W&S Hibah program, the Directorate General of Human Settlements (DGHS)1 and IndII. On this basis DGHS and IndII agreed to additional allocations of service connections to be installed by a selected number of the local governments involved.

Early 2011 MLD received an extension of its contract with IndII for verification of service connections installed by the second batch of local governments, and for the establishment of a baseline survey and subsequent verification of service connections installed on the basis of additional allocations granted to Batch-1 and a couple of Batch-2 local governments. A further contract extension was granted to cover verification activities during the months of July and August 2011, when the deadline for the W&S Hibah program was shifted from 20 June to 31 August 2011.

This report is the Consolidated Report of the implementation and outcomes of the Mid-term Review and Verification Survey for the W&S Hibah program. The report covers respectively the Water and Sanitation Hibah scheme (Chapter 2), organisational arrangements for the execution of the assignment (Chapter 3), the baseline survey (Chapter 4), the verification process (Chapter 5), the progress review (Chapter 6), and the customer satisfaction survey (Chapters 7).

[1] Direktorat Jenderal Cipta Karya

# CHAPTER 2: WATER AND SANITATION HIBAH

## 2.1 OBJECTIVES AND TARGETS

The Water and Sanitation Hibah scheme was designed by the Government of Indonesia (GoI) in support of local governments and their PDAM/PDPAL to expand their public water services to primarily low-income households. The output-based design of the program builds on similar programs carried out in Surabaya, Jakarta and some other areas of Indonesia.

The primary objective is to increase service coverage and contribute to the achievement of the MDG target 7c: *"Reduce by half the proportion of people without sustainable access to safe drinking water and basic sanitation."* A secondary objective is to strengthen the financial position of the water utilities and to enhance the commitment of local governments for their PDAM/PDPAL and the public services provided to the populace.

The Water and Sanitation Initiative (WSI) of the Government of Australia strives for similar objectives:

- Expand access to water supply and sanitation services, particularly for the poor, women, and children in schools
- Make water and sanitation services more sustainable by supporting sector reform and capacity building
- Improve the health and quality of life of the poor and vulnerable by increasing their understanding of good hygiene practices, as well as by expanding their access to water supply and sanitation services
- Enhance aid effectiveness and complement other programs

AUD 30 million was made available for the implementation of a pilot of an output-based grant scheme to promote local government investment in water and wastewater services. The WSI funds support the installation of 70,000 new water connections and up to 10,000 new connections to sewerage systems or communal sanitation facilities. Assuming six persons per connection or household, some 420,000 persons would be served by the Water Hibah scheme and 60,000 by the Sanitation Hibah scheme. The deadline for these targets is June 30, 2011, the end of the GoA fiscal year.

## 2.2 FINANCIAL CONTRIBUTIONS OF LOCAL GOVERNMENTS

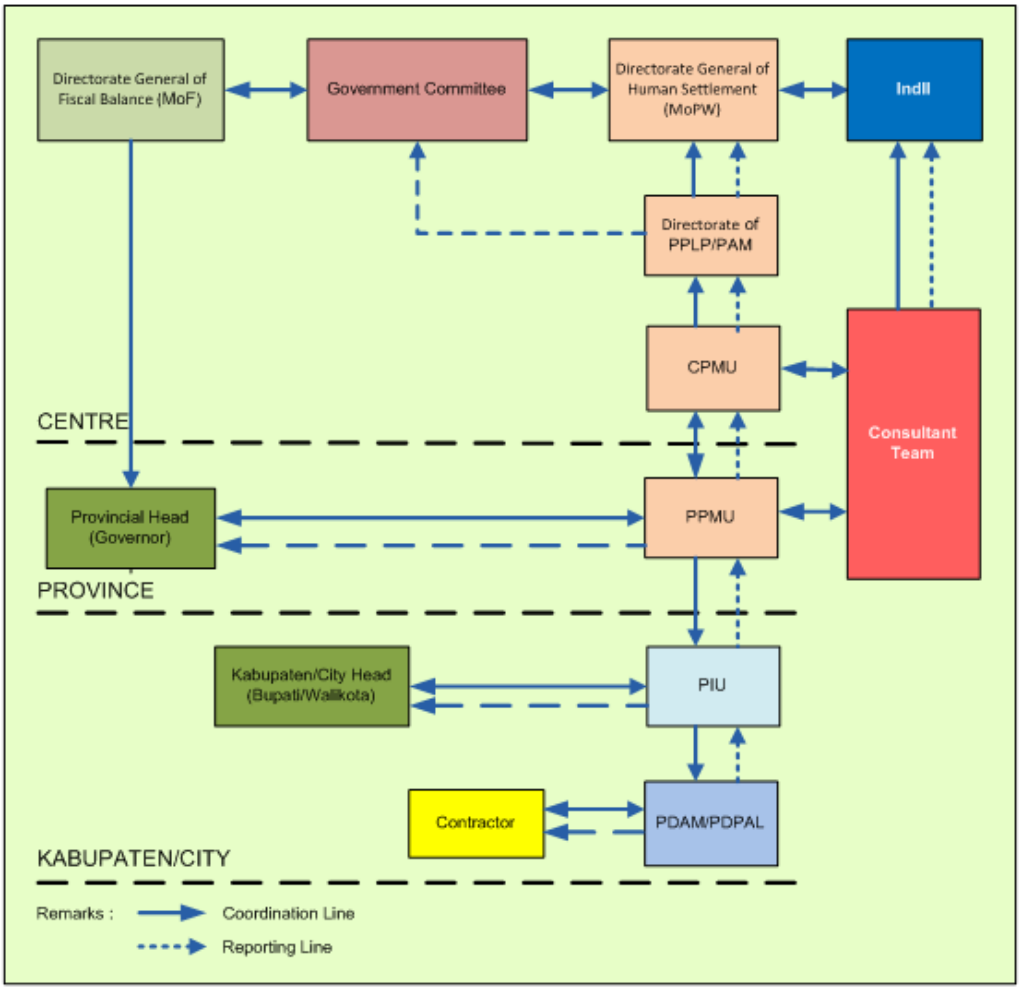
For water supply the grant amounts to IDR 2 million per connection for the first 1,000 connections and IDR 3 million subsequently; in case of sewerage connections, the W&S Hibah program contributes IDR 5 million per connection made. The W&S Hibah scheme is set-up under the assumption that the aggregate grant amount covers approximately 40percent of the incremental investment costs of new connections. The

calculation of the incremental costs takes into account investments for additional treatment, distribution and reticulation capacity, as well as the installation of the actual service connections. It is questionable whether the PDAM/PDPAL holds the same perspective. They may consider the Hibah funds only as a contribution for the service connection itself, and possibly reticulation pipes.

## 2.3 ORGANISATION STRUCTURE OF THE SCHEME

The organisation structure of the W&S Hibah program is shown in the figure below.

**Figure 7: Organisational structure of the W&S Hibah program**



## 2.4 ELIGIBILITY

Local governments interested to participate in the W&S Hibah program have to fulfil a number of criteria to determine eligibility. The executive agency of the program, the Directorate General of Human Settlements (DGHS) of the Ministry of Public Works (MoPW or PU), has issued a Water Hibah and a Sanitation Hibah Project Implementation Manual (PIM).[2] The PIM poses a number of criteria to the local government, as the recipient of the grant, and the ultimate beneficiary. In addition, the PIM specifies technical requirements for the service connections.

### 2.4.1 Criteria for the recipient of the grant, i.e. local government

On basis of the PIM, local governments participating in the W&S Hibah program have to fulfil the following criteria:

- The provincial, regional or municipal government and the PDAM/PDPAL do not have outstanding debt, or are involved in a program to restructure their outstanding debt.
- There is sufficient capacity to distribute water to new consumers.

The eligibility of local governments on basis of these criteria is supposed to be checked by DGHS and IndII during project preparation. Local governments and PDAM/PDPAL are required to declare that indeed their systems have idle capacity. The actual availability of idle capacity is checked during verification and examined during the customer satisfaction survey.

As part of the verification process, the proper functioning of a connection is checked. For practical reasons this has been interpreted as whether, at the time of verification, water is flowing from the tap installed next to the meter. In case there is no water, the PDAM is asked to indicate how many hours per day water is supplied to the immediate area of the service connection in question.

The customer satisfaction survey includes a number of (sets of) questions that provide indications about whether a PDAM/PDPAL and specific water systems indeed have idle capacity. Further details are provided in 0

[2] Pedoman pengelolaan program hibah air minum; pedoman pengelolaan program hibah air limbah

Customer satisfaction survey. In general, the issue of idle capacity is addressed in more detail in Section 5.3.1.

### 2.4.2 Beneficiary criteria

Beneficiaries of the W&S Hibah program have to meet the following criteria:

- Categorisation as low income[3] household as determined by the head of the region[4]
- Installed electrical power of ≤ 1,300 VA, while 50 percent of the targeted beneficiaries have installed electrical power of ≤ 900 VA
- Willingness and ability to meet the PDAM/PDPAL customer requirements

The MBR categorisation by the head of the region may be part of the identification of potential beneficiaries of the W&S Hibah program, i.e. the baseline study. The criterion of installed electrical power is checked as part of the technical verification of service connections.

The certificate of formal handover of a service connection from the PDAM or PDPAL to the consumer is collected as part of the verification process and is considered to substantiate the willingness of the consumer to connect to the public piped network. Proof of payment by the consumer of two monthly bills issued by the PDAM/PDPAL demonstrates the ability of the consumer to pay.

### 2.4.3 Technical criteria related to the service connection

Service connections funded by the W&S Hibah scheme need to fulfil the following criteria:

- Connection is made subsequent to conclusion of the on-granting agreement between the Ministry of Finance and local governments.
- The technical specifications of the service connection are in line with the quality standard in use by the PDAM, which should refer to the technical standard issued by the Ministry of Public Works (PU) and the national standards of Indonesia.[5]

[3] Masyarakat berpenghasilan rendah (MBR)
[4] Kabupaten: Bupati; Kota: Walikota
[5] Standar Nasional Indonesia (SNI)

The handing-over of the service connection from the PDAM to the new consumer takes place subsequent to signature of the on-granting agreement. The handing-over certificate is collected as part of the verification process. Information regarding the technical installation of service connections is compiled as part of the verification process as well.

### 2.4.4 Additional eligibility criteria

The PIM lists some additional requirements for participation in the W&S Hibah program:

- Availability of a list of potential beneficiaries
- Availability of an implementation document covering at least the value of the grant for the number of service connections to be installed per year
- Availability of a technical planning document, i.e. detailed engineering design (DED), for the service connections to be installed
- Readiness for verification and audit
- Availability of operational funds for related activities in the local governments receiving grants, including funding of the Project Implementation Unit (PIU)

The list of potential beneficiaries is prepared as part of the baseline study. In principle, the availability of the implementation and technical planning documents is checked by the Central Program Management Unit (CPMU) as the executive agency, DGHS, before agreeing to the eligibility of local governments for the W&S Hibah program.

## 2.5 BATCHES OF LOCAL GOVERNMENTS

### 2.5.1 First batch of 25 local governments

A first batch of 25 local governments committed themselves to the installation of 42,300 water and 2,600 sewerage connections under the AusAID-WSI Water and Sanitation (W&S) Hibah schemes. On-granting agreements[6] for this first batch were signed on May 5, 2010. An overview of the initial targets for service connections in the first batch of LGs is provided in the table below. The locations of the 25 Batch-1 LGs are mapped in **Annexe 1**.

**Table 6: Overview of the original targets for service connections of the first batch of 25 local governments**

[6] Naskah Perjanjian Penerusan Hibah (NPPH)

| Sub-sector | Region | Province | Local Government | No | House Connections |
|---|---|---|---|---|---|
| **Water** | **Jakarta** | South Sumatra | Kota Palembang | 1 | 4,000 |
| **Supply** | | Banten | Kab. Serang | 2 | 2,000 |
| | | West Java | Kab. Ciamis | 3 | 3,000 |
| | | West Java | Kab. Karawang | 4 | 3,000 |
| | | West Java | Kab. Kuningan | 5 | 2,650 |
| | | West Java | Kab. Bogor | 6 | 3,500 |
| | | West Java | Kota Bogor | 7 | 1,000 |
| | | West Java | Kab. Garut | 8 | 2,650 |
| | *Sub-total* | | | | *21,800* |
| | **Jogjakarta** | Central Java | Kab. Wonosobo | 9 | 2,500 |
| | | Central Java | Kab. Wonogiri | 10 | 2,000 |
| | | Central Java | Kab. Klaten | 11 | 3,000 |
| | | Central Java | Kab. Cilacap | 12 | 1,300 |
| | | Central Java | Kab. Boyolali | 13 | 1,150 |
| | | Central Java | Kab. Kudus | 14 | 1,000 |
| | | Central Java | Kota Pekalongan | 15 | 500 |
| | *Sub-total* | | | | *11,450* |
| | **Surabaya** | East Java | Kab. Bangkalan | 16 | 1,100 |
| | | East Java | Kab. Jombang | 17 | 1,200 |
| | | East Java | Kota Malang | 18 | 2,000 |
| | | West Nusa Tenggara | Kab. East Lombok | 19 | 500 |

| Sub-sector | Region | Province | Local Government | No | House Connections |
|---|---|---|---|---|---|
| | *Sub-total* | | | | *4,800* |
| | **Banjarmasin** | South Kalimantan | Kab. Banjar | 20 | 2,000 |
| | | South Kalimantan | Kota Banjarbaru | 21 | 1,500 |
| | | Central Kalimantan | Kota Palangkaraya | 22 | 750 |
| | *Sub-total* | | | | *4,250* |
| ***Total*** | | | | | ***42,300*** |
| **Sewerage** | **Jogjakarta** | Central Java | Kota Surakarta | 23 | 400 |
| | *Sub-total* | | | | *400* |
| | **Banjarmasin** | South Kalimantan | Kota Banjarmasin | 24 | 2,000 |
| | | East Kalimantan | Kota Balikpapan | 25 | 200 |
| | *Sub-total* | | | | *2,200* |
| ***Total*** | | | | | ***2,600*** |
| **Grand Total** | | | | | **44,900** |

### 2.5.2 Second batch of 15 local governments

A second batch of 15 local governments committed themselves to the installation of 16,700 water and 2,000 sewerage connections under the AusAID-WSI Water and Sanitation (W&S) Hibah schemes. On-granting agreements[7] for this second batch were signed on 2 September 2010. An overview of the initial targets for service connections in the second batch of LGs is provided in the table below. The locations of the 15 Batch-2 LGs are mapped in **Annexe 2**.

[7] Naskah Perjanjian Penerusan Hibah (NPPH)

**Table 7: Overview of the original targets for service connections of the second batch of 15 local governments**

| Sub-sector | Region | Province | Local Government | No | House Connections |
|---|---|---|---|---|---|
| **Water Supply** | **West** | West Sumatra | Kota Padang | 1 | 1,500 |
| | | South Sumatra | Kab. Muara Enim | 2 | 1,000 |
| | | Lampung | Kab. Lampung Utara | 3 | 700 |
| | | Banten | Kab. Pandeglang | 4 | 1,000 |
| | | West Java | Kab. Cianjur | 5 | 1,000 |
| | | Central Java | Kab. Sukoharjo | 6 | 1,000 |
| | *Sub-total* | | | | *6,200* |
| | **East** | East Java | Kab. Sidoarjo | 7 | 3,000 |
| | | East Java | Kab. Situbondo | 8 | 1,000 |
| | | West Kalimantan | Kab. Kapuas | 9 | 500 |
| | | South Kalimantan | Kota Banjarmasin | 10 | 3,500 |
| | | East Kalimantan | Kota Balikpapan | 11 | 1,000 |
| | | Central Sulawesi | Kab. Donggala | 12 | 1,000 |
| | | Papua | Kota Jayapura | 13 | 500 |
| | *Sub-total* | | | | *10,500* |
| ***Total*** | | | | | ***16,700*** |
| **Sewerage** | **West** | DKI Jakarta | DKI Jakarta | 14 | 500 |
| | | West Java | Kota Bandung | 15 | 1,500 |
| | *Sub-total* | | | | *2,000* |
| ***Total*** | | | | | ***2,000*** |
| **Grand Total** | | | | | **18,700** |

## 2.6 BASELINE SURVEY

A baseline survey is carried out in the local governments selected to participate in the W&S Hibah program. The baseline survey aims to identify low-income households interested to connect to the public water supply systems of the PDAM with idle capacity (or to the public sewerage system of the PDPAL) at favourable financial conditions. The participation of the PDAM/PDPAL in the W&S Hibah program allows the water utilities to offer special connection fees to prospective customers. Connections could even be offered for free.

The water and sanitation baseline survey for the first and the second batches of local governments was carried out by another consultant, Mott MacDonald Indonesia (MMD), under a separate contract. The baseline survey for the additional allocations of house connections was incorporated in the extension of the consultancy contract granted to MLD.

## 2.7 PROGRESS REVIEW & ADDITIONAL ALLOCATIONS OF SERVICE CONNECTIONS

The progress review carried out at the end of the calendar year 2010 resulted in recommendations for additional (and reduced) targets for service connections to be installed by PDAM/PDPAL. In coordination with local governments and PDAM/PDPAL, DGHS and IndII decided on additional allocations as indicated in the tables below. On-granting agreements (NPPH) for the additional allocations of house connections were formalised on 9 February 2011. Although no verification of the second batch local governments had taken place yet, DGHS and IndII still decided to increase the allocations for a couple local governments: PDAM Kabupaten Sidoarjo and PDAM Kota Banjarmasin.

**Table 8: Overview of the additional targets for service connections of the first batch of 25 local governments**

| Sub-Sector | Region | Province | Local Government | | No | House Connections | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Initial | Addition | Total |
| **Water** | **Jakarta** | South Sumatra | Kota | Palembang | 1 | 4,000 | 1,000 | 5,000 |
| **Supply** | | Banten | Kab. | Serang | 2 | 2,000 | 2,000 | 4,000 |
| | | West Java | Kab. | Ciamis | 3 | 3,000 | | 3,000 |
| | | West Java | Kab. | Karawang | 4 | 3,000 | 1,000 | 4,000 |
| | | West Java | Kab. | Kuningan | 5 | 2,650 | 2,000 | 4,650 |
| | | West Java | Kab. | Bogor | 6 | 3,500 | 1,000 | 4,500 |

| Sub-Sector | Region | Province | Local Government | | No | House Connections | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Initial | Addition | Total |
| | | West Java | Kota | Bogor | 7 | 1,000 | 1,000 | 2,000 |
| | | West Java | Kab. | Garut | 8 | 2,650 | 1,000 | 3,650 |
| | *Sub-total* | | | | | *21,800* | *9,000* | *30,800* |
| | **Jogjakarta** | Central Java | Kab. | Wonosobo | 9 | 2,500 | 2,500 | 5,000 |
| | | Central Java | Kab. | Wonogiri | 10 | 2,000 | | 2,000 |
| | | Central Java | Kab. | Klaten | 11 | 3,000 | | 3,000 |
| | | Central Java | Kab. | Cilacap | 12 | 1,300 | | 1,300 |
| | | Central Java | Kab. | Boyolali | 13 | 1,150 | | 1,150 |
| | | Central Java | Kab. | Kudus | 14 | 1,000 | | 1,000 |
| | | Central Java | Kota | Pekalongan | 15 | 500 | | 500 |
| | *Sub-total* | | | | | *11,450* | *2,500* | *13,950* |
| | **Surabaya** | East Java | Kab. | Bangkalan | 16 | 1,100 | | 1,100 |
| | | East Java | Kab. | Jombang | 17 | 1,200 | | 1,200 |
| | | East Java | Kota | Malang | 18 | 2,000 | 2,000 | 4,000 |
| | | West Nusa Tenggara | Kab. | East Lombok | 19 | 500 | | 500 |
| | *Sub-total* | | | | | *4,800* | *2,000* | *6,800* |
| | **Banjarmasin** | South Kalimantan | Kab. | Banjar | 20 | 2,000 | | 2,000 |
| | | South Kalimantan | Kota | Banjarbaru | 21 | 1,500 | | 1,500 |
| | | Central Kalimantan | Kota | Palangkaraya | 22 | 750 | | 750 |
| | *Sub-total* | | | | | *4,250* | *0* | *4,250* |

| Sub-Sector | Region | Province | Local Government | | No | House Connections | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Initial | Addition | Total |
| ***Total*** | | | | | | ***42,300*** | ***13,500*** | ***55,800*** |
| **Sewerage** | **Jogjakarta** | Central Java | Kota | Surakarta | 23 | 400 | 400 | 800 |
| | *Sub-total* | | | | | *400* | *400* | *800* |
| | **Banjarmasin** | South Kalimantan | Kota | Banjarmasin | 24 | 2,000 | 2,000 | 4,000 |
| | | East Kalimantan | Kota | Balikpapan | 25 | 200 | | 200 |
| | *Sub-total* | | | | | *2,200* | *2,000* | *4,200* |
| ***Total*** | | | | | | ***2,600*** | ***2,400*** | ***5,000*** |
| **Grand Total** | | | | | | **44,900** | **15,900** | **60,800** |

**Table 9: Overview of the additional targets for service connections of the second batch of 15 local governments**

| Sub-Sector | Region | Province | Local Government | | No | Connections | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | initial | addition | total |
| **Water Supply** | **West** | West Sumatra | Kota | Padang | 1 | 1,500 | | 1,500 |
| | | South Sumatra | Kab. | Muara Enim | 2 | 1,000 | | 1,000 |
| | | Lampung | Kab. | Lampung Utara | 3 | 700 | | 700 |
| | | Banten | Kab. | Pandeglang | 4 | 1,000 | | 1,000 |
| | | West Java | Kab. | Cianjur | 5 | 1,000 | | 1,000 |
| | | Central Java | Kab. | Sukoharjo | 6 | 1,000 | | 1,000 |
| | *Sub-total* | | | | | *6,200* | *0* | *6,200* |
| | **East** | East Java | Kab. | Sidoarjo | 7 | 3,000 | 2,000 | 5,000 |

| Sub-Sector | Region | Province | Local Government | | No | Connections | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | initial | addition | total |
| | | East Java | Kab. | Situbondo | 8 | 1,000 | | 1,000 |
| | | West Kalimantan | Kab. | Kapuas | 9 | 500 | | 500 |
| | | South Kalimantan | Kota | Banjarmasin | 10 | 3,500 | 1,500 | 5,000 |
| | | East Kalimantan | Kota | Balikpapan | 11 | 1,000 | | 1,000 |
| | | Central Sulawesi | Kab. | Donggala | 12 | 1,000 | | 1,000 |
| | | Papua | Kota | Jayapura | 13 | 500 | | 500 |
| | *Sub-total* | | | | | *10,500* | *3,500* | *14,000* |
| ***Total*** | | | | | | ***16,700*** | ***3,500*** | ***20,200*** |
| **Sewerage** | **West** | DKI Jakarta | DKI | Jakarta | 14 | 500 | | 500 |
| | | West Java | Kota | Bandung | 15 | 1,500 | | 1,500 |
| | *Sub-total* | | | | | *2,000* | *0* | *2,000* |
| ***Total*** | | | | | | ***2,000*** | ***0*** | ***2,000*** |
| **Grand Total** | | | | | | **18,700** | **3,500** | **22,200** |

## 2.8 JUNE 2011 REALLOCATION OF TARGETS FOR SERVICE CONNECTIONS

In June 2011 DGHS and IndII agreed to a final reallocation of targets for water supply and sewerage service connections based on indications of progress made at the time. The result of this reallocation is indicated for respectively Batch-1 and Batch-2 local governments in the tables below.

**Table 10: Overview of reallocation of targets for service connections of the first batch of 25 local governments**

| Sub-sector | Region | Local Government | | No | House Connections | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Initial | Addition | Reallocation | Total |
| **Water Supply** | **Jakarta** | Kota | Palembang | 1 | 4,000 | 1,000 | 1,000 | 6,000 |
| | | Kab. | Serang | 2 | 2,000 | 2,000 | | 4,000 |
| | | Kab. | Ciamis | 3 | 3,000 | | -1,500 | 1,500 |
| | | Kab. | Karawang | 4 | 3,000 | 1,000 | 1,000 | 5,000 |
| | | Kab. | Kuningan | 5 | 2,650 | 2,000 | 500 | 5,150 |
| | | Kab. | Bogor | 6 | 3,500 | 1,000 | | 4,500 |
| | | Kota | Bogor | 7 | 1,000 | 1,000 | | 2,000 |
| | | Kab. | Garut | 8 | 2,650 | 1,000 | | 3,650 |
| | *Sub-total* | | | | *21,800* | *9,000* | *1,000* | *31,800* |
| | **Jogjakarta** | Kab. | Wonosobo | 9 | 2,500 | 2,500 | | 5,000 |
| | | Kab. | Wonogiri | 10 | 2,000 | | | 2,000 |
| | | Kab. | Klaten | 11 | 3,000 | | | 3,000 |
| | | Kab. | Cilacap | 12 | 1,300 | | | 1,300 |
| | | Kab. | Boyolali | 13 | 1,150 | | | 1,150 |
| | | Kab. | Kudus | 14 | 1,000 | | | 1,000 |
| | | Kota | Pekalongan | 15 | 500 | | | 500 |
| | *Sub-total* | | | | *11,450* | *2,500* | *0* | *13,950* |
| | **Surabaya** | Kab. | Bangkalan | 16 | 1,100 | | | 1,100 |
| | | Kab. | Jombang | 17 | 1,200 | | | 1,200 |
| | | Kota | Malang | 18 | 2,000 | 2,000 | | 4,000 |

| Sub-sector | Region | Local Government | | No | House Connections | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Initial | Addition | Reallocation | Total |
| | | Kab. | East Lombok | 19 | 500 | | | 500 |
| | *Sub-total* | | | | *4,800* | *2,000* | *0* | *6,800* |
| | **Banjarmasin** | Kab. | Banjar | 20 | 2,000 | | | 2,000 |
| | | Kota | Banjarbaru | 21 | 1,500 | | | 1,500 |
| | | Kota | Palangkaraya | 22 | 750 | | | 750 |
| | *Sub-total* | | | | *4,250* | *0* | *0* | *4,250* |
| ***Total*** | | | | | ***42,300*** | ***13,500*** | ***1,000*** | ***56,800*** |
| **Sewerage** | **Jogjakarta** | Kota | Surakarta | 23 | 400 | 400 | | 800 |
| | *Sub-total* | | | | *400* | *400* | *0* | *800* |
| | **Banjarmasin** | Kota | Banjarmasin | 24 | 2,000 | 2,000 | -2,000 | 2,000 |
| | | Kota | Balikpapan | 25 | 200 | | | 200 |
| | *Sub-total* | | | | *2,200* | *2,000* | *-2,000* | *2,200* |
| ***Total*** | | | | | ***2,600*** | ***2,400*** | ***-2,000*** | ***3,000*** |
| **Grand Total** | | | | | **44,900** | **15,900** | **-1,000** | **59,800** |

**Table 11: Overview of reallocation of targets for service connections of the second batch of 15 local governments**

| Sub-sector | Region | Local Government | | No | Connections | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Initial | Addition | Reallocation | Total |
| **Water Supply** | **West** | Kota | Padang | 1 | 1,500 | | | 1,500 |
| | | Kab. | Muara Enim | 2 | 1,000 | | 500 | 1,500 |
| | | Kab. | Lampung Utara | 3 | 700 | | | 700 |
| | | Kab. | Pandeglang | 4 | 1,000 | | | 1,000 |
| | | Kab. | Cianjur | 5 | 1,000 | | | 1,000 |
| | | Kab. | Sukoharjo | 6 | 1,000 | | | 1,000 |
| | *Sub-total* | | | | *6,200* | *0* | | *6,200* |
| | **East** | Kab. | Sidoarjo | 7 | 3,000 | 2,000 | | 5,000 |
| | | Kab. | Situbondo | 8 | 1,000 | | -1,000 | 0 |
| | | Kab. | Kapuas | 9 | 500 | | 500 | 1,000 |
| | | Kota | Banjarmasin | 10 | 3,500 | 1,500 | | 5,000 |
| | | Kota | Balikpapan | 11 | 1,000 | | | 1,000 |
| | | Kab. | Donggala | 12 | 1,000 | | | 1,000 |
| | | Kota | Jayapura | 13 | 500 | | | 500 |
| | *Sub-total* | | | | *10,500* | *3,500* | *-500* | *13,500* |
| ***Total*** | | | | | ***16,700*** | ***3,500*** | ***0*** | ***20,200*** |
| **Sewerage** | **West** | DKI | Jakarta | 14 | 500 | | | 500 |
| | | Kota | Bandung | 15 | 1,500 | | | 1,500 |
| | *Sub-total* | | | | *2,000* | *0* | *0* | *2,000* |
| ***Total*** | | | | | ***2,000*** | ***0*** | ***0*** | ***2,000*** |
| **Grand Total** | | | | | **18,700** | **3,500** | **0** | **22,200** |

## 2.9 REIMBURSEMENT

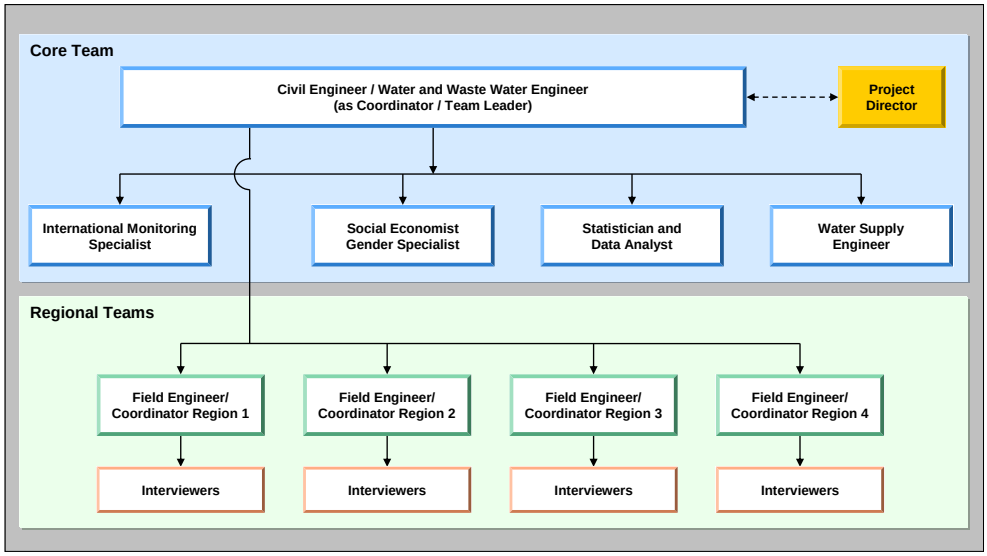
In addition to compliance with the technical requirements verified under the MLD contract for consultancy services, in order to actually transfer grant funds from central to local governments, the Directorate General of Fiscal Balance of the Ministry of Finance (MoF) required compliance of local governments with a series of administrative requirements. The local governments were required to provide the following documents and information to MoF:

- Letter requesting of hibah disbursement *(Surat Permintaan Penyaluran Hibah, SPPH)*
- Letter certifying acceptance of full responsibility *(Surat Pernyataan Tanggung Jawab Mutlak, SPTJM)*
- Grant application plan *(Rencana Penggunaan Hibah, RPH)*
- Local Government regulation on equity provision to PDAM/PDPAL *(Peraturan Dearah tentang Penyertaan Modal Pemerintah [PMP] kepada PDAM/PDPAL)*;
- Copies of DPA, SPM & SP2D re PMP to PDAM/PDPAL *(Salinan Daftar Pelaksanaan Anggaran, Surat Perintah Membayar & Surat Perintah Pencairan Dana atas Penyertaan Modal Pemerintah Daerah kepada PDAM/PDPAL)*
- LG current account (RKUD): name, name of bank, current account number
- Proof of documentation from the bank of the opening of the current account *(salinan bukti pembukaan rekening koran/RKUD yang menunjukkan nomor dan nama rekening)*

# CHAPTER 3: ORGANISATIONAL ARRANGEMENTS

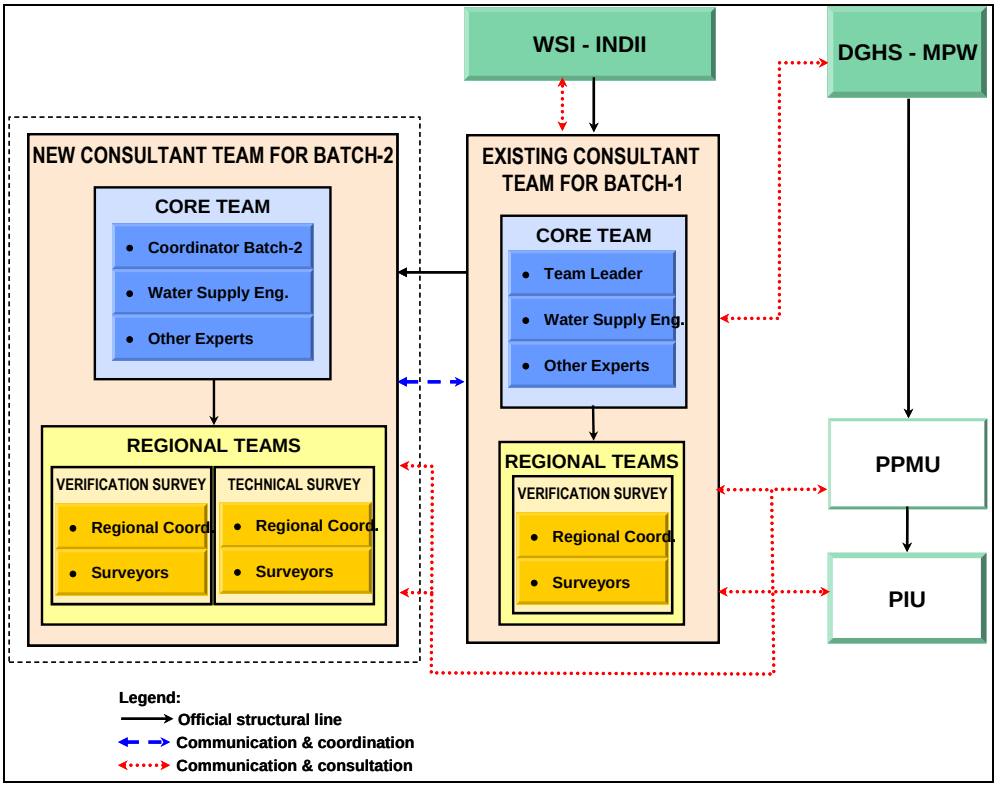
The organisational structure of the Consultant contracted by IndII for the mid-term review and the verification survey of the first batch of 25 local governments participating in the W&S Hibah program is shown in the figure below.

**Figure 8: Organisational structure of the Consultant based on the initial contract with IndII**




When the Consultant was granted a contract extension for the verification of the installation of house connections in batch-2 local governments, as well as the baseline survey for the additional allocations of service connections, a somewhat different organisational arrangement was chosen, partially to be able to be more responsive to the larger geographical spread of the batch-2 local governments. East and west regional teams were established for the verification of house connections in batch-2 LGs and the baseline survey of additional allocations. Baseline and verification teams were generally kept separated, although individual team members have shifted from the baseline team to the verification team. The organisational structure of the Consultant subsequent to the contract extension is indicated in the following figure.

**Figure 9: Organisational structure of the Consultant subsequent to contract extension**




## 3.1 CORE TEAM

The core team, also called the "home base" consisted of the team leader, the IndII liaison person, the water supply engineer, the social-economist, the statistician and the international monitoring specialist. The coordinator/team Leader was responsible for the overall management and coordination of the project. His main task was to ensure all activities were scheduled in a feasible, flexible and responsive manner, while achieving reasonable, set and agreed deadlines.

The role of the core team was to ensure that uniform methodology and procedures were applied by all regional field staff, i.e. regional coordinators and enumerators. This included the preparation of uniform presentation materials and other aids. The regional coordinators received guidance for their meetings with the heads of local government – walikota and bupati – and senior government officials at local and provincial government level.

In order to ensure adequate liaison between the Consultant and IndII and DGHS, it was agreed during contract negotiations to appoint a special liaison person.[8] The liaison person regularly worked at the IndII office.

The water and wastewater engineer was involved with the quality assurance of the verification process. Qualitative information was collected regarding public water supply conditions in participating local governments. PDAMs were consulted about their standards and procedures for new connections, available excess production capacity, and the level of service provided, i.e. coverage, continuity, pressure, and water quality.

The social-economist and gender specialist was closely involved with the analysis of the customer satisfaction survey for which 15percent of the 45,000 tentatively eligible connections of the batch 1 local governments were randomly selected, amounting to about 7,000 water or sewerage connections. For batch 2 local governments a similar procedure was followed.

The statistician and data analyst ensured that verification data were compiled in a database and data analysis was carried out as per requirements of IndII, DGHS and local governments, but also for internal quality assurance purposes and analysis.

The monitoring specialist assisted the coordinator/team leader with overall coordination of the project, quality assurance, data analysis and reporting.

## 3.2 REGIONAL FIELD TEAMS, BATCH-1 LGS

The team leader ensured adequate oversight and management of the field consultant teams. Four field engineers/regional coordinators were appointed and had full responsibility for the coordination of the field activities in their respective regions. The regional coordinators recruited and trained local surveyors and interviewers to execute verification and customer satisfaction surveys. Depending on the actual workload at any time during the project the core team and the regional coordinators decided in mutual cooperation to involve more or less field staffs.

The areas initially covered by the regional teams were synchronised with the spatial arrangements made by the consultant for the baseline study of the first batch of local governments. Regional coordinators operated from Jakarta, Jogjakarta, Surabaya and Banjarmasin. With respect to the batch-1 local governments and related initial commitments for connections, the following table provides an overview of the distribution of workload per region.

[8] Not indicated in Figure 8 and Figure 9.

**Table 12: Overview of batch-1 local governments per region**

| Sub-sector | Province | Region Jakarta | Province | Region Jogjakarta |
|---|---|---|---|---|
| **Water Supply** | South Sumatra | KotaPalembang | Central Java | Kab. Wonosobo |
| | Banten | Kab.Serang | Central Java | Kab. Wonogiri |
| | West Java | Kab.Ciamis | Central Java | Kab. Klaten |
| | West Java | Kab.Karawang | Central Java | Kab. Cilacap |
| | West Java | Kab.Kuningan | Central Java | Kab. Boyolali |
| | West Java | Kab.Bogor | Central Java | Kab. Kudus |
| | West Java | KotaBogor | Central Java | Kota Pekalongan |
| | West Java | Kab.Garut | | |
| **Sewerage** | | | Central Java | Kota Surakarta |

**Table 13: Overview of batch-1 local governments per region *(continued)***

| Sub-sector | Province | Region Surabaya | Province | Region Banjarmasin |
|---|---|---|---|---|
| **Water Supply** | East Java | Kab. Bangkalan | South Kalimantan | Kab. Banjar |
| | East Java | Kab. Jombang | South Kalimantan | Kota Banjarbaru |
| | East Java | Kota Malang | Central Kalimantan | Kota Palangkaraya |
| | West Nusa Tenggara | Kab. East Lombok | | |
| **Sewerage** | | | South Kalimantan | Kota Banjarmasin |
| | | | East Kalimantan | Kota Balikpapan |

## 3.3 REGIONAL FIELD TEAMS, BATCH-2 LGS

As additional local governments joined the program, working arrangements were adjusted. The batch-2 local governments were divided over a West and an East region, each headed by a newly contracted regional coordinator as indicated in the table below. Arrangements were kept flexible in order to be able to respond more adequately to field developments.

**Table 14: Overview of the batch-2 local governments per region**

| Sub-sector | Province | West Region | Province | East Region |
|---|---|---|---|---|
| **Water** | West Sumatra | Kota Padang | East Java | Kab. Sidoarjo |
| **Supply** | South Sumatra | Kab. Muara Enim | East Java | Kab. Situbondo |
| | Lampung | Kab. Lampung Utara | West Kalimantan | Kab. Kapuas |
| | Banten | Kab. Pandeglang | South Kalimantan | Kota Banjarmasin |
| | West Java | Kab. Cianjur | East Kalimantan | Kota Balikpapan |
| | Central Java | Kab. Sukoharjo | Central Sulawesi | Kab. Donggala |
| | | | Papua | Kota Jayapura |
| **Sewerage** | DKI Jakarta | DKI Jakarta | | |
| | West Java | Kota Bandung | | |

Batch-2 local governments were subjected to verification of installed service connections and related customer satisfaction surveys, more or less in the same manner batch-1 local governments were. However, the efficiency of the work could be increased based on lessons learned from the verification of batch-1 LGs.

Also teams were established to take care of the customer satisfaction survey in the batch-2 LGs.

## 3.4 REGIONAL FIELD TEAMS, ADDITIONAL ALLOCATIONS

The assignment to carry out the baseline survey for the additional allocations of house connections granted to primarily batch-1 LGs and a couple batch-2 LGs, specialised survey teams were contracted, who worked closely together with the PDAMs to prepare documented lists of eligible households.

## 3.5 LOGISTICS

To support the Consultant's team with the implementation of the verification surveys, the following logistics/equipment were made available to the home base team and the regional teams active in the batch-1 LGs:

- Office space for the home base staff and rented office space for the four regional team; the regional offices are rented on a monthly basis and moveable from one kabupaten to another depending on the actual locations of ongoing field verifications
- Four cars (rented one for each region)
- Motorcycles (only rented for special case, i.e. when the sites of field visits are not accessible by cars)
- Cameras (stored at the home base office and used in the field whenever necessary)
- Computers and printers (printers are only available at the home base office)

In case of the teams that were active in batch-2 LGs, arrangements have been made on the basis of lump sum. Regional coordinators were contracted with the responsibility to arrange for means of transportation and office equipment as necessary for effective and efficient operations of the field survey teams under their control.

## 3.6 WORK PLAN

The initial work plan that was submitted as part of the Inception Report on 3 December 2010 is attached as **Annexe 3**. At the time, the assignment of the Consultant only covered the mid-term review of the progress of the Water and Sanitation Hibah program and the verification of the installation of 44,900 house connections for water supply and wastewater in 25 batch-1 local governments.

# CHAPTER 4: BASELINE SURVEY

## 4.1 BATCH 1 AND 2 LOCAL GOVERNMENTS: ORIGINAL ALLOCATIONS OF SERVICE CONNECTIONS

According to the project implementation manual (PIM) for the W&S Hibah program, the baseline survey aims to determine the locations of potential beneficiaries of the program and to establish their socio-economic conditions. The baseline survey should also determine the service level provided by the public water utility.

The baseline survey for the initial allocations of service connections to the first and second batches of local governments participating in the W&S Hibah program was prepared under a separate contract. Some, but not all, of the surveys covered a general inventory of the water sources used by the PDAM as a way to establish idle capacity. The baseline survey did not measure daily pressure fluctuations at critical locations in the water supply system.

The consultant contracted for the baseline surveys of batch 1 and 2 local governments [9] did not in all cases cooperate closely with the PDAM/PDPAL. Consequently, the actual use by the PDAM/PDPAL of the data collected and the lists of potential customers has not been optimal in a number of cases. Inconsistencies in the numbering of potential PDAM/PDPAL customers have been encountered. In a substantial number of cases, PDAM/PDPAL have relied on their own numbering of customers, instead of the numbering used by the baseline consultant.

In general the quality of the baseline surveys of batch-2 LGs was better than those of batch-1 LGs. This is likely due to a learning curve effect experienced by the consultant appointed for the baseline studies. Overviews of the numbers of potential beneficiaries identified per local government by the baseline consultant versus the targets for new service connections are provided in the tables below.

**Table 15: Overview of the baseline studies for the original allocations of connections for batch-1 LGs**

| Sub-sector | Region | Province | Local Government | | No | Baseline Studies | |
|---|---|---|---|---|---|---|---|
| | | | | | | Target | Potential |
| **Water** | **Jakarta** | South Sumatra | Kota | Palembang | 1 | 4,000 | 4,958 |
| **Supply** | | Banten | Kab. | Serang | 2 | 2,000 | 2,430 |
| | | West Java | Kab. | Ciamis | 3 | 3,000 | 3,800 |

[9] Mott MacDonald International (MMI)

| Sub-sector | Region | Province | Local Government | | No | Baseline Studies | |
|---|---|---|---|---|---|---|---|
| | | | | | | Target | Potential |
| | | West Java | Kab. | Karawang | 4 | 3,000 | 3,212 |
| | | West Java | Kab. | Kuningan | 5 | 2,650 | 3,201 |
| | | West Java | Kab. | Bogor | 6 | 3,500 | 4,199 |
| | | West Java | Kota | Bogor | 7 | 1,000 | 1,278 |
| | | West Java | Kab. | Garut | 8 | 2,650 | 3,244 |
| | *Sub-total* | | | | | *21,800* | *26,322* |
| | **Jogjakarta** | Central Java | Kab. | Wonosobo | 9 | 2,500 | 3,192 |
| | | Central Java | Kab. | Wonogiri | 10 | 2,000 | 2,377 |
| | | Central Java | Kab. | Klaten | 11 | 3,000 | 4,182 |
| | | Central Java | Kab. | Cilacap | 12 | 1,300 | 1,595 |
| | | Central Java | Kab. | Boyolali | 13 | 1,150 | 1,191 |
| | | Central Java | Kab. | Kudus | 14 | 1,000 | 974 |
| | | Central Java | Kota | Pekalongan | 15 | 500 | 540 |
| | *Sub-total* | | | | | *11,450* | *14,051* |
| | **Surabaya** | East Java | Kab. | Bangkalan | 16 | 1,100 | 1,008 |
| | | East Java | Kab. | Jombang | 17 | 1,200 | 1,248 |
| | | East Java | Kota | Malang | 18 | 2,000 | 1,683 |
| | | West Nusa Tenggara | Kab. | East Lombok | 19 | 500 | 600 |
| | *Sub-total* | | | | | *4,800* | *4,539* |
| | **Banjarmasin** | South Kalimantan | Kab. | Banjar | 20 | 2,000 | 2,600 |
| | | South Kalimantan | Kota | Banjarbaru | 21 | 1,500 | 1,900 |
| | | Central Kalimantan | Kota | Palangkaraya | 22 | 750 | 900 |

| Sub-sector | Region | Province | Local Government | | No | Baseline Studies | |
|---|---|---|---|---|---|---|---|
| | | | | | | Target | Potential |
| | *Sub-total* | | | | | *4,250* | *5,400* |
| ***Total*** | | | | | | ***42,300*** | ***50,312*** |
| **Sewerage** | **Jogjakarta** | Central Java | Kota | Surakarta | 23 | 400 | 1,101 |
| | *Sub-total* | | | | | *400* | *1,101* |
| | **Banjarmasin** | South Kalimantan | Kota | Banjarmasin | 24 | 2,000 | 5,671 |
| | | East Kalimantan | Kota | Balikpapan | 25 | 200 | 215 |
| | *Sub-total* | | | | | *2,200* | *5,886* |
| ***Total*** | | | | | | ***2,600*** | ***6,987*** |
| **Grand Total** | | | | | | **44,900** | **57,299** |

**Table 16: Overview of the baseline studies for the original allocations of connections for batch-2 LGs**

| Sub-sector | Region | Province | Local Government | | No | Baseline Studies | |
|---|---|---|---|---|---|---|---|
| | | | | | | Target | Potential |
| **Water** | **West** | West Sumatra | Kota | Padang | 1 | 1,500 | 1,956 |
| **Supply** | | South Sumatra | Kab. | Muara Enim | 2 | 1,000 | 1,183 |
| | | Lampung | Kab. | Lampung Utara | 3 | 700 | 747 |
| | | Banten | Kab. | Pandeglang | 4 | 1,000 | 1,085 |
| | | West Java | Kab. | Cianjur | 5 | 1,000 | 1,251 |
| | | Central Java | Kab. | Sukoharjo | 6 | 1,000 | 1,244 |
| | *Sub-total* | | | | | *6,200* | *7,466* |
| | **East** | East Java | Kab. | Sidoarjo | 7 | 3,000 | 3,900 |
| | | East Java | Kab. | Situbondo | 8 | 1,000 | 1,300 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | West Kalimantan | Kab. | Kapuas | 9 | 500 | 623 |
| | | South Kalimantan | Kota | Banjarmasin | 10 | 3,500 | 4,513 |
| | | East Kalimantan | Kota | Balikpapan | 11 | 1,000 | 1,299 |
| | | Central Sulawesi | Kab. | Donggala | 12 | 1,000 | 1,300 |
| | | Papua | Kota | Jayapura | 13 | 500 | 599 |
| | *Sub-total* | | | | | *10,500* | *13,534* |
| ***Total*** | | | | | | ***16,700*** | ***21,000*** |
| **Sewerage** | **West** | DKI Jakarta | DKI | Jakarta | 14 | 500 | 650 |
| | | West Java | Kota | Bandung | 15 | 1,500 | 1,649 |
| | *Sub-total* | | | | | *2,000* | *2,299* |
| ***Total*** | | | | | | ***2,000*** | ***2,299*** |
| **Grand Total** | | | | | | **18,700** | **23,299** |

## 4.2 BATCH 1 AND 2 LOCAL GOVERNMENTS: ADDITIONAL ALLOCATIONS OF SERVICE CONNECTIONS

The baseline for the additional allocations of service connections to the local governments was carried out under the contract extension granted by IndII to MLD. This additional baseline study merely covered the establishment of lists of potential customers recognised as MBR, i.e. considered as low-income households. The contract extension did not include investigations into the availability of idle capacity of the systems involved.

The table below provides an overview of the targeted numbers of additional PDAM/PDPAL customers and the numbers of potential customers identified per LG. In about half of the local governments granted additional allocations of house connections, more potential beneficiaries of the W&S Hibah program have been identified in order to ensure there are alternative candidates is some of the households decide to baulk from connection to the public water supply or sewage system after all. PDPAL Banjarmasin has experienced difficulties identifying additional potential beneficiaries for connection to the sewage system of the city: by mid May 2011 not even 20percent of the targeted 2,000 additional potential new customers were identified. During the June 2011 reallocation of targets for service connections the

2,000 additional connections that had been granted to PDPAL Banjarmasin were withdrawn.

**Table 17: Overview of the baseline studies for additional allocations of connections**

| Sub-sector | Region | Province | Local Government | | Batch | No | Baseline Studies | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Target | Potential |
| **Water** | **Jakarta** | South Sumatra | Kota | Palembang | I | 1 | 1,000 | 1,766 |
| **Supply** | | Banten | Kab. | Serang | I | 2 | 2,000 | 2,007 |
| | | West Java | Kab. | Karawang | I | 4 | 1,000 | 1,281 |
| | | West Java | Kab. | Kuningan | I | 5 | 2,000 | 2,009 |
| | | West Java | Kab. | Bogor | I | 6 | 1,000 | 1,295 |
| | | West Java | Kota | Bogor | I | 7 | 1,000 | 1,200 |
| | | West Java | Kab. | Garut | I | 8 | 1,000 | 1,000 |
| | *Sub-total* | | | | | | *9,000* | *10,558* |
| | **Jogjakarta** | Central Java | Kab. | Wonosobo | I | 9 | 2,500 | 2,500 |
| | *Sub-total* | | | | | | *2,500* | *2,500* |
| | **Surabaya** | East Java | Kota | Malang | I | 18 | 2,000 | 2,000 |
| | | East Java | Kab. | Sidoarjo | II | 7 | 2,000 | 2,333 |
| | *Sub-total* | | | | | | *4,000* | *4,333* |
| | **Banjarmasin** | South Kalimantan | Kota | Banjarmasin | II | 10 | 1,500 | 1,500 |
| | *Sub-total* | | | | | | *1,500* | *1,500* |
| ***Total*** | | | | | | | ***17,000*** | ***18,891*** |
| **Sewerage** | **Jogjakarta** | Central Java | Kota | Surakarta | I | 23 | 400 | 400 |
| | *Sub-total* | | | | | | *400* | *400* |

| Sub-sector | Region | Province | Local Government | | Batch | No | Baseline Studies | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Target | Potential |
| | **Banjarmasin** | South Kalimantan | Kota | Banjarmasin | I | 24 | 2,000 | 387 |
| | *Sub-total* | | | | | | *2,000* | *387* |
| ***Total*** | | | | | | | ***2,400*** | ***787*** |
| **Grand Total** | | | | | | | **19,400** | **19,678** |

It order to streamline the baseline survey, effort has been given to ensure that the database of the baseline survey is the same that is used for the verification of the installation of house connection. This implies that the PDAM has to work on the basis of the baseline database as well. If households identified as potential beneficiaries of the W&S Hibah program have second thoughts and baulk from connection to the PDAM system, this will be noted in the database and alternative candidates will be selected. The practice of many PDAMs to identify more potential beneficiaries than necessary seems rather efficient from a practical point of view. Even if a PDAM ends up with more households wanting a house connection than the allocation of the W&S Hibah program, the PDAM could decide to subsidise the remaining house connections with its own funds.

The table on the next page illustrates the linkage between the baseline survey and the verification. The table summarises per kecamatan and kelurahan/desa the potential beneficiaries identified in the baseline survey, the household that (were) cancelled out, any substitute households proposed, and the total numbers of HCs installed, verified and found eligible.

**Table 18: Example of linkage between baseline survey and verification**

Midterm Review and Verification Survey of Water and Sanitation Hibah

**Summary of Verification Result**

Kota/City: Padang

Propinsi/Province : West Sumatera

Australia Indonesia Partnership
Kemitraan Australia Indonesia

| *Sub-District/ Kecamatan* | *Village/Desa* | *Initial Proposed HCs (Baseline)* | *Total HCs Cancelled* | *Total Replacement* | *Total HCs Installed* | *Total HCs Verified* | *Ineligible Connection* | *Eligible Connection* | *Reason for cancellation* |
|---|---|---|---|---|---|---|---|---|---|
| KOTATENGAH | AIA PACAH | 128 | 19 | 0 | 109 | 109 | 0 | 109 | Cancellation was mostly deliberately forced by PDAM since the quota target has been achieved. To a lesser extent the cancellation was also decided by the households due to availability of existing water source |
| | DADOK TUNGGUL HITAM | 182 | 71 | 1 | 112 | 112 | 0 | 112 | |
| | BATIPUH PANJANG | 92 | 33 | 1 | 60 | 60 | 0 | 60 | |
| | BUNGO PASANG | 156 | 51 | 10 | 115 | 115 | 0 | 115 | |
| | KOTO PANJANG | 160 | 49 | 0 | 111 | 111 | 0 | 111 | |
| | LUBUK BUAYA | 215 | 36 | 0 | 179 | 179 | 0 | 179 | |
| | BATANG KABUNG GANTING | 2 | 0 | 0 | 2 | 2 | 0 | 2 | |
| | PADANG SARAI | 300 | 26 | 0 | 274 | 274 | 0 | 274 | |
| | PASIR NAN TIGO | 41 | 7 | 0 | 34 | 34 | 0 | 34 | |
| | LUBUK MINTARUN | 2 | 2 | 0 | 0 | 0 | 0 | 0 | |
| KURANJI | GANUNG SARIK | 176 | 32 | 0 | 144 | 144 | 0 | 144 | |
| | KALUMBUK | 70 | 19 | 0 | 51 | 51 | 0 | 51 | |
| | KORONG GADANG | 51 | 39 | 0 | 12 | 12 | 0 | 12 | |
| | SUNGAI SAPIH | 150 | 26 | 0 | 124 | 124 | 0 | 124 | |
| | KURANJI | 2 | 2 | 0 | 0 | 0 | 0 | 0 | |
| NANGGALO | GURUN LAWEH | 20 | 1 | 0 | 19 | 19 | 0 | 19 | |
| | KURAO PAGANG | 207 | 38 | 0 | 169 | 169 | 0 | 169 | |
| **TOTAL** | | **1954** | **451** | **12** | **1515** | **1515** | **0** | **1515** | |

## 4.3 BATCH 1 AND 2 LOCAL GOVERNMENTS: JUNE 2011 REALLOCATION OF SERVICE CONNECTIONS

The June 2011 reallocations of service connections as indicated in Table-6 and Table-7, a number of local governments received extra allocations of service connections, i.e. Kota Palembang +1,000, Kabupaten Karawang +1,000, Kabupaten Kuningan +500, Kabupaten Muara Enim +500, and Kabupaten Kupuas +500, while the allocations of several other local governments were cut, i.e. Kabupaten Situbondo -1,000, Kabupaten Ciamis – 1,500, PDPAL Kota Banjarmasin -2,000.

No consultant-executed baseline study was carried out for the additional allocation following the June 2011 reallocation. The PDAMs of the respective local governments were responsible for the connection of new consumers eligible for the W&S Hibah program. The verification process would guarantee the new connections complied with the criteria for eligibility.

## 4.4 RECOMMENDATIONS

With the experience gained in the batch 1 and 2 local governments, PDAM/PDPAL can be expected to be able to compile lists of potential new consumers themselves. Basically this procedure was followed in the five local governments that received extra allocations of service connections subsequent to the June 2011 final reallocation of targets.

The project implementation manual (PIM; Pedoman Pelaksanaan Hibah) needs to clearly spell out the requirements, not only regarding the criteria for eligibility of households for the W&S Hibah program, but also which supporting documents to provide and how to set-up, link and use the database of potential beneficiaries from baseline survey to technical verification.

The allocation of a unique number to each potential beneficiary household requires special attention. This is critical in order to avoid subsequent confusion at the time of installation of house connections and technical verification.

Good examples of what is expected from PDAM/PDPAL, as far as database and mapping of potential new customers is concerned, are to be provided by CPMU/IndII. During verification, the social status of the new customers, i.e. whether they can be characterised as MBR/low-income, is checked, as well as whether the actual location of the customer connection matches the mapped location.

As part of project identification, and before the execution of the baseline, the availability of idle capacity needs to be investigated, although one should be aware that answering this question is not as straightforward as one would like. Water treatment plants can have excess capacity, but the distribution network may constitute a bottleneck for continuous supply of water, in particular to consumer located at the

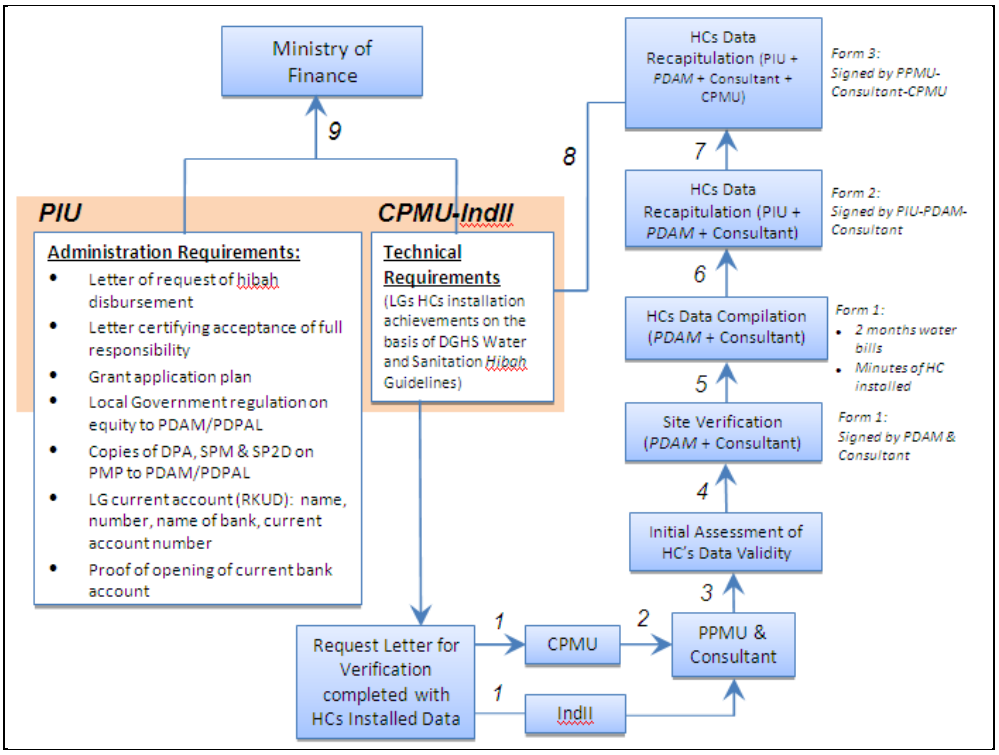
far end of the distribution network. The issue of idle capacity is discussed in more detail in Section 5.3.1.

# CHAPTER 5: VERIFICATION

## 5.1 METHODOLOGY

The overall steps of the verification process in order to determine the eligibility of water supply and sewage house connections under the W&S Hibah program are presented in Figure 10. In order to be eligible, connections shall meet both administrative and technical conditions. The eligibility criteria are discussed in detail in Section 2.4.

**Figure 10: Eligibility requirements and verification process steps**




### 5.1.1 Administrative verification

The following documents should be made available in order to meet the administrative requirements as per the Letter of Agreement on Grant Disbursement (Naskah Perjanjian Penerusan Hibah, NPPH):

- Letter requesting grant disbursement *(Surat Permintaan Penyaluran Hibah, SPPH)*
- Letter certifying acceptance of full responsibility *(Surat Pernyataan Tanggung Jawab Mutlak, SPTJM)*
- Grant application plan *(Rencana Penggunaan Hibah, RPH)*

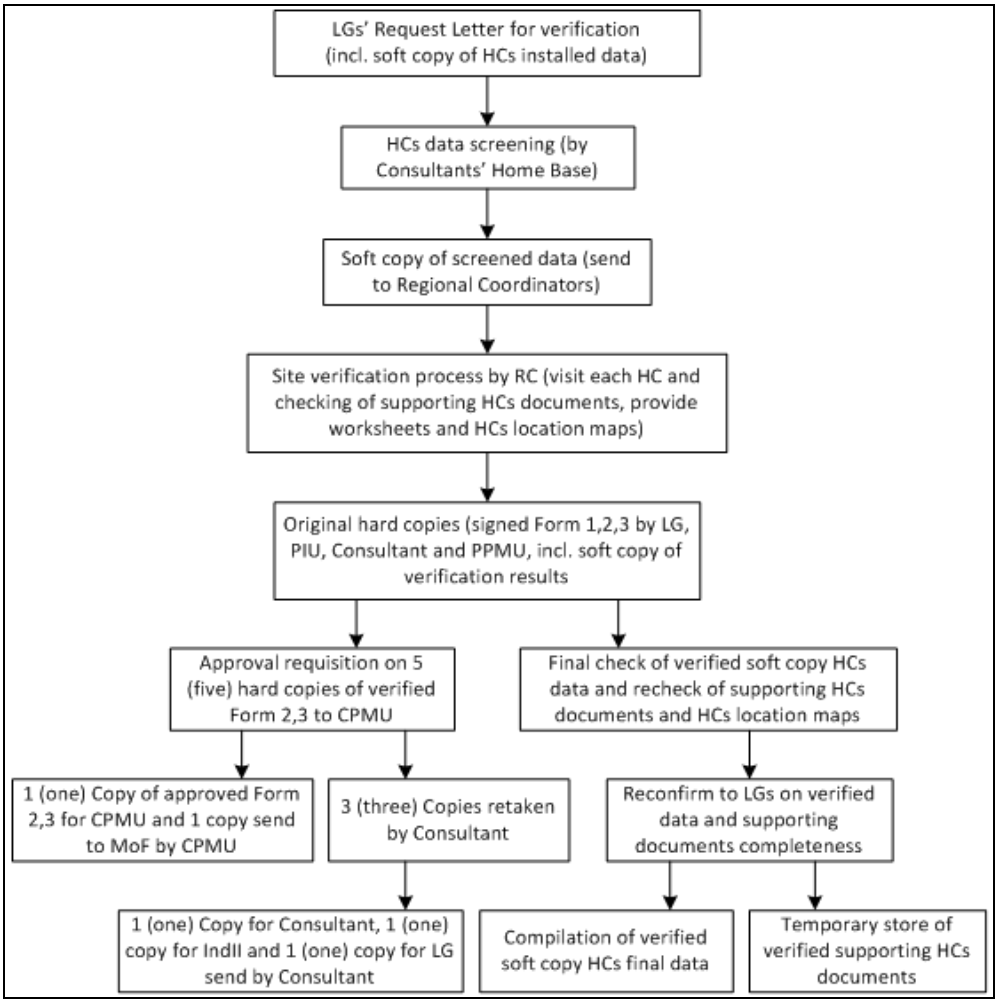
- Local Government regulation on equity provision to PDAM/PDPAL *(Peraturan Dearah tentang Penyertaan Modal Pemerintah [PMP] kepada PDAM/PDPAL)*
- Copies of DPA, SPM & SP2D re PMP to PDAM/PDPAL *(Salinan Daftar Pelaksanaan Anggaran, Surat Perintah Membayar & Surat Perintah Pencairan Dana atas Penyertaan Modal Pemerintah Daerah kepada PDAM/PDPAL)*
- LG current account (RKUD): name, name of bank, current account number
- Proof of documentation from the bank of the opening of the current account *(salinan bukti pembukaan rekening koran/RKUD yang menunjukkan nomor dan nama rekening)*

These documents had to be provided by the local Project Implementation Unit (PIU) to the Ministry of Finance (MoF).

### 5.1.2 Technical verification

Successful technical verification and proper certification of the actual installation of house connections to eligible beneficiaries was a prerequisite for MoF to agree with disbursement of grant funds to a local government. For this purpose, detail of Consultants' internal verification process steps is shown below.

**Figure 11: Consultants' Internal Verification Process steps**




Once a local government considered that all administrative and technical requirements were complied with, its Project Implementation Unit (PIU), often represented by the PDAM or PDPAL, issued a letter of request for verification to CPMU with a copy to IndII. The letter should have been supported by the necessary documentation, i.e. HCs data in a similar format as the data of the baseline survey. Based on the verification request of the PIU, the CPMU invited the Consultant to carry out the field verification process. However, before the actual field verification could take place, the Consultant had to screens the verification data by comparing these data with social survey data and technical report data. If there were no discrepancies between the data submitted by the LG and the data of the social survey and the technical report, the LG data was send to the respective field team for the on-site verification process. IndII and CPMU were consulted regarding LG data that did not match with the social survey and technical report data. IndII and CPMU had to decide whether non-matching data should be verified, or not.

Upon completion of the screening of the LG data submitted for verification, the field teams visited every connection and checked the technical eligibility of the connection,

principally on the basis of three decision criteria: (a) the technical functionality of the connection, (b) MBR category of the household (proxy: electric capacity ≤ 1,300 KVA) and (c) two months of paid water or sewerage bills. These criteria were recorded on a special form (Form 1) and signed by field team of the Consultant and the PDAM/PDPAL). Another form (Form 2) provided a summary of all household connections verified, and was also signed by regional coordinator of the Consultant, the PIU and the PDAM/PDPAL. Finally, the third form (Form 3) certified the total number of eligible household connections, and was signed by CPMU, PPMU and the Consultant. Forms are compiled in **Annexe 4**.

## 5.2 GENERAL RESULTS

### 5.2.1 Technical verification in 2010

Because the Consultant for verification of installed house connections of Batch-1 LGs was only appointed in November 2010 and the final deadline for submission of administrative and technical verification documents by local governments to the Ministry of Finance (MoF) for 2010 disbursements of grants under the W&S Hibah program was 18 December 2010, the time available for verification in 2010 was extremely limited. One way to accommodate this was to appoint larger numbers of field staff/surveyors to execute the verification. Nevertheless, some simplifications in the verification process had to be accepted in order allow LGs to submit the required documentation on time to MoF. This was especially the case because the records submitted by PDAM/PDPALs did not always match those of the baseline consultant, duplication of identification (ID) numbers occurred in the baseline list, names of beneficiaries differed, some potential beneficiaries withdrew their candidacy, while others were added that had not been identified before as beneficiaries, and house connections were not always correctly mapped. In some cases, verification was carried out on the basis of sampling. The verification of the continuity of supply of water was not always possible. In several cases PDAMs provided statements that water supply to the areas where beneficiaries were located, was continuous. The issue of idle capacity and continuity of supply will be discussed in more detail in Section 5.3.1.

Eventually, verification of house connections in 2010 was carried out in 14 of the 25 batch-1 LGs. An overview of the 2010 verification results is given in Table 19.

**Table 19: Results of the 2010 verification of house connections in batch-1 LGs**

| No | Local Government | HC Target # | HCs Installed | | HCs Verified | |
|---|---|---|---|---|---|---|
| | | | # | % | # | % |
| 1 | Kota Palembang | 4,000 | 2,924 | 73% | 1,991 | 50% |
| 2 | Kab. Serang | 2,000 | 2,000 | 100% | 2,000 | 100% |
| 3 | Kab. Ciamis | 3,000 | 650 | 22% | 500 | 17% |
| 4 | Kab. Karawang | 3,000 | 3,000 | 100% | 3,000 | 100% |
| 5 | Kab. Kuningan | 2,650 | 1,700 | 64% | 1,500 | 57% |
| 6 | Kab. Bogor | 3,500 | 1,054 | 30% | | 0% |
| 7 | Kota Bogor | 1,000 | 840 | 84% | | 0% |
| 8 | Kab. Garut | 2,650 | 2,000 | 75% | 1,500 | 57% |
| | *Sub-total* | *21,800* | *14,168* | *65%* | *10,491* | *48%* |
| 9 | Kab. Wonosobo | 2,500 | 2,500 | 100% | 2,500 | 100% |
| 10 | Kab. Wonogiri | 2,000 | 1,100 | 55% | 950 | 48% |
| 11 | Kab. Klaten | 3,000 | 1,300 | 43% | 1,000 | 33% |
| 12 | Kab. Cilacap | 1,300 | 800 | 62% | | 0% |
| 13 | Kab. Boyolali | 1,150 | 650 | 57% | | 0% |
| 14 | Kab. Kudus | 1,000 | 300 | 30% | | 0% |
| 15 | Kota Pekalongan | 500 | 500 | 100% | 500 | 100% |
| | *Sub-total* | *11,450* | *7,150* | *62%* | *4,950* | *43%* |
| 16 | Kab. Bangkalan | 1,100 | 500 | 45% | | 0% |

| No | Local Government | HC Target # | HCs Installed | | HCs Verified | |
|---|---|---|---|---|---|---|
| | | | # | % | # | % |
| 17 | Kab. Jombang | 1,200 | 550 | 46% | 500 | 42% |
| 18 | Kota Malang | 2,000 | 968 | 48% | 500 | 25% |
| 19 | Kab. East Lombok | 500 | 500 | 100% | | 0% |
| | *Sub-total* | *4,800* | *2,518* | *52%* | *1,000* | *21%* |
| 20 | Kab. Banjar | 2,000 | 700 | 35% | | 0% |
| 21 | Kota Banjarbaru | 1,500 | 107 | 7% | | 0% |
| 22 | Kota Palangkaraya | 750 | 684 | 91% | | 0% |
| | *Sub-total* | *4,250* | *1,491* | *35%* | *0* | *0%* |
| | ***Total*** | ***42,300*** | ***25,327*** | ***60%*** | ***16,441*** | ***39%*** |
| 23 | Kota Surakarta | 400 | 400 | 100% | 400 | 100% |
| | *Sub-total* | *400* | *400* | *100%* | *400* | *100%* |
| 24 | Kota Banjarmasin | 2,000 | 1,541 | 77% | 1,220 | 61% |
| 25 | Kota Balikpapan | 200 | 30 | 15% | | 0% |
| | *Sub-total* | *2,200* | *1,571* | *71%* | *1,220* | *55%* |
| | ***Total*** | ***2,600*** | ***1,971*** | ***76%*** | ***1,620*** | ***62%*** |
| | **Grand Total** | **44,900** | **27,298** | **61%** | **18,061** | **40%** |

### 5.2.2 Technical verification in 2011 – until 30 June 2011

The verification of the installation of house connections for water and wastewater in 2011 was initially less hectic than in 2010, also because requests for verification were only submitted gradually. By mid May 2011 the number of HCs verified for batch-1 LGs

had increased only from 40percent to 53percent, with verification for 24percent of the total number of 44,900 HCs ongoing. At that time, the HC verification for batch-2 LGs had been completed for 27percent of the total 18,700 HCs, and was ongoing for another 24percent of the targeted number for batch-2 LGs. No requests for verification of HCs with respect to the additional allocations had been received by the Consultant at that time. Consequently, it could be expected that the requests for verification of house connections during the final 1.5 months of the W&S Hibah program – i.e. until 30 June 2011 – would increase in intensity. Fortunately, the experience of the parties involved in the verification process at local level had significantly increased by that time and procedures for verification had been streamlined. The efforts of the Consultant to make sure the baseline data for the additional allocations of house connections was unequivocally linked to the verification results helped to manage the increased workload. Overviews of the progress of the verification by mid of June 2011 are presented in the following tables.

**Table 20: Summary of the verification results (*status: 15 June 2011)***

| Water Supply & Sanitation | | | HC Target | HCs Installed | | Request Verification HCs | | HCs Verified | |
|---|---|---|---|---|---|---|---|---|---|
| | | | # | # | % | # | % | # | % |
| WS | Batch 1 | Initial | 42,300 | 40,855 | 96.6% | 40,699 | 96.2% | 39,255 | 92.8% |
| | Batch 2 | Initial | 16,700 | 14,524 | 87.0% | 14,208 | 85.1% | 13,171 | 78.9% |
| | Batch 1 | Additional | 13,500 | 13,500 | 100.0% | 7,281 | 53.9% | 2,000 | 14.8% |
| | Batch 2 | Additional | 3,500 | 2,700 | 77.1% | 2,000 | 57.1% | 2,177 | 62.2% |
| ***Total Water HCs*** | | | ***76,000*** | ***71,579*** | ***94.2%*** | ***64,188*** | ***84.5%*** | ***56,603*** | ***74.5%*** |
| San | Batch 1 | Initial | 2,600 | 2,600 | 100.0% | 2,623 | 100.9% | 1,820 | 70.0% |
| | Batch 2 | Initial | 2,000 | 1,761 | 88.1% | 1,761 | 88.1% | 1,500 | 75.0% |
| | Batch 1 | Additional | 2,400 | 442 | 18.4% | 0 | 0.0% | 0 | 0.0% |
| | Batch 2 | Additional | 0 | 0 | - | 0 | - | 0 | - |
| ***Total Sanitation HCs*** | | | ***7,000*** | ***4,803*** | ***68.6%*** | ***4,384*** | ***62.6%*** | ***3,320*** | ***47.4%*** |
| **Total HCs** | | | **83,000** | **76,382** | **92.0%** | **68,572** | **82.6%** | **59,923** | **72.2%** |

**Table 21: Results of the verification of batch-1 LGs; original allocation (status: 15 June 2011)**

| No. | Local Governments | HC Target | HCs Installed | | Request Verification HCs | | HCs Verified | |
|---|---|---|---|---|---|---|---|---|
| | | # | # | % | # | % | # | % |
| 1 | Kota Palembang | 4,000 | 4,000 | 100.0% | 4,000 | 100.0% | 4,000 | 100.0% |
| 2 | Kab. Serang | 2,000 | 2,000 | 100.0% | 2,000 | 100.0% | 2,000 | 100.0% |
| 3 | Kab. Ciamis | 3,000 | 1,555 | 51.8% | 1,544 | 51.5% | 1,555 | 51.8% |
| 4 | Kab. Karawang | 3,000 | 3,000 | 100.0% | 3,000 | 100.0% | 3,000 | 100.0% |
| 5 | Kab. Kuningan | 2,650 | 2,650 | 100.0% | 2,650 | 100.0% | 2,650 | 100.0% |
| 6 | Kab. Bogor | 3,500 | 3,500 | 100.0% | 3,500 | 100.0% | 3,500 | 100.0% |
| 7 | Kota Bogor | 1,000 | 1,000 | 100.0% | 1,027 | 102.7% | 1,000 | 100.0% |
| 8 | Kab. Garut | 2,650 | 2,650 | 100.0% | 2,650 | 100.0% | 2,650 | 100.0% |
| | *Sub-total* | *21,800* | *20,355* | *93.4%* | *20,371* | *93.4%* | *20,355* | *93.4%* |
| 9 | Kab. Wonosobo | 2,500 | 2,500 | 100.0% | 2,500 | 100.0% | 2,500 | 100.0% |
| 10 | Kab. Wonogiri | 2,000 | 2,000 | 100.0% | 2,118 | 105.9% | 2,000 | 100.0% |
| 11 | Kab. Klaten | 3,000 | 3,000 | 100.0% | 2,000 | 66.7% | 2,000 | 66.7% |
| 12 | Kab. Cilacap | 1,300 | 1,300 | 100.0% | 1,361 | 104.7% | 1,300 | 100.0% |
| 13 | Kab. Boyolali | 1,150 | 1,150 | 100.0% | 1,243 | 108.1% | 1,150 | 100.0% |
| 14 | Kab. Kudus | 1,000 | 1,000 | 100.0% | 1,539 | 153.9% | 1,000 | 100.0% |
| 15 | Kota Pekalongan | 500 | 500 | 100.0% | 500 | 100.0% | 500 | 100.0% |
| | *Sub-total* | *11,450* | *11,450* | *100.0%* | *11,261* | *98.3%* | *10,450* | *91.3%* |
| 16 | Kab. Bangkalan | 1,100 | 1,100 | 100.0% | 1,117 | 101.5% | 500 | 45.5% |
| 17 | Kab. Jombang | 1,200 | 1,200 | 100.0% | 1,200 | 100.0% | 1,200 | 100.0% |
| 18 | Kota Malang | 2,000 | 2,000 | 100.0% | 2,000 | 100.0% | 2,000 | 100.0% |
| 19 | Kab. Lombok Timur | 500 | 500 | 100.0% | 500 | 100.0% | 500 | 100.0% |
| | *Sub-total* | *4,800* | *4,800* | *100.0%* | *4,817* | *100.4%* | *4,200* | *87.5%* |

| No. | Local Governments | HC Target | HCs Installed | | Request Verification HCs | | HCs Verified | |
|---|---|---|---|---|---|---|---|---|
| | | # | # | % | # | % | # | % |
| 20 | Kab. Banjar | 2,000 | 2,000 | 100.0% | 2,000 | 100.0% | 2,000 | 100.0% |
| 21 | Kota Banjarbaru | 1,500 | 1,500 | 100.0% | 1,500 | 100.0% | 1,500 | 100.0% |
| 22 | Kot Palangkaraya | 750 | 750 | 100.0% | 750 | 100.0% | 750 | 100.0% |
| | *Sub-total* | *4,250* | *4,250* | *100.0%* | *4,250* | *100.0%* | *4,250* | *100.0%* |
| | ***Total Water HCs*** | ***42,300*** | ***40,855*** | ***96.6%*** | ***40,699*** | ***96.2%*** | ***39,255*** | ***92.8%*** |
| 23 | Kota Surakarta | 400 | 400 | 100.0% | 400 | 100.0% | 400 | 100.0% |
| | *Sub-total* | *400* | *400* | *100.0%* | *400* | *100.0%* | *400* | *100.0%* |
| 24 | Kota Banjarmasin | 2,000 | 2,000 | 100.0% | 2,000 | 100.0% | 1,220 | 61.0% |
| 25 | Kota Balikpapan | 200 | 200 | 100.0% | 223 | 111.5% | 200 | 100.0% |
| | *Sub-total* | *2,200* | *2,200* | *100.0%* | *2,223* | *101.0%* | *1,420* | *64.5%* |
| | ***Total Sanitation HCs*** | ***2,600*** | ***2,600*** | ***100.0%*** | ***2,623*** | ***100.9%*** | ***1,820*** | ***70.0%*** |
| | **Grand Total HCs** | **44,900** | **43,455** | **96.8%** | **43,322** | **96.5%** | **41,075** | **91.5%** |

**Table 22: Results of the verification of batch-1 LGs; additional allocation (status: 15 June 2011)**

| No. | Local Governments | HC Target | HCs Installed | | Request Verification HCs | | HCs Verified | |
|---|---|---|---|---|---|---|---|---|
| | | # | # | % | # | % | # | % |
| 1 | Kota Palembang | 1,000 | 1,000 | 100.0% | 0 | 0.0% | 0 | 0.0% |
| 2 | Kab. Serang | 2,000 | 2,000 | 100.0% | 0 | 0.0% | 2,000 | 100.0% |
| 4 | Kab. Karawang | 1,000 | 1,000 | 100.0% | 1,281 | 128.1% | 0 | 0.0% |
| 5 | Kab. Kuningan | 2,000 | 2,000 | 100.0% | 2,000 | 100.0% | 0 | 0.0% |
| 6 | Kab. Bogor | 1,000 | 1,000 | 100.0% | 1,000 | 100.0% | 0 | 0.0% |

| No. | Local Governments | HC Target | HCs Installed | | Request Verification HCs | | HCs Verified | |
|---|---|---|---|---|---|---|---|---|
| | | # | # | % | # | % | # | % |
| 7 | Kota Bogor | 1,000 | 1,000 | 100.0% | 0 | 0.0% | 0 | 0.0% |
| 8 | Kab. Garut | 1,000 | 1,000 | 100.0% | 1,000 | 100.0% | 0 | 0.0% |
| 9 | Kab. Wonosobo | 2,500 | 2,500 | 100.0% | 0 | 0.0% | 0 | 0.0% |
| 18 | Kota Malang | 2,000 | 2,000 | 100.0% | 2,000 | 100.0% | 0 | 0.0% |
| | ***Total Water HCs*** | ***13,500*** | ***13,500*** | ***100.0%*** | ***7,281*** | ***53.9%*** | ***2,000*** | ***14.8%*** |
| 23 | Kota Surakarta | 400 | 400 | 100.0% | 0 | 0.0% | 0 | 0.0% |
| 24 | Kota Banjarmasin | 2,000 | 42 | 2.1% | 0 | 0.0% | 0 | 0.0% |
| | ***Total Sanitation HCs*** | ***2,400*** | ***442*** | ***18.4%*** | ***0*** | ***0.0%*** | ***0*** | ***0.0%*** |
| | **Grand Total HCs** | **15,900** | **13,942** | **87.7%** | **7,281** | **45.8%** | **2,000** | **12.6%** |

**Table 23: Results of the verification of batch-2 LGs; initial and additional allocation (status: 15 June 2011)**

**INITIAL ALLOCATION**

| No | Local Governments | HC Target | HCs Installed | | Request Verification HCs | | HCs Verified | |
|---|---|---|---|---|---|---|---|---|
| | | # | # | % | # | % | # | % |
| 1 | Kota Padang | 1,500 | 1,500 | 100.0% | 1,500 | 100.0% | 1,500 | 100.0% |
| 2 | Kab. Muara Enim | 1,000 | 1,000 | 100.0% | 1,000 | 100.0% | 1,000 | 100.0% |
| 3 | Kab. Lampung Utara | 700 | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 4 | Kab. Pandeglang | 1,000 | 1,000 | 100.0% | 1,000 | 100.0% | 1,000 | 100.0% |
| 5 | Kab. Cianjur | 1,000 | 1,000 | 100.0% | 1,000 | 100.0% | 1,000 | 100.0% |

**INITIAL ALLOCATION**

| No | Local Governments | HC Target | HCs Installed | | Request Verification HCs | | HCs Verified | |
|---|---|---|---|---|---|---|---|---|
| | | # | # | % | # | % | # | % |
| 6 | Kab. Sukoharjo | 1,000 | 1,000 | 100.0% | 1,083 | 108.3% | 1,000 | 100.0% |
| | *Sub-total* | *6,200* | *5,500* | *88.7%* | *5,583* | *90.0%* | *5,500* | *88.7%* |
| 7 | Kab. Sidoarjo | 3,000 | 3,000 | 100.0% | 3,000 | 100.0% | 2,571 | 85.7% |
| 8 | Kab. Situbondo | 1,000 | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| 9 | Kota Jayapura | 500 | 500 | 100.0% | 500 | 100.0% | 500 | 100.0% |
| 10 | Kab. Kapuas | 500 | 500 | 100.0% | 1,000 | 200.0% | 500 | 100.0% |
| 11 | Kota Banjarmasin | 3,500 | 3,500 | 100.0% | 2,456 | 70.2% | 2,850 | 81.4% |
| 12 | Kota Balikpapan | 1,000 | 1,000 | 100.0% | 1,299 | 129.9% | 1,000 | 100.0% |
| 13 | Kab. Donggala | 1,000 | 524 | 52.4% | 370 | 37.0% | 250 | 25.0% |
| | *Sub-total* | *10,500* | *9,024* | *85.9%* | *8,625* | *82.1%* | *7,671* | *73.1%* |
| | ***Total Water HCs*** | ***16,700*** | ***14,524*** | ***87.0%*** | ***14,208*** | ***85.1%*** | ***13,171*** | ***78.9%*** |
| 14 | DKI Jakarta | 500 | 261 | 52.2% | 261 | 52.2% | 0 | 0.0% |
| 15 | Kota Bandung | 1,500 | 1,500 | 100.0% | 1,500 | 100.0% | 1,500 | 100.0% |
| | *Sub-total* | *2,000* | *1,761* | *88.1%* | *1,761* | *88.1%* | *1,500* | *75.0%* |
| | ***Total Sanitation HCs*** | ***2,000*** | ***1,761*** | ***88.1%*** | ***1,761*** | ***88.1%*** | ***1,500*** | ***75.0%*** |
| | **Grand Total HCs** | **18,700** | **16,285** | **87.1%** | **15,969** | **85.4%** | **14,671** | **78.5%** |

**ADDITIONAL ALLOCATION**

| No | Local Governments | HC Target | HCs Installed | | Request Verification HCs | | HCs Verified | |
|---|---|---|---|---|---|---|---|---|
| | | # | # | % | # | % | # | % |
| 7 | Kab. Sidoarjo | 2,000 | 2,000 | 100.0% | 2,000 | 100.0% | 2,177 | 108.9% |
| 11 | Kota Banjarmasin | 1,500 | 700 | 46.7% | 0 | 0.0% | 0 | 0.0% |
| | *Sub-total* | *3,500* | *2,700* | *77.1%* | *2,000* | *57.1%* | *2,177* | *62.2%* |
| | ***Total Water HCs*** | ***3,500*** | ***2,700*** | ***77.1%*** | ***2,000*** | ***57.1%*** | ***2,177*** | ***62.2%*** |
| | **Grand Total HCs** | **3,500** | **2,700** | **77.1%** | **2,000** | **57.1%** | **2,177** | **62.2%** |

As many requests for verification were only received during the second half of June 2011, it was clear that the actual verification of the installation of all house connection, in particular for the additional allocations, could not be completed before the end the month, IndII agreed to an extension of the contract to allow finalisation of the verification process and the project during the month of July 2011.

Of the batch-1 LGs, only Kabupaten Ciamis did not achieve the target for installation of water supply house connection. PDAM Kabupaten Ciamis installed only 1,555 connection; 1,445 connections shy of the target of 3,000. The main reason is the fact that an envisaged increase in production capacity could not be realised.

By the end of June 2011, the initial target of 16,700 HCs for water supply and 2,000 HCs for wastewater for batch-2 LGs, was not achieved. Kabupaten Stitubondo, with a target of 1,000 house connections, withdrew itself from participation in the W&S Hibah program after a new bupati was installed. Also, Kabupaten Lampung Utara did not succeed to make any connection as the tender procedure for water supply materials took more time than envisaged.

DKI Jakarta managed only to install 400 of the targeted 500 sewage connections by the end of June 2011.

The additional allocations of services connections for water supply granted to nine batch-1 and two batch-2 local governments were all realised by the end of June 2011. With respect to the additional allocations of house connections for water supply, PDAM Kota Surakarta completed 400 extra sewage connections, but PDPAL Banjarmasin did not manage to make the additional 2000 connections, because of difficulties with the identification of interested, eligible households within reach of the wastewater collection system of the PDPAL.

The verification of many of the additional allocations of house connections could not be completed in June 2011, because about half of the requests for verification were only received during the second half of that month.

Based on the 15 June 2011 verification results and the signs whether local governments were sufficiently interested and capable to complete their targets a final reallocation of the targets for service connections was made by DGHS and IndII. For details refer to Table-6 and Table-7.

### 5.2.3 Technical verification in 2011 – July and August 2011

By the end of June 2011, IndII agreed to another extension of the MLD contract for verification of service connections in order to accommodate verification during the months of July and August 2011.

In the following tables overviews are given of the total targets of batch-1 and batch-2 local governments for installation of water and sewerage service connections and based on the final June 2011 reallocation. The tables also indicate the total numbers of service connections verified and considered eligible under the W&S Hibah program.

**Table 24: Results of the verification of batch-1 LGs (status: 31 August 2011)**

| No. | Local Governments | Final HC Target # | HCs Verified | |
|---|---|---|---|---|
| | | | # | % |
| 1 | Kota Palembang | 6,000 | 6,000 | 100.0% |
| 2 | Kab. Serang | 4,000 | 4,000 | 100.0% |
| 3 | Kab. Ciamis | 1,500 | 1,500 | 100.0% |
| 4 | Kab. Karawang | 5,000 | 5,000 | 100.0% |
| 5 | Kab. Kuningan | 5,150 | 5,150 | 100.0% |
| 6 | Kab. Bogor | 4,500 | 4,500 | 100.0% |
| 7 | Kota Bogor | 2,000 | 2,000 | 100.0% |
| 8 | Kab. Garut | 3,650 | 3,650 | 100.0% |
| | *Sub-total* | *31,800* | *31,800* | *100.0%* |
| 9 | Kab. Wonosobo | 5,000 | 5,000 | 100.0% |
| 10 | Kab. Wonogiri | 2,000 | 2,000 | 100.0% |

| No. | Local Governments | Final HC Target # | HCs Verified | |
|---|---|---|---|---|
| | | | # | % |
| 11 | Kab. Klaten | 3,000 | 3,000 | 100.0% |
| 12 | Kab. Cilacap | 1,300 | 1,300 | 100.0% |
| 13 | Kab. Boyolali | 1,150 | 1,150 | 100.0% |
| 14 | Kab. Kudus | 1,000 | 1,000 | 100.0% |
| 15 | Kota Pekalongan | 500 | 500 | 100.0% |
| | *Sub-total* | *13,950* | *13,950* | *100.0%* |
| 16 | Kab. Bangkalan | 1,100 | 1,100 | 100.0% |
| 17 | Kab. Jombang | 1,200 | 1,200 | 100.0% |
| 18 | Kota Malang | 4,000 | 4,000 | 100.0% |
| 19 | Kab. Lombok Timur | 500 | 500 | 100.0% |
| | *Sub-total* | *6,800* | *6,800* | *100.0%* |
| 20 | Kab. Banjar | 2,000 | 2,000 | 100.0% |
| 21 | Kota Banjarbaru | 1,500 | 1,500 | 100.0% |
| 22 | Kota Palangkaraya | 750 | 750 | 100.0% |
| | *Sub-total* | *4,250* | *4,250* | *100.0%* |
| | ***Total Water HCs*** | ***56,800*** | ***56,800*** | ***100.0%*** |
| 23 | Kota Surakarta | 800 | 800 | 100.0% |
| | *Sub-total* | *800* | *800* | *100.0%* |
| 24 | Kota Banjarmasin | 2,000 | 1,220 | 61.0% |
| 25 | Kota Balikpapan | 200 | 200 | 100.0% |
| | *Sub-total* | *2,200* | *1,420* | *64.5%* |
| | ***Total Sanitation HCs*** | ***3,000*** | ***2,220*** | ***74.0%*** |
| | **Grand Total HCs** | **59,800** | **59,020** | **98.7%** |

The final[10] targets for new water supply connections were achieved by all 22 batch-1 local governments. The sewerage connection targets were achieved by Kota Surakarta and Kota Balikpapan. PDPAL Kota Banjarmasin could only realise 1,220 (61%) of the targeted 2,000 sewerage connections.

**Table 25: Results of the verification of batch-2 LGs (status: 31 August 2011)**

| No. | Local Governments | Final HC Target | HCs Verified | |
|---|---|---|---|---|
| | | # | # | % |
| 1 | Kota Padang | 1,500 | 1,500 | 100.0% |
| 2 | Kab. Muara Enim | 1,500 | 1,500 | 100.0% |
| 3 | Kab. Lampung Utara | 700 | 0 | 0.0% |
| 4 | Kab. Pandeglang | 1,000 | 1,000 | 100.0% |
| 5 | Kab. Cianjur | 1,000 | 1,000 | 100.0% |
| 6 | Kab. Sukoharjo | 1,000 | 1,000 | 100.0% |
| | *Sub-total* | *6,700* | *6,000* | *89.6%* |
| 7 | Kab. Sidoarjo | 5,000 | 5,000 | 100.0% |
| 8 | Kab. Situbondo | 0 | 0 | |
| 9 | Kota Jayapura | 500 | 500 | 100.0% |
| 10 | Kab. Kapuas | 1,000 | 808 | 80.8% |
| 11 | Kota Banjarmasin | 5,000 | 5,000 | 100.0% |
| 12 | Kota Balikpapan | 1,000 | 1,000 | 100.0% |
| 13 | Kab. Donggala | 1,000 | 1,000 | 100.0% |
| | *Sub-total* | *13,500* | *13,308* | *98.6%* |
| | ***Total Water HCs*** | ***20,200*** | ***19,308*** | ***95.6%*** |

[10] Under the current phase of the AusAID-supported W&S Hibah program

| No. | Local Governments | Final HC Target # | HCs Verified | |
|---|---|---|---|---|
| | | | # | % |
| 14 | DKI Jakarta | 500 | 326 | 65.2% |
| 15 | Kota Bandung | 1,500 | 1,500 | 100.0% |
| | *Sub-total* | *2,000* | *1,826* | *91.3%* |
| | ***Total Sanitation HCs*** | ***2,000*** | ***1,826*** | ***91.3%*** |
| | **Grand Total HCs** | **22,200** | **21,134** | **95.2%** |

The final targets for new water supply connections for batch-2 local governments were not achieved by PDAM Kabupaten Lampung Utara, which could not realise any connection under the W&S Hibah program and PDMA Kabupaten Kapuas, which only managed to complete 308 of the 500 extra service connections it had received as additional target during the final reallocation of June 2011. DKI Jakarta realised only 326 out of its target of 500 sewerage connections. Kota Bandung realised the full target of 1,500 sewerage connections.

A summary of the results of the verification of new service connections under the W&S Hibah program is indicated in the table below.

**Table 26: Summary of the W&S Hibah program verification results (status: 31 August 2011)**

| | | Final HC Target # | HCs Verified | |
|---|---|---|---|---|
| | | | # | % |
| **Water Supply** | Batch-1 | 56,800 | 56,800 | 100.0% |
| | Batch-2 | 20,200 | 19,308 | 95.6% |
| ***Total Water HCs*** | | ***77,000*** | ***76,108*** | ***98.8%*** |
| **Sanitation** | Batch-1 | 3,000 | 2,220 | 74.0% |
| | Batch-2 | 2,000 | 1,826 | 91.3% |
| ***Total Sanitation HCs*** | | ***5,000*** | ***4,046*** | ***80.9%*** |
| **W&S Hibah program** | | **82,000** | **80,154** | **97.7%** |

Instead of the 70,000 new water connections targeted at the outset by the W&S Hibah program, 77,000 connections were made, or 10percent more than initially envisaged. However, of the 10,000 new sewerage connections targeted by the program, only 50percent or 5,000 connections were made.

The lists of verified house connections for 38 local governments and numbers of the implemented house connections per Kecamatan are provided in separate bundles as **Annex 8** of this report.

## 5.3 SPECIFIC ISSUES

### 5.3.1 Technical – idle capacity

In order to be able to provide a satisfactory level of service to consumers, a PDAM needs to have idle (production and) distribution capacity. Selection of the first batch of local governments and PDAMs was carried out by DGHS in conjunction with the WSI preparation team. Before joining the W&S Hibah scheme the PDAM had to certify having excess capacity.

If a PDAM has only idle production capacity, but a distribution system that lacks capacity, it may have to expand its transmission and distribution network in order to accommodate new service connections. If a PDAM does not have idle production capacity, it will need to invest first in additional sources and treatment of water before it can apply for participation in the W&S Hibah program. Major investments in production and distribution capacity are not covered by the W&S Hibah scheme.

A PDAM serving a kabupaten usually operates a number of separated water supply systems. Some of these systems may have excess capacity, while others do not. Only the water supply systems with idle capacity are eligible for the W&S Hibah program.

Before execution of the baseline study, the fact that a PDAM and a specific water supply system have idle capacity needs to be ascertained. The procedure and criterion how to determine whether a system has idle capacity is not clear: the project implementation manual[11] is rather ambiguous in this respect.

***Continuity of supply***

During the verification survey of the installation of water supply house connections (refer to **Error! Reference source not found.**) the proper functioning of the connection is established by checking whether a sufficient flow of water is available: Annexe 4,

[11] Pedoman pengelolaan hibah air minum, § 2.1b: *"Tersedia kapasitas air untuk didistribusikan kepada pelanggan baru."*

form 1, water supply. In form 2 used for the verification of water supply house connections, an indication is given how many hours per day water is supplied. This can be information provided by the beneficiaries if those are available at the time of the field check. Alternatively, the hours of supply are based on verbal information provided by the PDAM. The accuracy of this kind of information is not guaranteed.

In fact, the customer satisfaction survey (refer to 0) provides more useful and reliable information about the continuity of water supply, and implicitly the availability of idle capacity of the water supply system. There are three (sets of) questions in the customer satisfaction survey that probe for interrupted water supply:

- C4 & C5: Do you use other sources of water as an alternative to your piped PDAM water supply system? Answer: Yes ➔ What is the main reason to use alternative sources of water besides the piped PDAM water supply system? Answer: The supply of water is not continue.

  *Apakah anda menggunakan sumber air lainnya sebagai alternative sistem perpipaan PDAM? Ya ➔ Apakah alasan utama penggunaan sumber air lainnya selain air dari sistem perpipaan PDAM? Pasokan air – tidak kontinu.*

- C10: During (morning and afternoon) hours of peak (demand for water), do you receive sufficient water from the piped PDAM water supply system? Answer: No.

  *Pada saat pemakaian puncak (pagi dan sore hari), apakah anda mendapatkan pasokan air yang cukup dari PDAM perpipaan anda? Tidak.*

- C11 & C 12: In general, how satisfied are you with your piped PDAM water supply? Answer: Not satisfied (at all) ➔ What is the reason you are not satisfied with the PDAM water supply service? Answers: Water quantity: not sufficient to cover the need for water; continuity: water supply is not continue.

  *Secara umum, seberapa puaskah anda terhadap system pelayanan air PDAM? (Sangat) tidak puas ➔ Apakah yang menjadi alasan utama ketidak puasan anda terhadap system pelayanan air PDAM? Kuantitas air (tidak mencukupi kebutuhan); kontinuitas (pengaliran tidak lancar).*

Although the customer satisfaction survey will give excellent information whether the water supply system functions properly, it does not necessarily provide an explanation why service of supply is interrupted: production capacity can be too limited, but distribution and/or storage capacity as well.

***Throttling of valves***

Throttling of valves in order to "distribute" water to all consumers is a common practice of many PDAMs in Indonesia. Throttling of valves is a sign of a water supply system that is not functioning properly, and could be interpreted as an indication of a water supply system that lacks idle capacity. The practice is also applied by PDAMs to prevent pressures from getting too high and water pipes to burst. PDAMs also assert they want to "protect" in-house installations of consumers, which may not be able to

stand too high pressures. The fact that throttling of valves does not affect static pressures in the distribution network seems to be overlooked by PDAMs. In order for water pressures not to reach a level close to the static pressure, the night flows need to be substantial; and consequently physical leakage of the system as well. Differences between day and night flows can be expected to be relatively small.

### 5.3.2 Technical – connection standards water supply / sanitation

***Water Supply***

The water Hibah project implementation manual[12] requires that a service connection fulfils the quality standard in use by the PDAM, and refers to the technical standard issued by the Ministry of Public Works (PU) 13 and the national standards of Indonesia.14

The PU technical standard for water supply service connections relates to the pipe and accessories from the tapping from the distribution/reticulation pipe/main to, and including, the water meter. The function of the service connection is stated to be: (a) the supply of water from the distribution pipe to the house of the consumer, and (b) the measurement of the total amount of water supplied to the consumer. The required minimum accessories of a house connection are: the actual pipe tapping (clamp saddle), the water meter with a flow restrictor, a valve to close and allow the flow of water, and the connection pipe and fittings.

Aside from these general remarks regarding a service/house connection, the PU regulations do not provide any further specifications, or a schematic overview of the relative setup and measurements of a service connection. Consequently, PDAM have their own arrangements and typical layouts for service connections. During the verification of newly installed house connections, the availability of a water meters, valves and a tap near the meter is checked. Conditions as found in the field are indicated on Annexe 4a, form 1, water supply.

In general valves are installed before and after the meter, but exceptions on this rule are quite common. For instance, in Kabupaten Sidoarjo no valve is installed ahead of the meter, check valves are only installed after the meter; in contrast, in Kabupaten Wonogiri the check valve is installed before the water meter.

[12] Pedoman pengelolaan program hibah air minum

[13] Departemen Pekerjaan Umum, Direktorat Jenderal Cipta Karya, Peraturan Menteri Pekerjaan Umum, Nomor 18/PRT/M/2007, Tanggal 06 Juni 2007, tentang: Penyelenggaraan Pengembangan Sistem Penyediaan Air Minum

[14] Standar Nasional Indonesia (SNI)

***Sanitation***

The sanitation Hibah project implementation manual[15] has not established any quality standard for a sewage service connection. The customer satisfaction survey carried out in Banjarmasin indicated that the satisfaction level of the beneficiaries of sewage connections under the W&S Hibah program was rather disappointing. It is know that the physical conditions in Banjarmasin are challenging, but with the absence of technical standards for service connections, the effectiveness, efficiency and sustainability of the program is in doubt. In more common circumstances, such as in Surakarta, the satisfaction of beneficiaries has been much higher.

PDPAL Jakarta applied an ingenious system that allows it to "disconnect" non-paying customers from the sewage system. In the case of Banjarmasin, disconnection (or temporarily closing off) of customers is not that easy. It may be investigated if the system used by PDPAL Jakarta could be applied elsewhere as well.

## 5.4 RECOMMENDATIONS

***Formal request for verification by PDAM/PDPAL***

It is suggested that the PDAM/PDPAL issues the requests for verification of the installation of house connections by official (but standard) letter that states their readiness. In 2010, there was no formal notification by PDAM/PDPAL stating readiness for verification. Requests were conveyed verbally. In 2011, the approach was different. The procedural approach followed by PDAM Kota Jayapura can be considered as an example for other PDAMs.

***Use of GPS***

The verification process could be simplified if use was made during baseline and verification of the global positioning system (GPS) to more precisely determine the locations of the newly installed house connections.

***Sampling versus full verification***

In order to simplify the verification process, one may consider reverting to verification by sampling instead of requiring verification of each and every newly installed house connection. This would reduce the effort required for verification. On the other hand, one could consider involving higher qualified staff in order to get more meaningful and

[15] Pedoman pengelolaan program hibah air limbah

in-depth results. For example, the customer satisfaction survey provides more information about the actual conditions of the service of supply than the verification process.

***Idle capacity***

The procedure and criterion to determine whether a system has indeed idle capacity needs to be clarified. There are several options:

- Intensive discussions with operational staff of a PDAM: if executed by an experienced water supply engineer, this assignment can be done during a one-day visit to the PDAM[16]; this approach can be considered to have been applied with mixed success during the preparation of the current W&S Hibah scheme.
- Pressure measurements at critical locations in the water supply system; this option would require a visit by an experienced water supply engineer as well in order to determine the locations for pressure measurements.
- Survey of a random sample of existing customers, with several questions enquiring after the level of service, i.e. continuity, pressure/quantity of water supplied, embedded among other questions in order to reduce the chance of manipulation of results; if, for instance, 10percent of interviewees complain about the continuity of supply, or answer affirmative on related surrogate questions, the system were to be considered as not having idle capacity; proper setup and execution of the survey is a prerequisite that needs to be given sufficient attention if the outcome is to be a benchmark for including or excluding a specific water supply system or PDAM from the W&S Hibah scheme.

***Technical standard for house connection***

It is recommended establishing clearer technical guidelines and standard drawings on water supply and sewage connections. Either DGHS or Perpamsi can take the lead in this respect.

[16] To certain extent dependent on the number of water supply systems to be covered

# CHAPTER 6: PROGRESS REVIEW

## 6.1 OBJECTIVES

A mid term review of the progress of the implementation of the Water and Sanitation (W&S) Hibah program was demanded of the Consultant by the end of the year 2010. This would allow the executive authority, DGHS-CPMU, and AusAID-IndII, if necessary, to decide on reallocation of house connection quota granted to local governments (LGs) depending on performance. It would also allow CPMU and IndII to identify LGs and their PDAM/PDPAL capable of realising additional allocations of house connections before the scheduled expiration of the project on 30 June 2011.

## 6.2 METHODOLOGY

### 6.2.1 Urgent simplified progress review

Because the Consultant was only appointed in November 2010 and the mid-term review of the W&S Hibah program was due by the end of that year, a simplified approach had to be taken.

Information on the progress of installation of HCs by batch-1 LGs by the end of 2010 was (a) provided directly by the LGs, (b) compiled by the Consultant during a simplified assessment visit of 15 selected LGs in December 2010 and (c) channelled via regular information and data provision by the Consultant's regional coordinators to the 'home base'.

The results of the progress review were submitted informally to DGHS-CPMU and IndII in December 2010 and formally in the Mid-term Review Report, dated 30 January 2011.

### 6.2.2 Regular progress review

The Consultant has prepared regular overviews of the status of the implementation of the installation of water and wastewater house connections for the initial and additional allocations of batch-1 and batch-2 local governments. These overviews have been presented in coordination meetings with DGHS-CPMU and IndII.

## 6.3 GENERAL RESULTS

### 6.3.1 Urgent simplified progress review

***Simplified progress assessment***

The visits that were paid to selected LGs provided very useful information regarding practical constraints experienced by PDAM/PDPAL with the implementation of the W&S Hibah program. In many cases the simplified assessment also helped the Consultant to streamline the verification process in close coordination with PDAM/PDPAL. It provided some of the PDAM/PDPAL with better understanding how to prepare them selves ahead of the actual verification.

***Outcomes of progress review***

Table-19 provides an overview of the numbers of house connections installed by the batch-1 LGs and technically verified by the Consultant by 31 December 2010. The administrative verification that was executed by the Ministry of Finance (MoF) at the end of December 2010, resulted in disbursements of grant funds to all but one of the 14 LGs that underwent technical verification of newly installed house connections in 2010. Kota Pekalongan's application was rejected by MoF because the local regulation (Perda) to provide equity to the PDAM was at odds with the administrative requirements.

A dozen LGs received grant funds of the W&S Hibah program for installation of water supply connections in 2010: Kota Palembang, Kabupaten Serang, Kabupaten Ciamis, Kabupaten Karawang, Kabupaten Kuningan, Kabupaten Garut, Kabupaten Wonosobo, Kabupaten Wonogiri, Kabupaten Klaten, Kabupaten Jombang and Kota Malang. In addition, Kota Surakarta was reimbursed for installation of sewage connections.

Five batch-1 local governments had completed the installation and verification of all targeted house connections by the end of 2010: Kabupaten Serang, Kabupaten Karawang, Kabupaten Wonosobo, Kabupaten Klaten and Kota Surakarta.

Of the 44,900 house connections initially targeted by the 25 batch-1 LGs, 61percent was installed at the end of 2010 and 40percent had been verified by that time. Many of the LGs were confident that they would be able to reach the set targets for HCs installation before the deadline of 30 June 2011. Delays at the time were related to (a) technical matters such as supply of accessories required for network (tertiary pipes) extensions and service connections, and (b) deviations from the baseline surveys' proposed service areas in order to expedite implementation and focus on areas with reliable service of supply. In some cases delays were related to the delays of local governments' equity contribution to the PDAM/PDPAL. As a result of technical and administrative problems, PDAM Kabupaten Ciamis and PDAM Kabupaten Kudus expected to experience problems reaching the set targets of the W&S Hibah scheme by

the deadline of 15 June 2011. Eventually, eleven local governments received 15,900 additional allocations for house connections to install: details are provided in Table-8.

### 6.3.2 Regular progress review

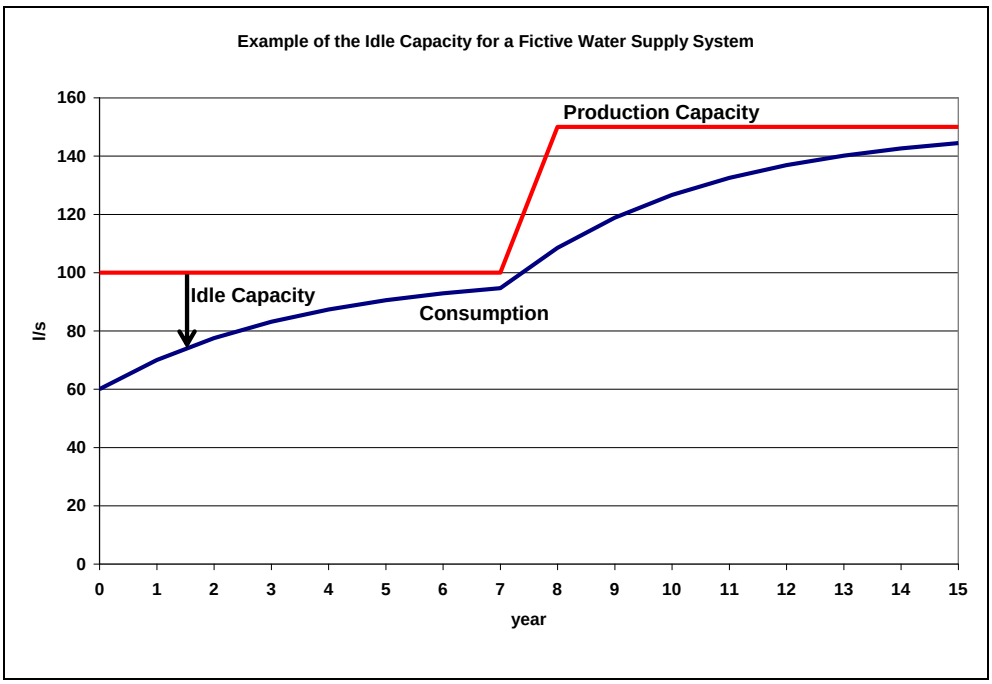
The overviews that have been submitted to DGHS-CPMU and IndII on regular basis, contained the overview information per LGs as presented in Table-20, Table-21 and Table- 22, and additional details. An example is the regular progress reporting is compiled in **Annexe 5**.

## 6.4 RECOMMENDATIONS

***Limited scope***

The W&S Hibah has been reasonably effective program increasing the efficiency of existing water system systems by adding service connections. As the program does not directly invest in production and major distribution infrastructure, its scope is limited and its initial successes cannot be expected to last, unless additional (production) capacity is created. This is illustrated in Figure 12 below.

**Figure 12: Illustration of the limited scope of the W&S Hibah program if no production capacity is added**




It should be mentioned that PDAM/PDPAL view the W&S Hibah program as a service connections subsidy program. PDAM/PDPAL do not have the perception that the funds

received under the program are also to intended to (a) support the improvement of the distribution network if necessary to enhance service and (b) add additional production capacity.

The W&S Hibah scheme indirectly improves the financial viability of major investments in production and distribution facilities by the local water utilities. Awareness needs to be created how the program can contribute to major expansions of water supply systems.

***Aligning with GoI budget cycle***

From planning perspective, it would be better if the W&S Hibah program were aligned with the annual budget cycle of the Government of Indonesia, which runs on the basis of calendar years from January to December.

***Multi-year program***

If PDAM/PDPAL could rely on a program that would be in place for multiple years, they would be able to build on previous experience and could be expected to become increasingly efficient in the implementation of the program. In fact, this learning curve effect has already become evident in the increased efficiency with which the additional allocations of service connections were identified, installed and verified.

For reasons of efficiency and institutional capacity PDAM Kabupaten Cilacap addressed and socialised the opportunity provided by the water Hibah scheme for subsidised water connections of MBR households in only one of the kecamatan it is serving. The PDAM expressed a willingness to roll-out the program to other kecamatan, if more time would be available. PDAM Cilicap would also be willing to add additional production capacity to more a larger customer base.

If the Water and Sanitation Hibah program were a multi-year program, PDAM/PDPAL could rely on the financing of the program as a source of funding and take this into account when preparing annual investment plans. The ad-hoc status of the current W&S Hibah program is limiting its potential. Moreover, it can be considered as the cause of last minute[17] changes of allocations of house connections to be installed from LGs that did not manage to achieve their targets to LGs that were eager to add more connections. On the other hand, a deadline of 30 June 2011 may have sped up some PDAM/PDPAL realising their targets.

If AusAID-IndII is not in a position to accommodate an extension of the program, DGHS should consider extending the program via other channels. The longer the program

[17] Second half of June 2011

can be guaranteed, the more PDAMs will be able to rely on it, and the more successful it can be expected to be, if adequate attention is paid by the stakeholders to adding additional production and distribution capacity as discussed above.

# CHAPTER 7: CUSTOMER SATISFACTION SURVEY

## 7.1 OBJECTIVES

The main objective of the customer satisfaction survey was to determine the actual level of satisfaction of the beneficiaries of the water and wastewater connections under the Water and Sanitation (W&S) Hibah program.

## 7.2 METHODOLOGY

Sample sizes

The customer satisfaction survey was based on a cross-sectional survey design. The survey was carried out on the basis of a sample of 7,000 households that have been beneficiary of the Water and Sanitation Hibah program for installation of house connections to the piped PDAM water supply system or a sewage system operated by PDAM or PDPAL. Batch-1 local governments had initial targets for 42,300 water connections and 2,600 sewerage connections. Seven thousand (7,000) connections were considered the equivalent of 15percent of the total number of connections for batch-1 LGs.

Sample sizes per batch-1 local government were chosen and ranged from 13.6percent (Kabupaten Bogor) to 15.0percent (half a dozen LGs) of the targeted numbers of new water supply service connections to be installed. In the two local governments of batch-1 with targets of only 500 service connections, i.e. Kota Pekalongan and Kabupaten Lombok Timur, sample sizes of 75 (15percent) were set. In case of targets for batch-1 LGs on sanitation, higher levels of samples for the customer satisfaction survey were chosen: in Kota Surakarta 350 (87.5percent) of the beneficiaries of the 400 new sewerage connections were interviewed, in Kota Banjarmasin 600 (30percent) of the 2,000[18] beneficiaries and in Kota Balikpapan 30 (15.0percent) of the 200 beneficiaries.

On the basis of the addendum to the contract to cover (a) the verification of the initial allocations of service connections of the 15 batch-2 LGs and (b) the baseline survey and verification of the additional allocations granted to selected LGs, sample sizes of 14percent of the initial allocations per batch-2 LG were agreed upon.

In the case of batch-2 local governments samples for the customer satisfaction survey were based on the initial and the additional allocations of service connections. Only two LGs received additional allocations for water supply connections: Kabupaten

[18] Eventually only 1,220 of the 2,000 targeted sewerage connections were realised by PDPAL Kota Banjarmasin

Sidoarjo and Kota Banjarmasin. The June 2011 final reallocation of targets for service connections has not been reflected in the numbers of beneficiaries surveyed, although Kabupaten Muara Enim and Kabupaten Kapuas received each 500 additional service connections. No surveys have been carried out in Kabupaten Lampung Utara, which failed to install the allocated 700 service connections and Kabupaten Situbondo, which withdrew itself from the W&S Hibah program.

In general samples for the CSS in batch-2 LGs were set at 14percent of the initial and additional targets of (18,700 +3,500 =) 22,200 service connections. As mentioned, no beneficiaries were interviewed in Kabupaten Muara Enim and Kabupaten Lampung Utara. The sample of beneficiaries of the 5,000 new water supply connections in Kota Banjarmasin was limited to 10percent, or 500 interviewees. Also, the samples of beneficiaries of sewerage connections in DKI Jakarta and Kota Bandung was slightly less than 14percent, i.e. respectively 11percent and 13percent.

Overviews of the targeted sample sizes for batch-1 and batch-2 local governments with respect to the customer satisfaction surveys are given in Table-27 and Table-28.

**Table 27: Sample sizes customer satisfaction surveys (CSS) batch-1 LGs**

| No. | Local Governments | HC Target Initial # | Sample size CSS Initial allocation | |
|---|---|---|---|---|
| | | | # | % |
| 1 | Kota Palembang | 4,000 | 550 | 13.8% |
| 2 | Kab. Serang | 2,000 | 300 | 15.0% |
| 3 | Kab. Ciamis | 3,000 | 425 | 14.2% |
| 4 | Kab. Karawang | 3,000 | 425 | 14.2% |
| 5 | Kab. Kuningan | 2,650 | 375 | 14.2% |
| 6 | Kab. Bogor | 3,500 | 475 | 13.6% |
| 7 | Kota Bogor | 1,000 | 150 | 15.0% |
| 8 | Kab. Garut | 2,650 | 375 | 14.2% |
| | *Sub-total* | *21,800* | *3,075* | *14.1%* |
| 9 | Kab. Wonosobo | 2,500 | 350 | 14.0% |
| 10 | Kab. Wonogiri | 2,000 | 275 | 13.8% |
| 11 | Kab. Klaten | 3,000 | 425 | 14.2% |

| No. | Local Governments | | HC Target Initial # | Sample size CSS Initial allocation | |
|---|---|---|---|---|---|
| | | | | # | % |
| 12 | Kab. | Cilacap | 1,300 | 195 | 15.0% |
| 13 | Kab. | Boyolali | 1,150 | 170 | 14.8% |
| 14 | Kab. | Kudus | 1,000 | 150 | 15.0% |
| 15 | Kota | Pekalongan | 500 | 75 | 15.0% |
| | | *Sub-total* | *11,450* | *1,640* | *14.3%* |
| 16 | Kab. | Bangkalan | 1,100 | 165 | 15.0% |
| 17 | Kab. | Jombang | 1,200 | 180 | 15.0% |
| 18 | Kota | Malang | 2,000 | 275 | 13.8% |
| 19 | Kab. | Lombok Timur | 500 | 75 | 15.0% |
| | | *Sub-total* | *4,800* | *695* | *14.5%* |
| 20 | Kab. | Banjar | 2,000 | 275 | 13.8% |
| 21 | Kota | Banjarbaru | 1,500 | 225 | 15.0% |
| 22 | Kot | Palangkaraya | 750 | 110 | 14.7% |
| | | *Sub-total* | *4,250* | *610* | *14.4%* |
| | | ***Total Water HCs*** | ***42,300*** | ***6,020*** | ***14.2%*** |
| 23 | Kota | Surakarta | 400 | 350 | 87.5% |
| | | *Sub-total* | *400* | *350* | *87.5%* |
| 24 | Kota | Banjarmasin | 2,000 | 600 | 30.0% |
| 25 | Kota | Balikpapan | 200 | 30 | 15.0% |
| | | *Sub-total* | *2,200* | *630* | *28.6%* |
| | | ***Total Sanitation HCs*** | ***2,600*** | ***980*** | ***37.7%*** |
| | | **Grand Total HCs** | **44,900** | **7,000** | **15.6%** |

**Table 28: Sample sizes customer satisfaction surveys (CSS) batch-2 LGs**

| No. | Local Governments | | HC Target Ini. & Add. | Sample size CSS Initial & Additional | |
|---|---|---|---|---|---|
| | | | # | # | % |
| 1 | Kota | Padang | 1,500 | 210 | 14.0% |
| 2 | Kab. | Muara Enim | 1,000 | 140 | 14.0% |
| 3 | Kab. | Lampung Utara | 700 | 0 | 0.0% |
| 4 | Kab. | Pandeglang | 1,000 | 140 | 14.0% |
| 5 | Kab. | Cianjur | 1,000 | 140 | 14.0% |
| 6 | Kab. | Sukoharjo | 1,000 | 140 | 14.0% |
| | | *Sub-total* | *6,200* | *770* | *12.4%* |
| 7 | Kab. | Sidoarjo | 5,000 | 700 | 14.0% |
| 8 | Kab. | Situbondo | 1,000 | 0 | 0.0% |
| 9 | Kota | Jayapura | 500 | 70 | 14.0% |
| 10 | Kab. | Kapuas | 500 | 70 | 14.0% |
| 11 | Kota | Banjarmasin | 5,000 | 500 | 10.0% |
| 12 | Kota | Balikpapan | 1,000 | 140 | 14.0% |
| 13 | Kab. | Donggala | 1,000 | 140 | 14.0% |
| | | *Sub-total* | *14,000* | *1,620* | *11.6%* |
| | | ***Total Water HCs*** | ***20,200*** | ***2,390*** | ***11.8%*** |
| 14 | DKI | Jakarta | 500 | 55 | 11.0% |
| 15 | Kota | Bandung | 1,500 | 195 | 13.0% |
| | | *Sub-total* | *2,000* | *250* | *12.5%* |
| | | ***Total Sanitation HCs*** | ***2,000*** | ***250*** | ***12.5%*** |

| No. | Local Governments | HC Target Ini. & Add. | Sample size CSS Initial & Additional | |
|---|---|---|---|---|
| | | # | # | % |
| | Grand Total HCs | 22,200 | 2,640 | 11.9% |

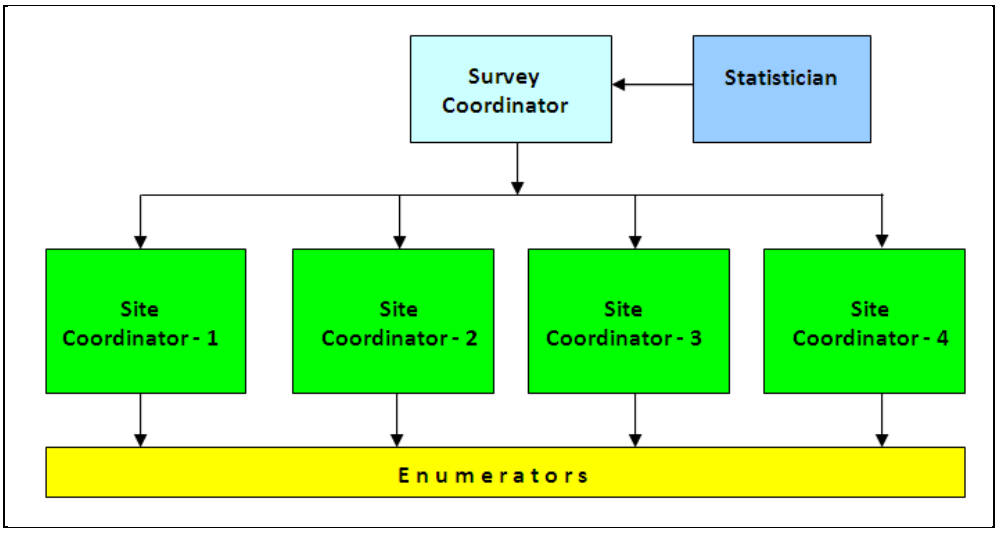
***Questionnaires***

The customer satisfaction survey questionnaires – one for beneficiaries of water supply connections, the other for beneficiaries of sewerage connection – were developed by IndII. Prior to the actual implementation of the survey, draft of the questionnaires were discussed with the Consultant. Subsequent to the execution of (parts of) the surveys in batch-1 local governments, the questionnaire were adjusted on request of IndII by adding several sub-questions in order to get more insight in the answers given by respondents on some questions. The revised questionnaires for water supply and sanitation are included in **Annexe 6**.

***Organisational structure***

The organisational structure of the customer satisfaction survey is depicted in Figure 13. The overall management of the survey was the responsibility of the survey coordinator. Guidance on data compilation and entry was provided by the statistician who also took care of data analysis and basic reporting. At local government level, field coordinators were responsible for the management of the enumerators and the proper implementation of the customer satisfaction surveys. Enumerators selected to conduct the customer satisfaction surveys were university students or representatives of local communities with ample experience in the implementation of surveys via questionnaires.

**Figure 13: Organisation structure of the customer satisfaction survey**




***Briefing***

One-day briefings for enumerators were conducted respectively in Bandung, Banjarmasin and Yogyakarta. The main objective of the briefings was to create adequate understanding of the enumerators on the objectives of the survey and the exact meaning of the questions posed by the questionnaires. Interview simulations among enumerators were carried out at the end of briefing sessions in order to verify and strengthen their understanding.

***Data collection and processing***

Information was gathered through direct interviews of selected beneficiaries at their home.

The actual customer satisfaction surveys started on 10 February 2011 and were only completed in August 2011.

EPI Info software was used for data entry. Data was analysed with the Statistical Package for Social Science (SPPS), version 13.5.

## 7.3 GENERAL RESULTS

Detailed results of the customer satisfaction survey are compiled in **Annexe 7**.

### 7.3.1 Level of satisfaction of beneficiaries with PDAM/PDPAL service

The general level of satisfaction of beneficiaries with the public services received via the newly installed service connections for water supply and sewerage is indicated in Table-29 for batch-1 and Table-30 for batch-2 local governments.

**Table 29: Level of satisfaction with PDAM/PDPAL services; batch-1, initial allocation of HCs**

| No. | Local Governments | HC Target | Sample size CSS | | Actual surveys | | Satisfied | |
|---|---|---|---|---|---|---|---|---|
| | | # | # | % | # | % | # | % |
| 1 | Kota Palembang | 4,000 | 550 | 13.8% | 549 | 99.8% | 549 | 100.0% |
| 2 | Kab. Serang | 2,000 | 300 | 15.0% | 316 | 105.3% | 316 | 100.0% |
| 3 | Kab. Ciamis | 3,000 | 425 | 14.2% | 440 | 103.5% | 440 | 100.0% |
| 4 | Kab. Karawang | 3,000 | 425 | 14.2% | 424 | 99.8% | 424 | 100.0% |
| 5 | Kab. Kuningan | 2,650 | 375 | 14.2% | 365 | 97.3% | 363 | 99.5% |
| 6 | Kab. Bogor | 3,500 | 475 | 13.6% | 468 | 98.5% | 468 | 100.0% |
| 7 | Kota Bogor | 1,000 | 150 | 15.0% | 234 | 156.0% | 234 | 100.0% |
| 8 | Kab. Garut | 2,650 | 375 | 14.2% | 372 | 99.2% | 364 | 97.8% |
| | *Sub-total* | *21,800* | *3,075* | *14.1%* | *3,168* | *103.0%* | *3,158* | *99.7%* |
| 9 | Kab. Wonosobo | 2,500 | 350 | 14.0% | 352 | 100.6% | 344 | 97.7% |
| 10 | Kab. Wonogiri | 2,000 | 275 | 13.8% | 276 | 100.4% | 266 | 96.4% |
| 11 | Kab. Klaten | 3,000 | 425 | 14.2% | 427 | 100.5% | 409 | 95.8% |
| 12 | Kab. Cilacap | 1,300 | 195 | 15.0% | 198 | 101.5% | 197 | 99.5% |
| 13 | Kab. Boyolali | 1,150 | 170 | 14.8% | 222 | 130.6% | 218 | 98.2% |
| 14 | Kab. Kudus | 1,000 | 150 | 15.0% | 152 | 101.3% | 152 | 100.0% |
| 15 | Kota Pekalongan | 500 | 75 | 15.0% | 76 | 101.3% | 76 | 100.0% |
| | *Sub-total* | *11,450* | *1,640* | *14.3%* | *1,703* | *103.8%* | *1,662* | *97.6%* |

| No. | Local Governments | HC Target | Sample size CSS | | Actual surveys | | Satisfied | |
|---|---|---|---|---|---|---|---|---|
| | | # | # | % | # | % | # | % |
| 16 | Kab. Bangkalan | 1,100 | 165 | 15.0% | 165 | 100.0% | 163 | 98.8% |
| 17 | Kab. Jombang | 1,200 | 180 | 15.0% | 180 | 100.0% | 170 | 94.4% |
| 18 | Kota Malang | 2,000 | 275 | 13.8% | 275 | 100.0% | 275 | 100.0% |
| 19 | Kab. Lombok Timur | 500 | 75 | 15.0% | 75 | 100.0% | 74 | 98.7% |
| | *Sub-total* | *4,800* | *695* | *14.5%* | *695* | *100.0%* | *682* | *98.1%* |
| 20 | Kab. Banjar | 2,000 | 275 | 13.8% | 150 | 54.5% | 136 | 90.7% |
| 21 | Kota Banjarbaru | 1,500 | 225 | 15.0% | 234 | 104.0% | 230 | 98.3% |
| 22 | Kota Palangkaraya | 750 | 110 | 14.7% | 110 | 100.0% | 89 | 80.9% |
| | *Sub-total* | *4,250* | *610* | *14.4%* | *494* | *81.0%* | *455* | *92.1%* |
| | ***Total Water HCs*** | ***42,300*** | ***6,020*** | ***14.2%*** | ***6,060*** | ***100.7%*** | ***5,957*** | ***98.3%*** |
| 23 | Kota Surakarta | 400 | 350 | 87.5% | 350 | 100.0% | 330 | 94.3% |
| | *Sub-total* | *400* | *350* | *87.5%* | *350* | *100.0%* | *330* | *94.3%* |
| 24 | Kota Banjarmasin | 2,000 | 600 | 30.0% | 597 | 99.5% | 298 | 49.9% |
| 25 | Kota Balikpapan | 200 | 30 | 15.0% | 30 | 100.0% | 26 | 86.7% |
| | *Sub-total* | *2,200* | *630* | *28.6%* | *627* | *99.5%* | *324* | *51.7%* |
| | ***Total Sanitation HCs*** | ***2,600*** | ***980*** | ***37.7%*** | ***977*** | ***99.7%*** | ***654*** | ***66.9%*** |
| | **Grand Total HCs** | **44,900** | **7,000** | **15.6%** | **7,037** | **100.5%** | **6,611** | **93.9%** |

**Table 30: Level of satisfaction with PDAM/PDPAL services; batch-2, initial and additional allocation of HCs**

| No. | Local Governments | HC Target | Sample size CSS | | Actual surveys | | Satisfied | |
|---|---|---|---|---|---|---|---|---|
| | | # | # | % | # | % | # | % |
| 1 | Kota Padang | 1,500 | 210 | 14.0% | 200 | 95.2% | 192 | 96.0% |
| 2 | Kab. Muara Enim | 1,000 | 140 | 14.0% | 138 | 98.6% | 129 | 93.5% |
| 3 | Kab. Lampung Utara | 700 | 0 | 0.0% | 0 | | 0 | |
| 4 | Kab. Pandeglang | 1,000 | 140 | 14.0% | 141 | 100.7% | 140 | 99.3% |
| 5 | Kab. Cianjur | 1,000 | 140 | 14.0% | 140 | 100.0% | 129 | 92.1% |
| 6 | Kab. Sukoharjo | 1,000 | 140 | 14.0% | 141 | 100.7% | 141 | 100.0% |
| | *Sub-total* | *6,200* | *770* | *12.4%* | *760* | *98.7%* | *731* | *96.2%* |
| 7 | Kab. Sidoarjo | 5,000 | 700 | 14.0% | 707 | 101.0% | 636 | 90.0% |
| 8 | Kab. Situbondo | 1,000 | 0 | 0.0% | 0 | | 0 | |
| 9 | Kota Jayapura | 500 | 70 | 14.0% | 72 | 102.9% | 72 | 100.0% |
| 10 | Kab. Kapuas | 500 | 70 | 14.0% | 71 | 101.4% | 70 | 98.6% |
| 11 | Kota Banjarmasin | 5,000 | 500 | 10.0% | 504 | 100.8% | 501 | 99.4% |
| 12 | Kota Balikpapan | 1,000 | 140 | 14.0% | 141 | 100.7% | 137 | 97.2% |
| 13 | Kab. Donggala | 1,000 | 140 | 14.0% | 138 | 98.6% | 134 | 97.1% |
| | *Sub-total* | *14,000* | *1,620* | *11.6%* | *1,633* | *100.8%* | *1,550* | *94.9%* |
| | ***Total Water HCs*** | ***20,200*** | ***2,390*** | ***11.8%*** | ***2,393*** | ***100.1%*** | ***2,281*** | ***95.3%*** |
| 14 | DKI Jakarta | 500 | 55 | 11.0% | 55 | 100.0% | 53 | 96.4% |
| 15 | Kota Bandung | 1,500 | 195 | 13.0% | 195 | 100.0% | 165 | 84.6% |
| | *Sub-total* | *2,000* | *250* | *12.5%* | *250* | *100.0%* | *218* | *87.2%* |
| | ***Total Sanitation HCs*** | ***2,000*** | ***250*** | ***12.5%*** | ***250*** | ***100.0%*** | ***218*** | ***87.2%*** |

| No. | Local Governments | HC Target | Sample size CSS | | Actual surveys | | Satisfied | |
|---|---|---|---|---|---|---|---|---|
| | | # | # | % | # | % | # | % |
| | Grand Total HCs | 22,200 | 2,640 | 11.9% | 2,643 | 100.1% | 2,499 | 94.6% |

In general the level of satisfaction with the services of the piped PDAM water supply is very good reaching 98percent in batch-1 LGs and 95percent in batch-2 LGs. The satisfaction with the sewage connections in Surakarta (94percent), Bandung (85percent) and Jakarta (96percent) is also good, but beneficiaries in Banjarmasin are much less pleased with the service of the PDPAL. Beneficiaries of sewage connections in Banjarmasin complain in particular about smell, blockages and the level of the monthly bills from the PDPAL.

### 7.3.2 Respondents

About 57percent of the respondents who received new water supply connections were heads of households, in comparison to 51percent in case of those who were connected to the sewerage system: see Figure 14. Heads of households are generally male, as 63percent of the water supply respondents were male. In the case of wastewater, respondents were close to fifty-fifty male (54percent) and female (46percent): see

Figure 15. In the case of Kota Banjarmasin, 69percent of the respondents who received a sewage connection were female, while in Kota Surakarta only 23percent were female. The stark contrast is explained by cultural difference between both cities. A question is whether there is a relation between the number of female respondents in Banjarmasin and the relatively high level of dissatisfaction with the wastewater services. Women are generally more closely involved with aspects of family hygiene. The ranges of age of respondents and the highest level of education reached by respondents are depicted in

Figure 16 and

Figure 17.

**Figure 14: Position of respondent in household**

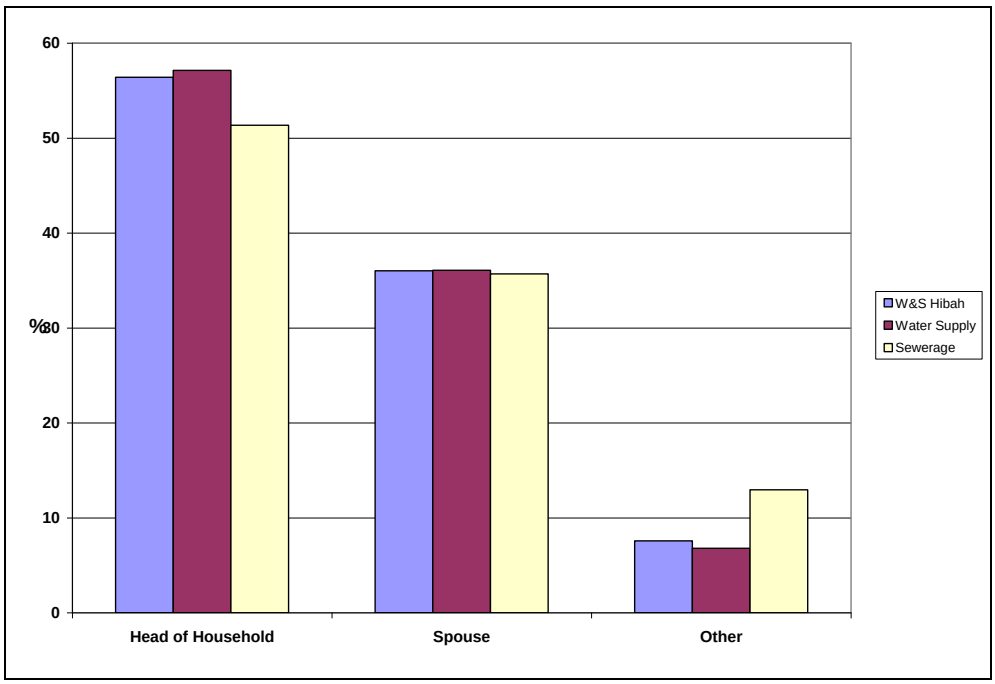


**Figure 15: Sex of respondent**

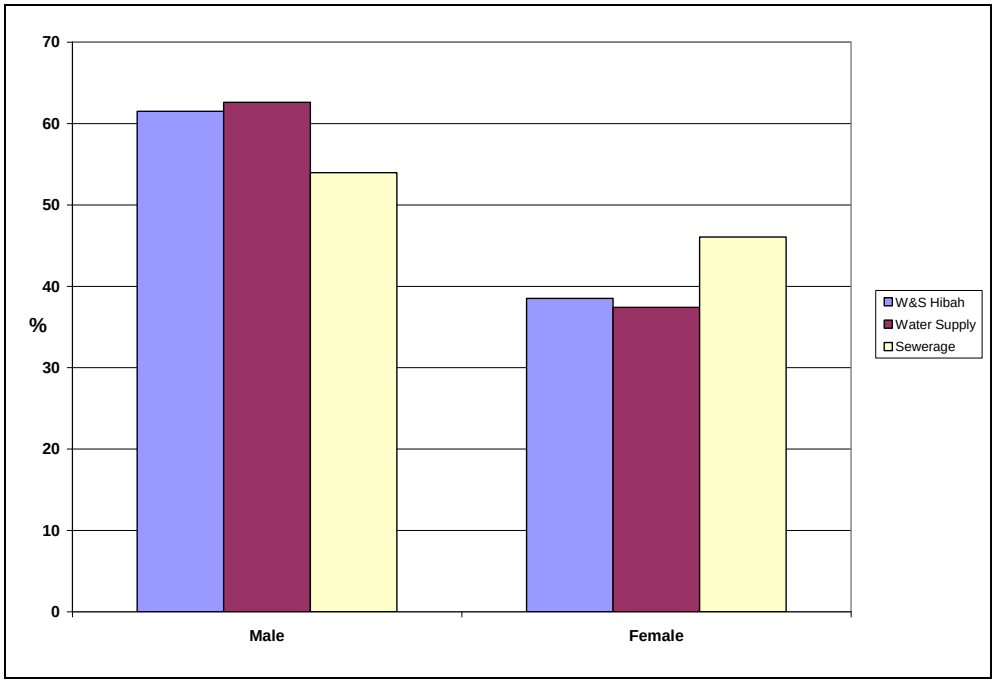



**Figure 16: Ranges of age of respondents**

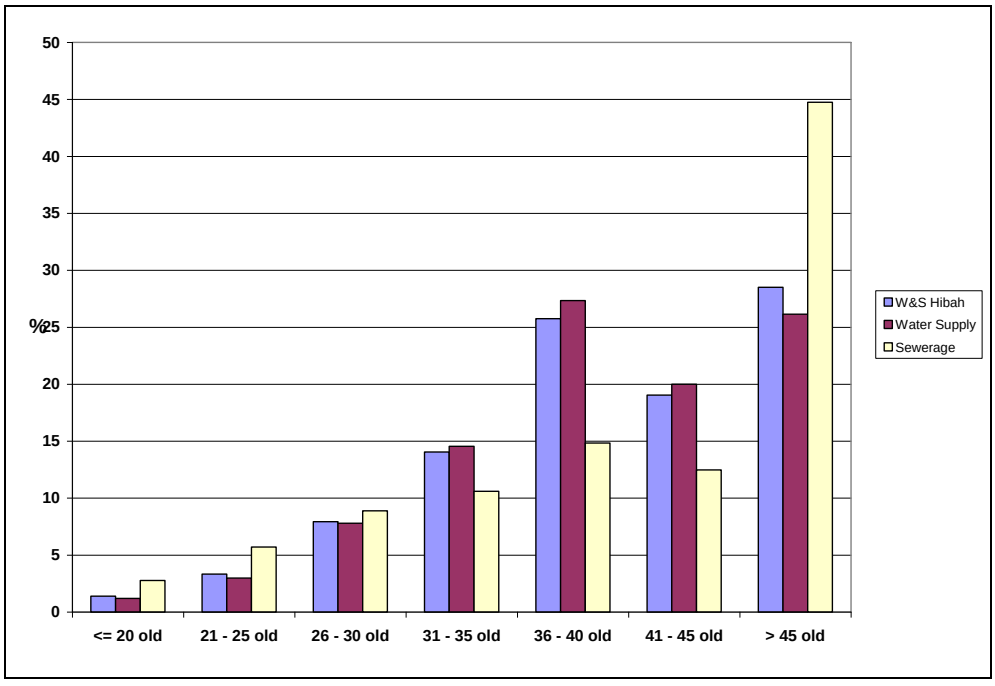
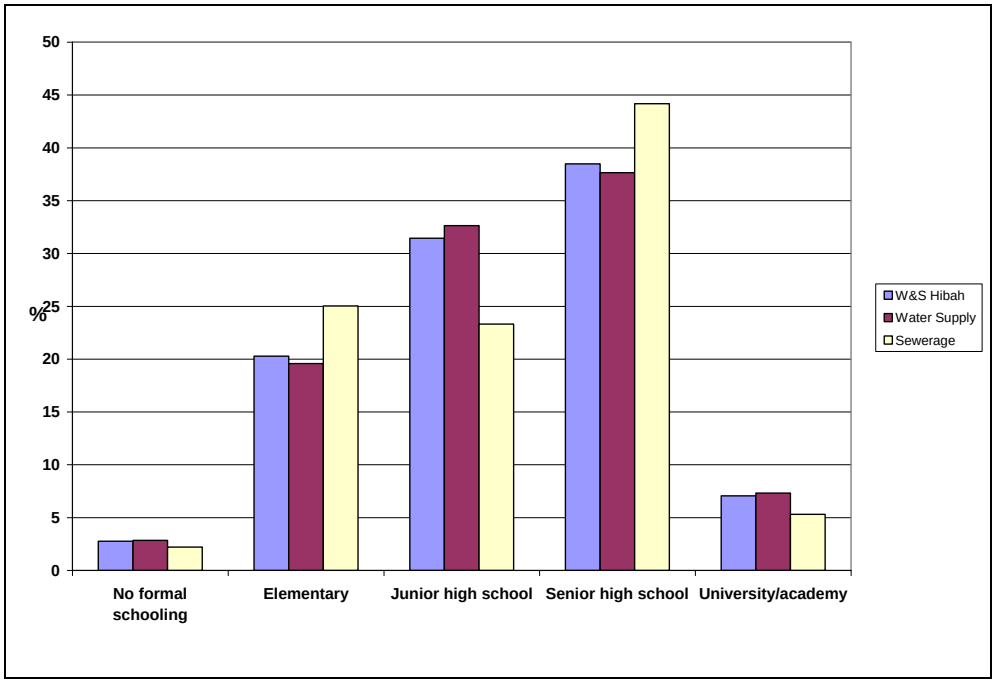


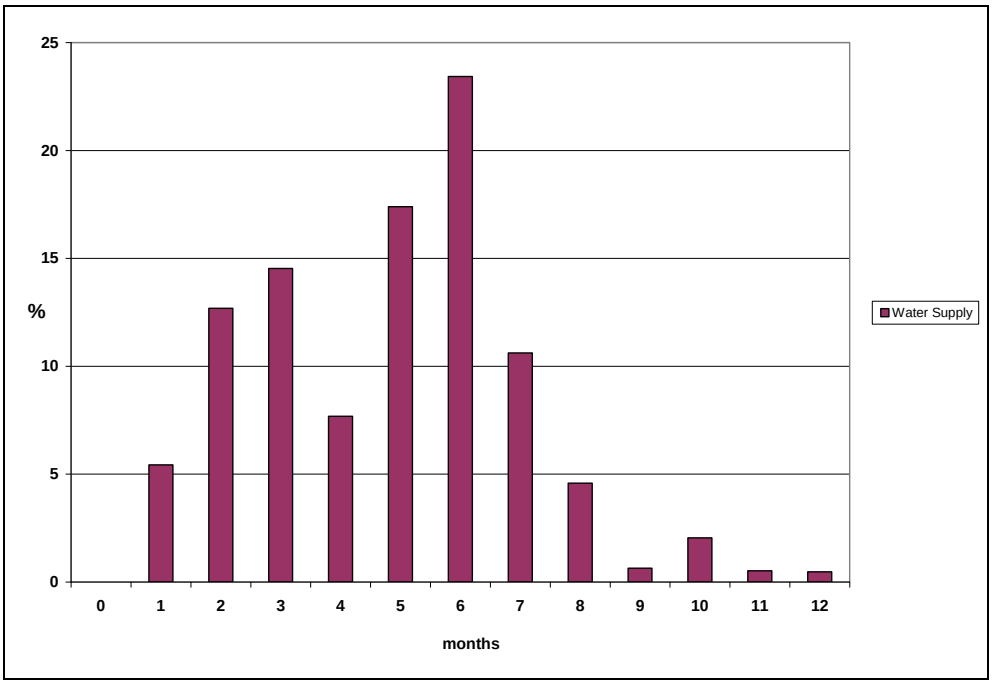
**Figure 17: Level of education of respondents**




### 7.3.3 Water supply results

Figure 18 indicates the number of months that had passed at the time of the interview since the installation of the water supply service connection.

**Figure 18: Time passed since installation of water supply house connection**



Ninety-five percent of the respondents rate the quality of the new piped PDAM water supply better than their previous prime source of water. Far less than 1 percent of the beneficiaries interviewed considered the quality of service of the PDAM worse. The remaining 4percent did not experience a difference. The PDAM water is used by the respondents for purposes as indicated in Figure 19. Perceived benefits of using PDAM water are depicted in

Figure 20.

A third of the respondents use other sources of water in addition to the PDAM water. The main reasons to do so are frequent supply interruptions and cost considerations. Only one out of ten respondents still uses an alternative source of water because of concerns about the quality of the PDAM water.

Figure 21 provides an overview of the fees charged by PDAMs for house connections under the W&S Hibah program. Sixty percent of the beneficiaries paid IDR 500,000 or less for a connection; 10percent less than IDR 120,000. Sixteen percent was charged more than one million Rupiah. The highest connection fee was IDR 1,500,000. About 47percent of the respondents paid the total fee in cash before being connected, 11percent afterwards. Forty percent had to make a down payment and cover the remaining part in monthly instalments. One percent of the beneficiaries did not need to pay at all for the house connections. Overviews of the down payment amounts and the number of months of instalment are presented in

Figure 22 and

Figure 23. More than 80percent of the beneficiaries on an instalment scheme had to make down payments of IDR 250,000 or less, and 40percent of IDR 50,000 or less. Three out of four beneficiaries on instalments had not more than ten monthly instalments to cover.

**Figure 19: Uses of PDAM water**

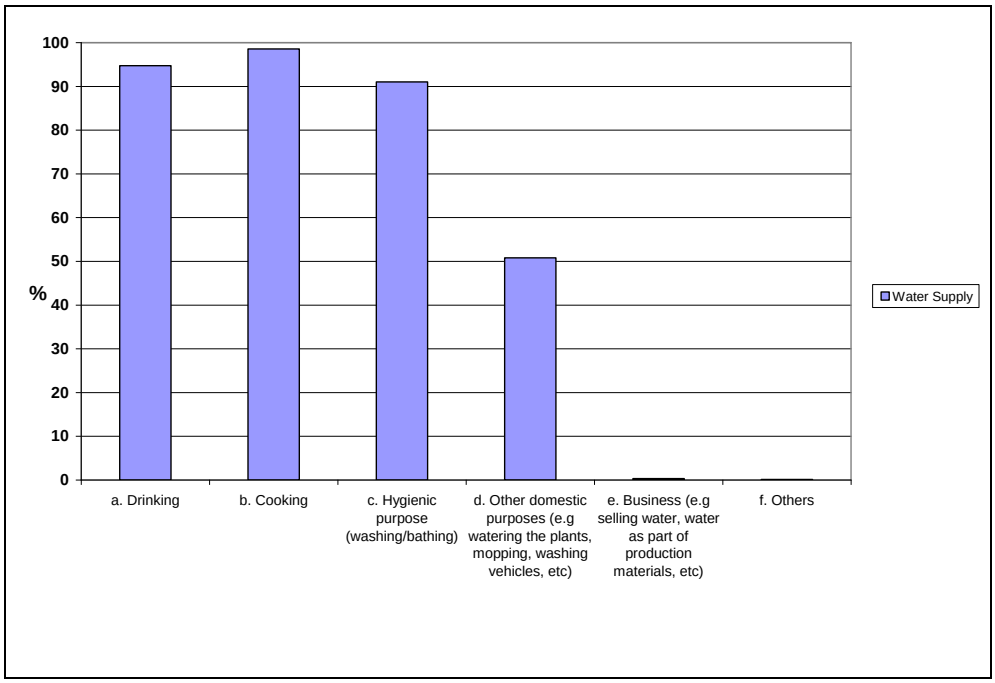



**Figure 20: Perceived benefits of PDAM water**

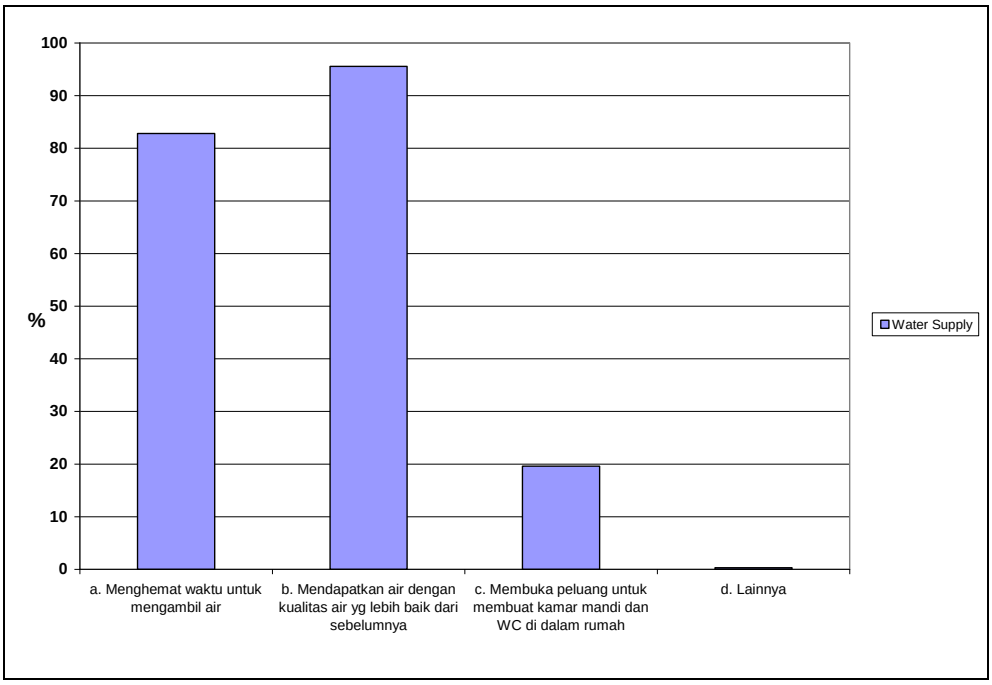



**Figure 21: Connection fees for house connections**

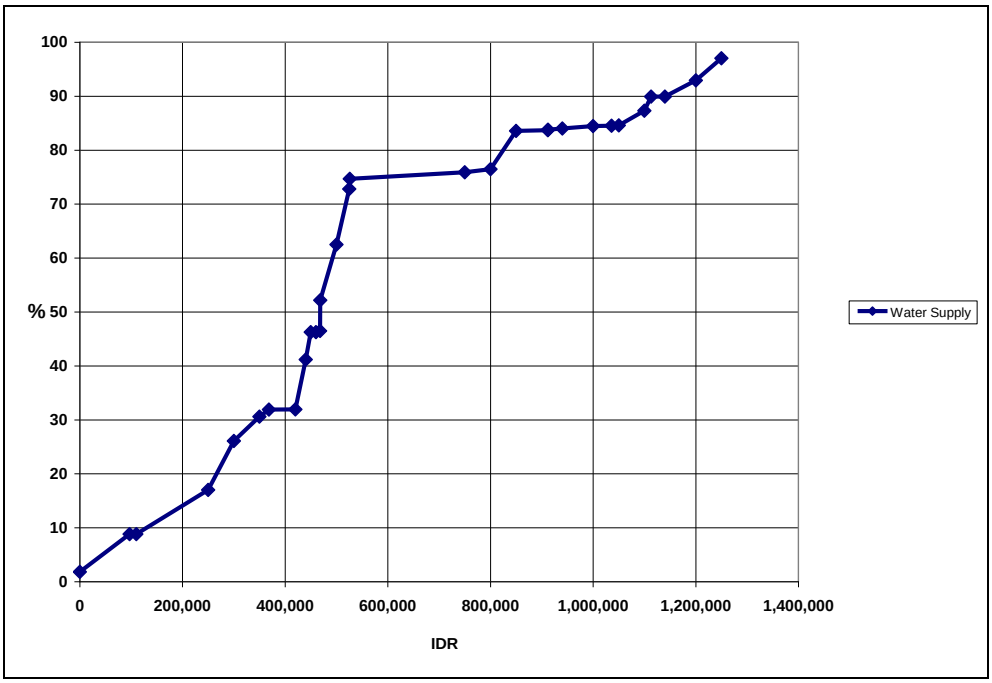



**Figure 22: Down payments for house connections (in case of instalments)**

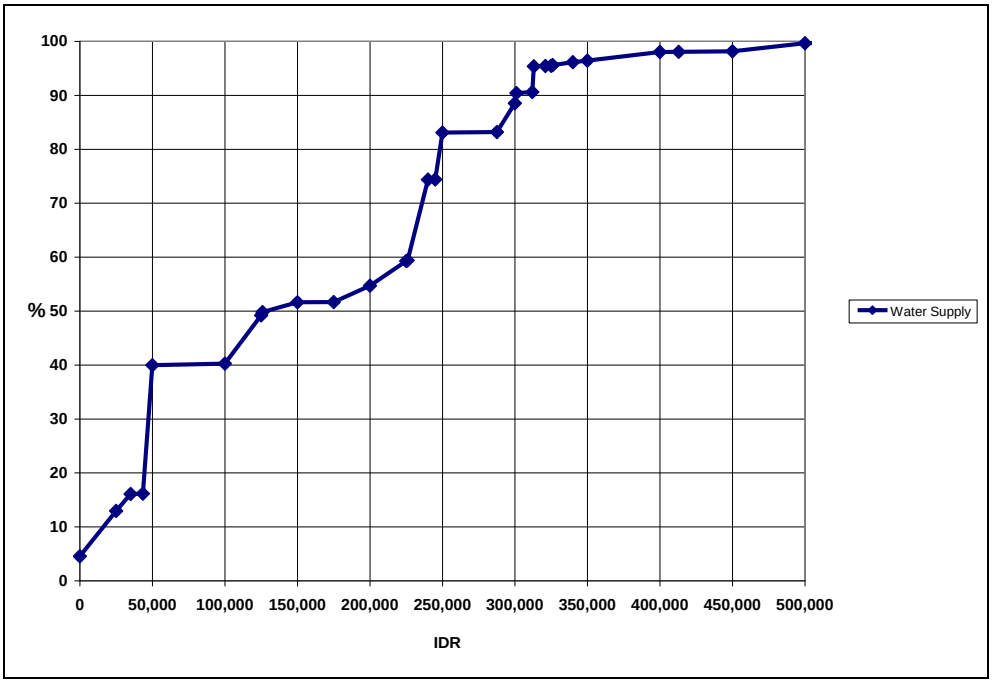
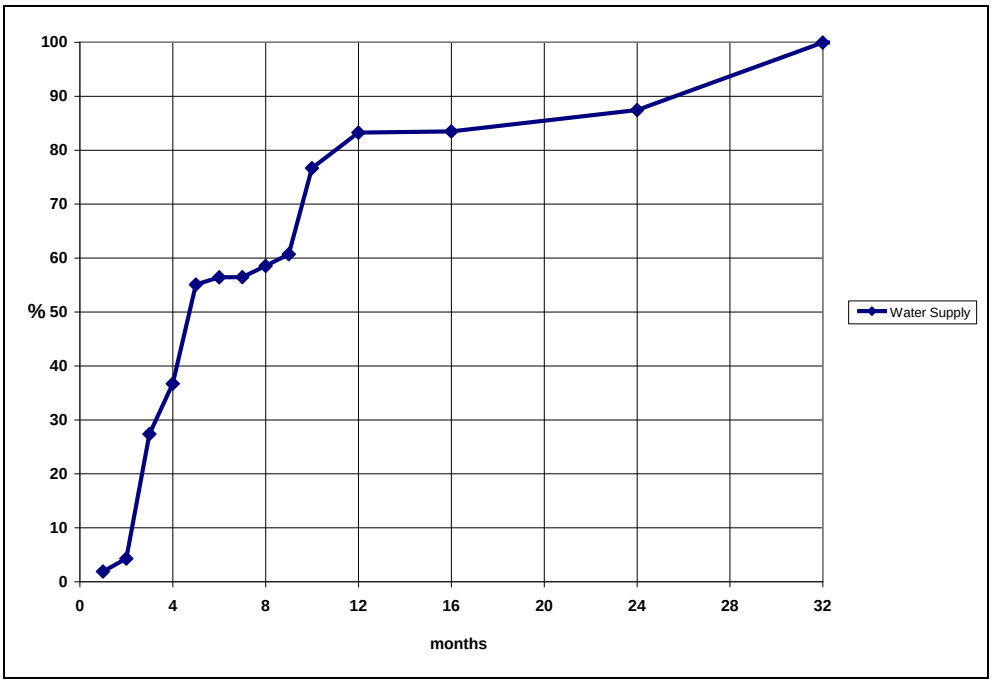



**Figure 23: Months of instalments**




Thirty-four percent of the respondents did not know whether the PDAM provided a discount on the connection fee or the option of payment for the connection in instalments. A quarter of the respondents would not have taken a PDAM connection if there had not been a discount or instalment scheme; 10percent was not sure what they would have done and 65percent would still have connected to the public piped water supply system.

The main reason – respondents had to choose one of three options – for beneficiaries to agree to take a PDAM connection were health concerns (48 percent), savings (14 percent) and problems getting water (38 percent).

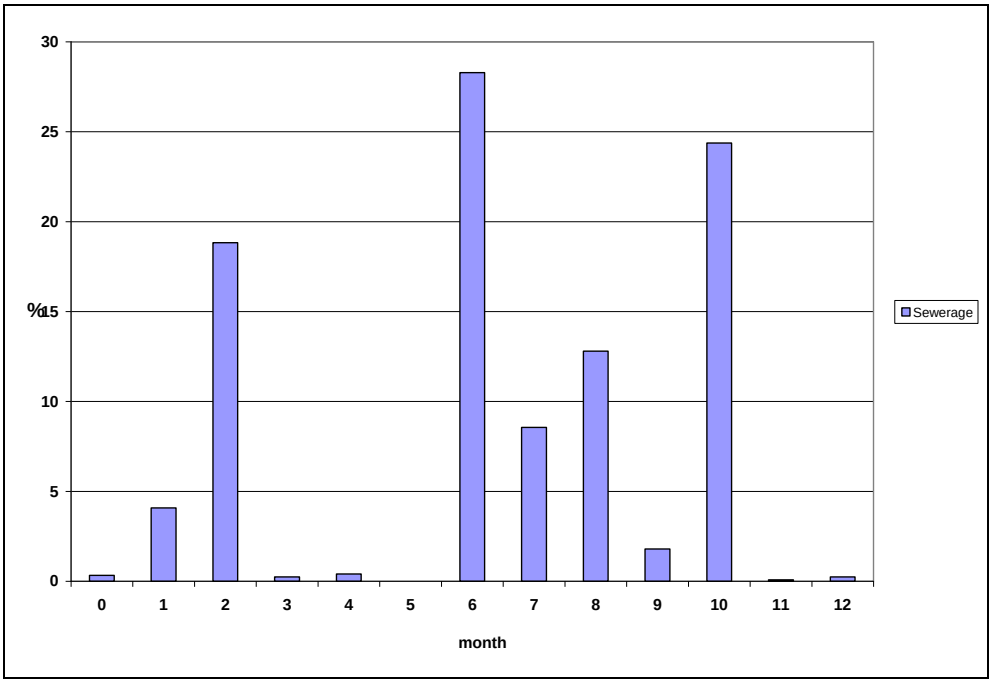
On average beneficiaries paid IDR 33,000 per month for their water bills. The lowest monthly payment was IDR 2,000 and the highest IDR 400,000. Almost all beneficiaries (98 percent) considered the monthly payment fair for the services provided by the PDAM.

Eleven percent of the respondents indicated not to receive water during morning and afternoon peak hours. All but 3percent of the respondents were satisfied with the piped PDAM water supply services. Those that were dissatisfied complained about water quality (16percent), water quantity (11percent) and continuity of supply (68percent). Three out of four of dissatisfied respondents mentioned that they would complain with the PDAM; 7percent said they would refuse to pay the bill.

### 7.3.4 Sanitation results

Figure 24 indicates the number of months that had passed at the time of the interview since the installation of the sewerage service connection. Sewerage connections of batch-2 LGs (DKI Jakarta and Kota Bandung) were not more recent than two months when the interview of the beneficiaries took place. In case of the batch-1 LGs (Kota Surakarta, Kota Banjarmasin, and Kota Balikpapan) most sewerage connections had been installed for at least half a year at the time of the interview.

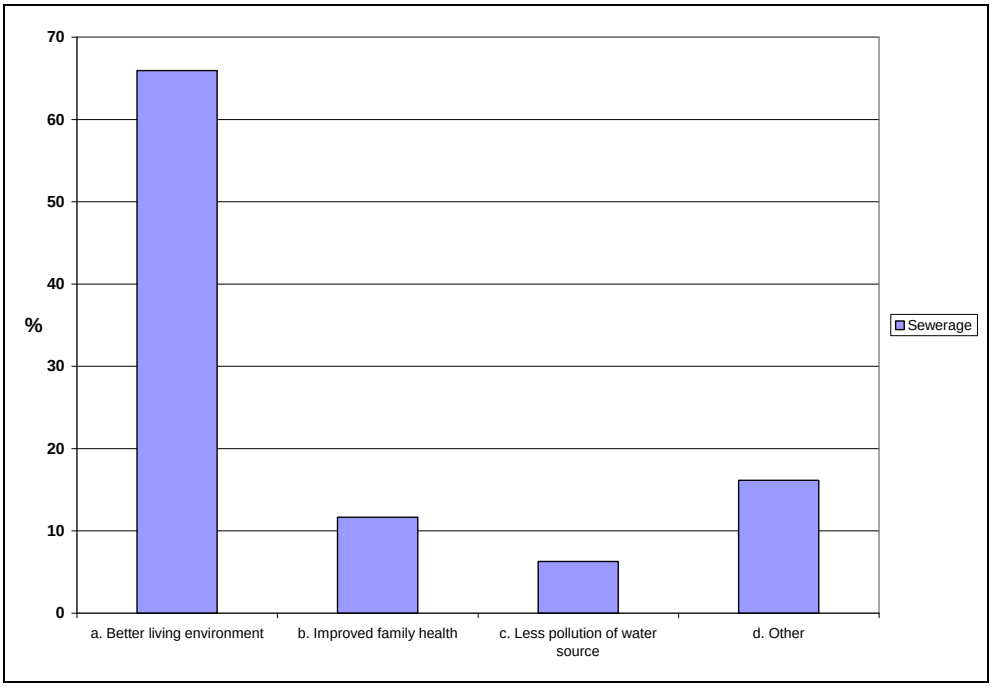
**Figure 24: Time passed since installation of sewerage house connection**




A better living environment is the main benefit mentioned by two-thirds of the beneficiaries of a sewerage connection (Figure 25). Twelve percent considers the improved family health as the primary advantage.

More than thirty percent of the respondents indicated to have experienced problems with the new sewerage connection, such as excessive smell (39percent) or clogging (45percent). In line with this result 28percent of the beneficiaries indicate not to be happy with the new public service, but this result is largely due Banjarmasin, where half of the respondents indicated not to be satisfied. In Solo and Jakarta about 5percent of respondents showed discontent with their new sewerage service; in Bandung and Balikpapan about 12percent. In addition to the problems mentioned above, the level of payment is quoted by 40percent of the dissatisfied beneficiaries. The average monthly bill for connection to the sewerage system is IDR 6,650. More than half of the dissatisfied beneficiaries responded that they would complain to the service provider (PDPAL or PDAM), while a quarter said they did not know what to do.

**Figure 25: Perceived benefits of sewerage connection**




## 7.4 RECOMMENDATIONS

It is recommended to more proactively approach the female heads of the households as respondents of customer satisfaction surveys related to the W&S Hibah program instead of the male heads of households. Female heads of households are usually more closely involved with family hygiene practices and behaviour.

The high level of dissatisfaction with the sewerage services provided by PDPAL Banjarmasin is a sign that should not be disregarded. The reasons for complaints are split between smell, which can be considered a technical problem, and the level of the monthly bill, which seems to be an indication of insufficient socialisation of the services offered by the PDPAL and the related dues. The technical challenges of installation and operation of a sewer system in Kota Banjarmasin are recognised and more attention will be needed. It seems that the problem is more than only technical: attention will need to be paid to improve communication and customer services. Furthermore, institutional strengthening of the PDPAL seems necessary as well.

# ANNEXES

## ANNEXE 1: DETAILED RESULTS OF CUSTOMER SATISFACTION SURVEYS

Annex 7 contains detailed results of the customer satisfaction surveys carried out among beneficiaries of water supply and sewage house connections in batch-1 and batch-2 local governments.

### 1. Survey Location

Satisfaction survey will cover all kabupatens/cities that receive Water and Sanitation Hibah programs (40 kabupatens/cities) as is shown in table below.

**Table Annex 7A: Survey Locations for Batch-1 and Batch-2 Local Government**

| WATER HIBAH – BATCH-1 | | | |
|---|---|---|---|
| **No.** | **PROVINCE** | **No.** | **KABUPATEN/KOTA** |
| 01 | Sumatera Selatan | 01 | Kota Palembang |
| 02 | Banten | 02 | Serang |
| 03 | Jawa Barat | 03 | Ciamis |
| | | 04 | Bogor |
| | | 05 | Kota Bogor |
| | | 06 | Karawang |
| | | 07 | Garut |
| | | 08 | Kuningan |
| 04 | Jawa Tengah | 09 | Wonogiri |
| | | 10 | Klaten |
| | | 11 | Wonosobo |
| | | 12 | Kudus |
| | | 13 | Boyolali |
| | | 14 | Cilacap |

| WATER HIBAH – BATCH-1 | | | |
|---|---|---|---|
| **No.** | **PROVINCE** | **No.** | **KABUPATEN/KOTA** |
| | | 15 | Pekalongan |
| 05 | Jawa Timur | 16 | Jombang |
| | | 17 | Bangkalan |
| | | 18 | Kota Malang |
| 06 | Kalimantan Selatan | 19 | Banjar |
| | | 20 | Banjar Baru |
| 07 | Kalimantan Tengah | 21 | Palangkaraya |
| 08 | NTB | 22 | Lombok Timur |
| **SANITATION HIBAH BATCH-1** | | | |
| | Kalimantan Selatan | 23 | Kota Banjarmasin |
| | Jawa Tengah | 24 | Surakarta |
| | Kalimantan Timur | 25 | Kota Balikpapan |
| **WATER SUPPLY HIBAH BATCH-2** | | | |
| **No.** | **PROVINCE** | **No.** | **KABUPATEN/KOTA** |
| | Sumatera Barat | 26 | Padang |
| | Banten | 27 | Pandeglang |
| | Jawa Timur | 28 | Sidoarjo |
| | Jawa Timur | 29 | Situbondo |
| | Kalimantan Selatan | 30 | Banjarmasin |
| | Irian Jaya | 31 | Jayapura |
| | Kalimantan Tengah | 32 | Kapuas |

| WATER HIBAH – BATCH-1 | | | |
|---|---|---|---|
| **No.** | **PROVINCE** | **No.** | **KABUPATEN/KOTA** |
| | Sumatera Selatan | 33 | Muara Enim |
| | Kalimantan Timur | 34 | Balikpapan |
| | Jawa Barat | 35 | Cianjur |
| | Jawa Tengah | 36 | Sukoharjo |
| | Lampung | 37 | Lampung Utara |
| | Sulawesi Tengah | 38 | Donggala |
| **SANITATION HIBAH BATCH-2** | | | |
| | DKI Jakarta | 39 | DKI Jakarta |
| | Jawa Barat | 40 | Bandung |

## 2. Methodology

### 2.1. Survey Methodology

This survey uses *cross sectional survey* methodological design with the main objective to figure out current satisfaction level of the water and waste water consumers in the survey area.

### 2.2. Populations and Samples

The populations targeted for this satisfaction survey are all customers of PDAM/PDPAL located in the selected 38 kabupatens/cities. Meanwhile, samples consist of respondents selected from the targeted consumers in those 38 kabupatens/cities. Sample Unit is village in each selected kabupaten/district.

Total number of samples taken range between 13-15 percent and determined proportionally in line with total house connection installed in each Kabupaten/City. The following table shows the number of samples selected for each Kabupaten/City.

**Table Annex 7B: Samples Selected in each Kabupaten/Kota**

| | Province | City/Kabupaten | House Connection | Sample # |
|---|---|---|---|---|
| **WATER HIBAH BATCH-1** | | | | |
| 1 | Sumatera Selatan | Kota Palembang | 4.000 | 550 |
| 2 | Banten | Serang | 2.000 | 300 |
| 3 | Jawa Barat | Ciamis | 3.000 | 425 |
| 4 | Jawa Barat | Bogor | 3.500 | 475 |
| 5 | Jawa Barat | Kota Bogor | 1.000 | 150 |
| 6 | Jawa Barat | Karawang | 3.000 | 425 |
| 7 | Jawa Barat | Garut | 2.650 | 375 |
| 8 | Jawa Barat | Kuningan | 2.650 | 375 |
| 9 | Jawa Tengah | Wonogiri | 2.000 | 275 |
| 10 | Jawa Tengah | Klaten | 3.000 | 425 |
| 11 | Jawa Tengah | Wonosobo | 2.500 | 350 |
| 12 | Jawa Tengah | Kudus | 500 | 75 |
| 13 | Jawa Tengah | Boyolali | 1.300 | 195 |
| 14 | Jawa Tengah | Cilacap | 1.150 | 170 |
| 15 | Jawa Tengah | Pekalongan | 1.000 | 150 |
| 16 | Jawa Timur | Jombang | 1.200 | 180 |
| 17 | Jawa Timur | Bangkalan | 1.100 | 165 |
| 18 | Jawa Timur | Kota Malang | 2.000 | 275 |
| 19 | Kalimantan Selatan | Banjar | 2.000 | 275 |
| 20 | Kalimantan Selatan | Banjar Baru | 1.500 | 225 |
| 21 | Kalimantan Tengah | Palangkaraya | 750 | 110 |
| 22 | NTB | Lombok Timur | 500 | 75 |

| | Province | City/Kabupaten | House Connection | Sample # |
|---|---|---|---|---|
| **SANITATION HIBAH BATCH-1** | | | | |
| 23 | Kalimantan Selatan | Kota Banjarmasin | 2.000 | 600 |
| 24 | Jawa Tengah | Surakarta | 400 | 350 |
| 25 | Kalimantan Timur | Kota Balikpapan | 200 | 30 |
| **WATER HIBAH BATCH-2** | | | | |
| 1 | Sumatera Barat | Padang | 1.500 | 210 |
| 2 | Banten | Pandeglang | 1.000 | 140 |
| 3 | Jawa Timur | Sidoarjo | 5.000 | 700 |
| 4 | Jawa Timur | Situbondo | 1.000 | 0 |
| 5 | Kalimantan Selatan | Banjarmasin | 5.000 | 500 |
| 6 | Irian Jaya | Jayapura | 500 | 70 |
| 7 | Kalimantan Tengah | Kapuas | 500 | 70 |
| 8 | Sumatera Selatan | Muara Enim | 1.000 | 140 |
| 9 | Kalimantan Timur | Balikpapan | 1.000 | 140 |
| 10 | Jawa Barat | Cianjur | 1.000 | 140 |
| 11 | Jawa Tengah | Sukoharjo | 1.000 | 140 |
| 12 | Lampung | Lampung Utara | 700 | 0 |
| 13 | Sulawesi Tengah | Donggala | 1.000 | 140 |
| **SANITATION HIBAH BATCH-2** | | | | |
| 14 | DKI Jakarta | DKI Jakarta | 500 | 55 |
| 15 | Jawa Barat | Bandung | 1.500 | 195 |

## 2.3. Survey Implementation

### 2.3.1. Questionnaire

The customer satisfaction survey questionnaires were developed by IndII in such a way so as to meet the objective of the survey. Prior to field survey implementation, the draft of questionnaire was discussed with consultant team from MLD for receiving inputs and yet improvements.

### 2.3.2. Data collection method

Data collection was conducted through direct interview with respondents in the respondent's residents.

### 2.3.3. Enumerators

Enumerators selected for conducting field survey are students or local communities that have sufficient experiences in conducting field survey.

***Briefing***

One day briefing for enumerators were conducted respectively in Bandung, Banjarmasin and Jogyakarta. The main objective of this briefing was to provide a better understanding of enumerators about survey objectives and the meaning of each question in the questionnaire. To facilitate and accelerate the understanding, interview simulations among enumerators were also conducted at the end of briefing session.

***Data Collection Schedule***

Overall customer satisfaction surveys were started on 10 February 2011 and were originally planned would be completed at the middle of June 2011. However, due to delay of house connections in some PDAMs, the field survey was only completed at the end of July 2011.

***Data Processing***

The field collected data were firstly cleaned to exclude and/or correct outliers' data before they are inputted and analysed using EPI Info software.

## 3. Satisfaction Survey Results

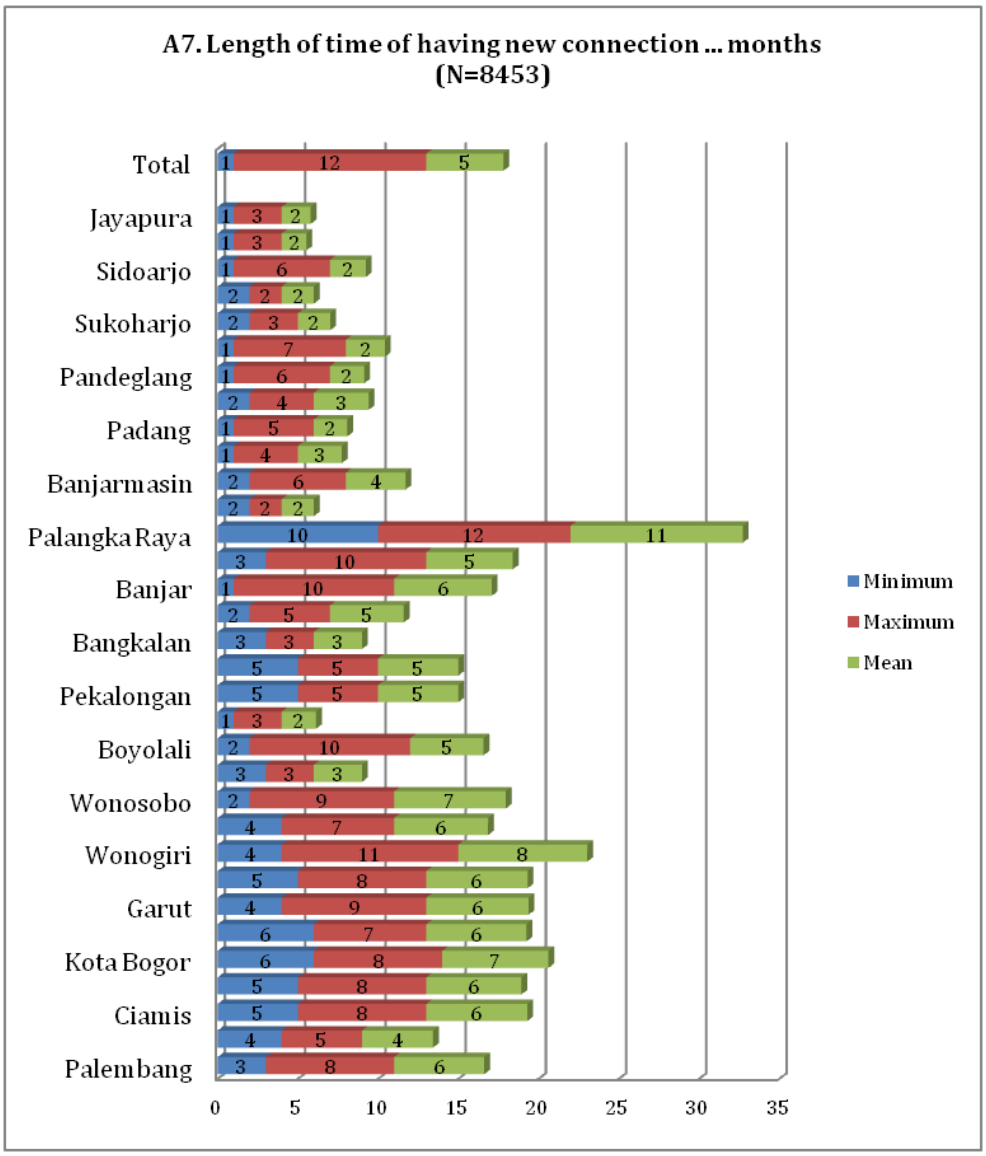
This section will presents part of the customer satisfaction survey results which were obtained from interviewing about …… water supply respondents and ……. waste water respondents.

### 3.1 Water Hibah

#### 3.1.1. The length of house connections

When the survey was conducted, the lenght of new house connections ranges between 1 month and 12 months with average lenght of about 5 months. The largest variation occurs for Kabupaten Banjar where the shortest house connection age was only one month and the longest was about 10 months. The smallest variation occurred for Kabupaten Karawang where the dirrent between the longest and the shorthest age was only one month (7 months versus 6 montsh). Figure 1 shows the average lenght of house connections in month.

**Figure 1. The average length of new house connections**



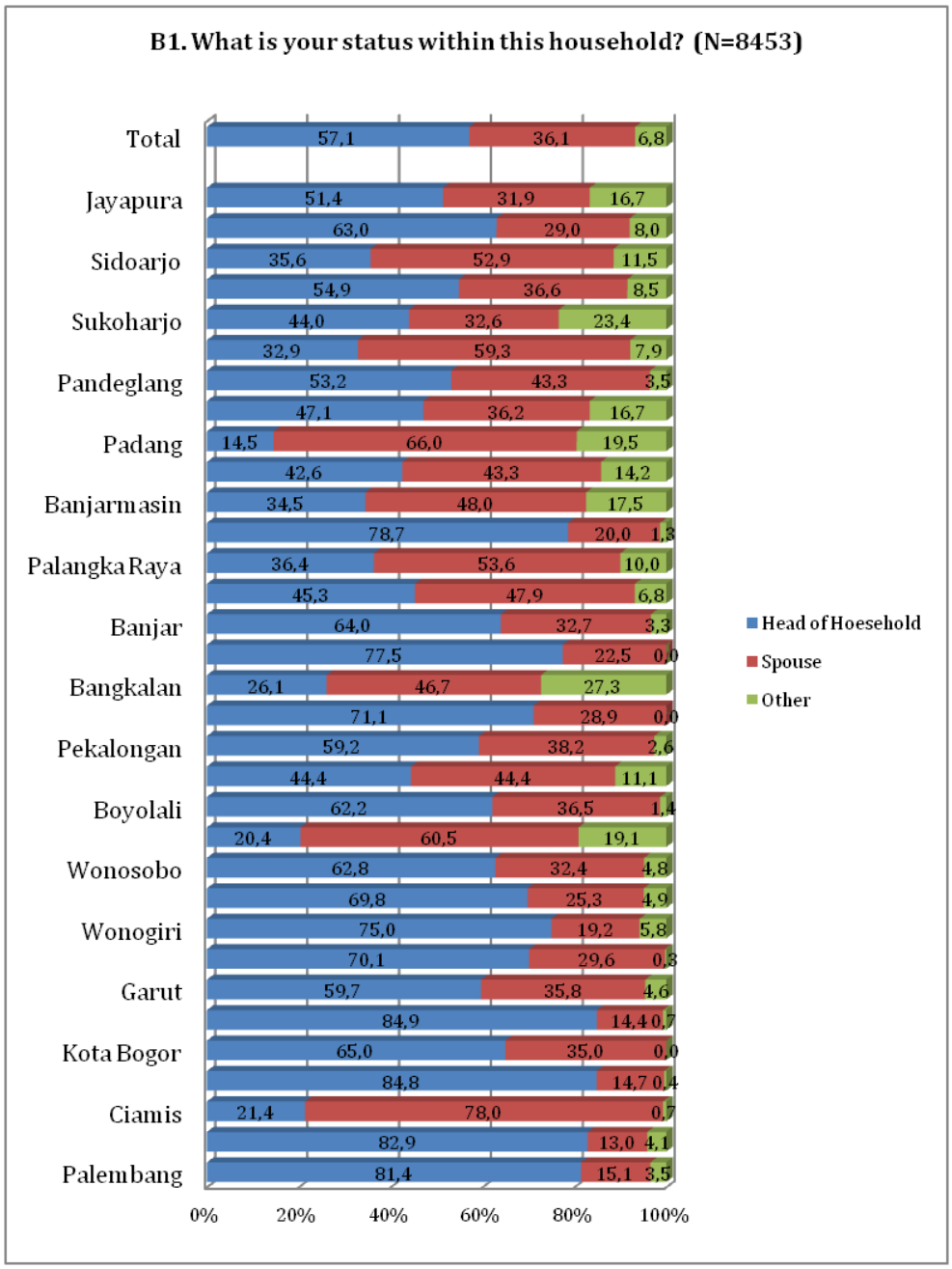

### 3.1.2. Respondent's Characteristics of Water Supply Customers

#### 3.1.2.1 Respondent's Characteristics by Status

Figure 2 shows that in average the status of respondents was predominantly by head of households (57.1percent) as compared to their spouse (36.1percent) and other family members (6.8*percent). However, there are some variations between local governments. In Kabupaten Karawang, Kabupaten Bogor, Kabupaten Serang and Kota Palembang, the head of households represented of more than 80percent of the respondents, while their spouse accounts for 13percent to 15percent. The rest are

other family members. In contrary, the respondents in Kota Padang, Kabupaten Cianjur and Kabupaten Sidoarjo were predominantly by spouse (ranges between 53percent until 66percent), while the head of household respondents account for 13percent until 36percent.

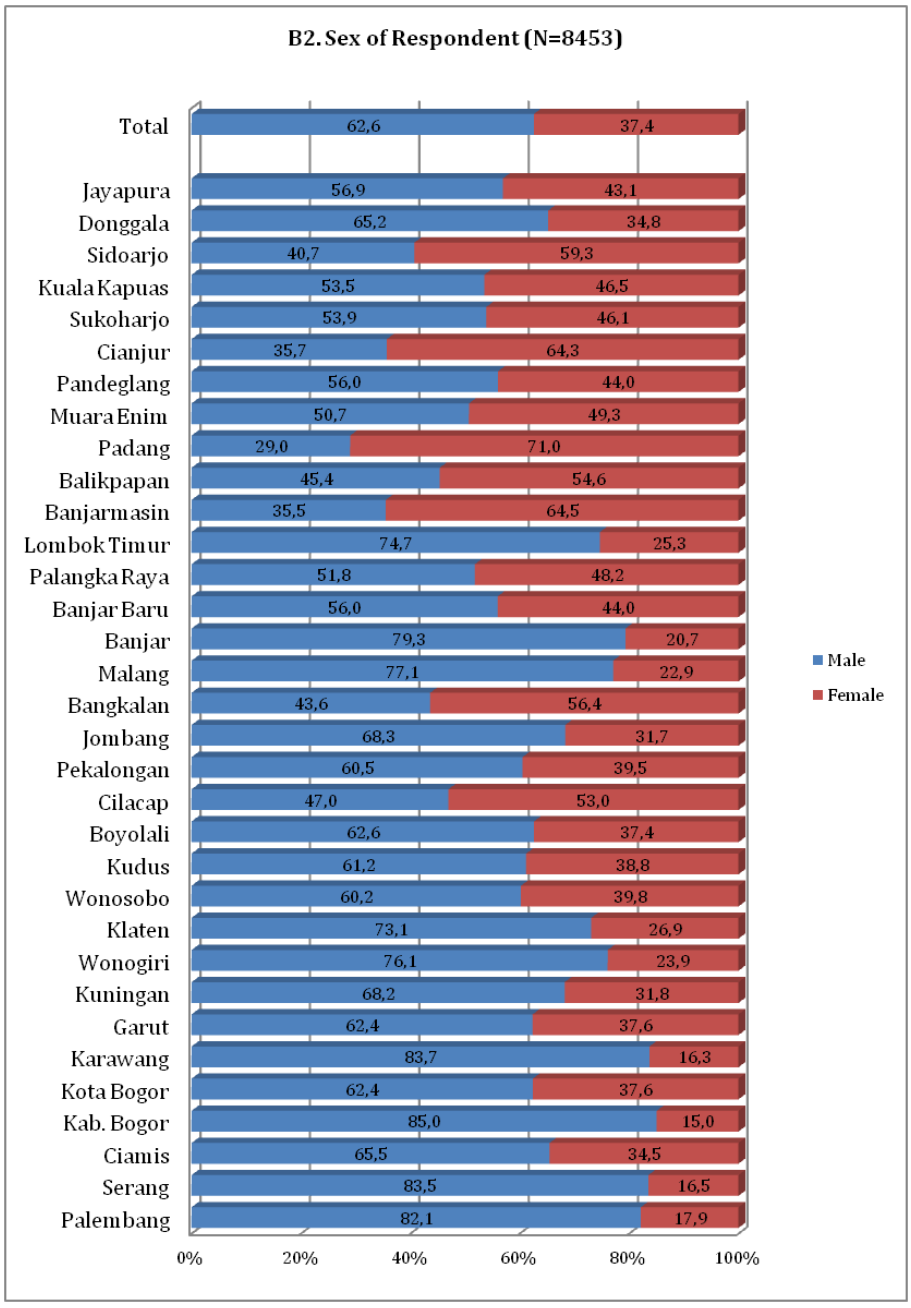
**Figure 2. Respondent's Status within the family**



### 3.1.2.2 Respondent's Characteristics by Sex

In average, the respondents were predominantly by men (62.6percent) as compared to women (37.4percent), especially in kabupaten Karawang, kabupaten Bogor, Kabupaten Serang and Kota Palembang where men representing more than 80percent of the total respondents. The exception are for Kota Padang, Kabupaten Cianjur and Kota Banjarmasin where Women representing more than 60percent of the total respondents. The following Figure 3 shows the respondent's profiles by sex.

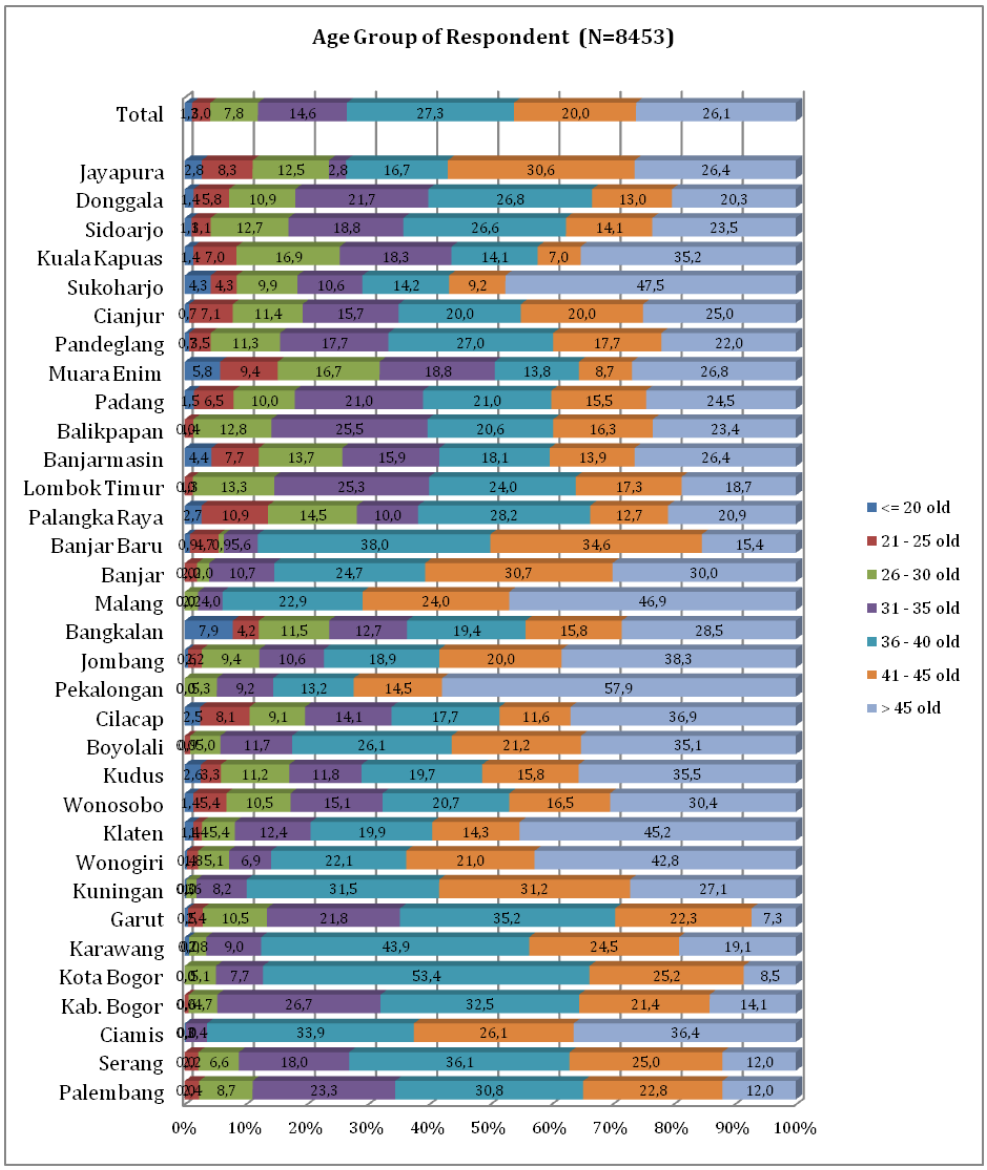
**Figure 3. Respondent's Profiles by Sex**



### 3.1.2.3 Respondent's Characteristics by Age Groups

As is shown in Figure 4 (respondents based on age group classification), most of the respondents have an age of between 36 – 40 years old (27.3percent) and more than 45 years old (26,1percent) with the average of 41 years old. The standard deviation (STD) was 9,2.

**Figure 4. Respondent's Profiles by age group**

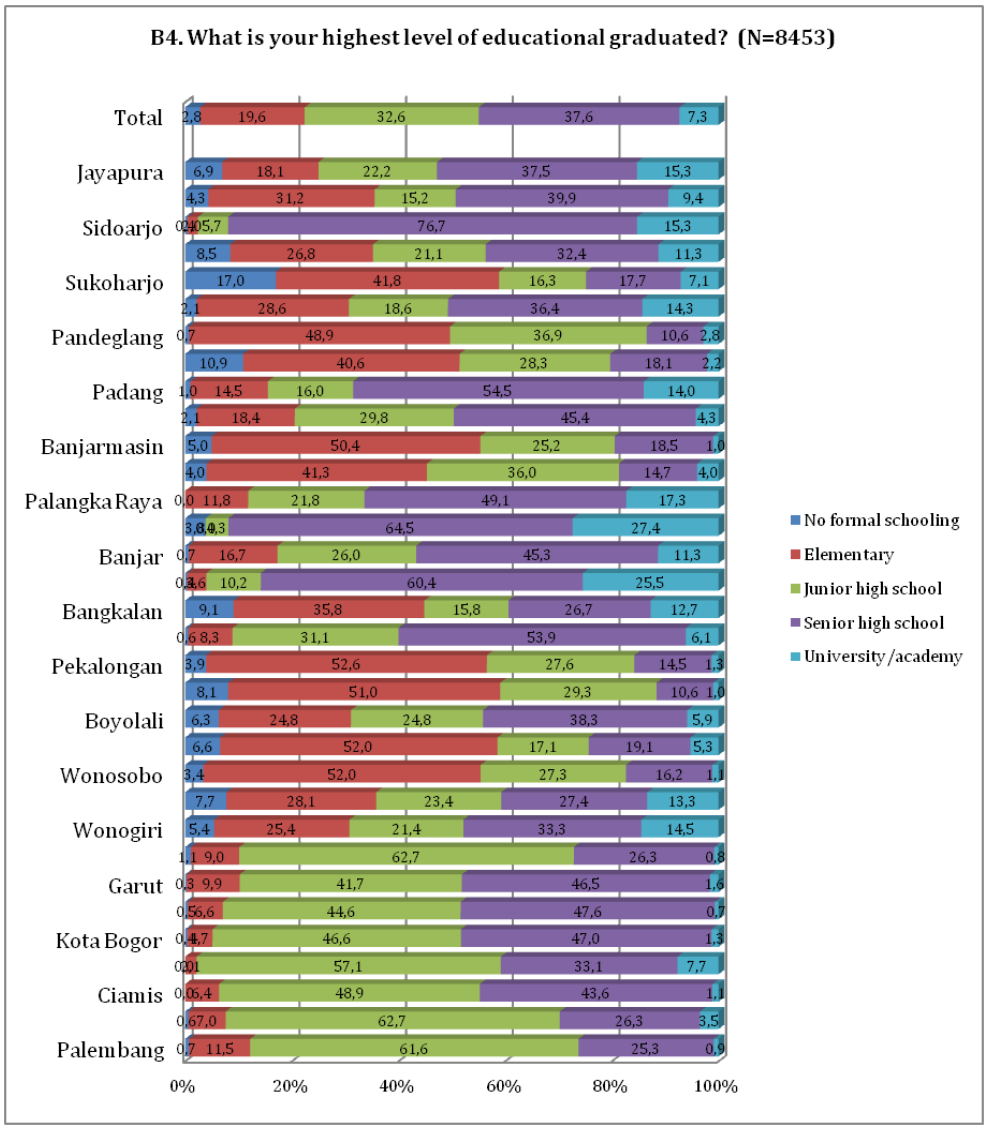



### 3.1.2.4 Respondent's Characteristics by Education Level

In average, the education level of the respondents was mostly represented by Senior High School (SMA) of about 37.6percent, followed by Junior High School (SMP) of

about 32.6percent, Primary School (SD) of 19.6percent and only 7.3percent who posses University Degree. However, the education level of the respondents in Kapubaten Banjar Baru and Kota Malang is much better, in which 27.4percent of respondents in Kabupaten Banjar Baru and 25.5percent of respondents in Kota Malang posses University Degree. The respondents profile by eduction level is further shown in Figure 5.

**Figure 5. Respondent's Profiles by Eduction Level**



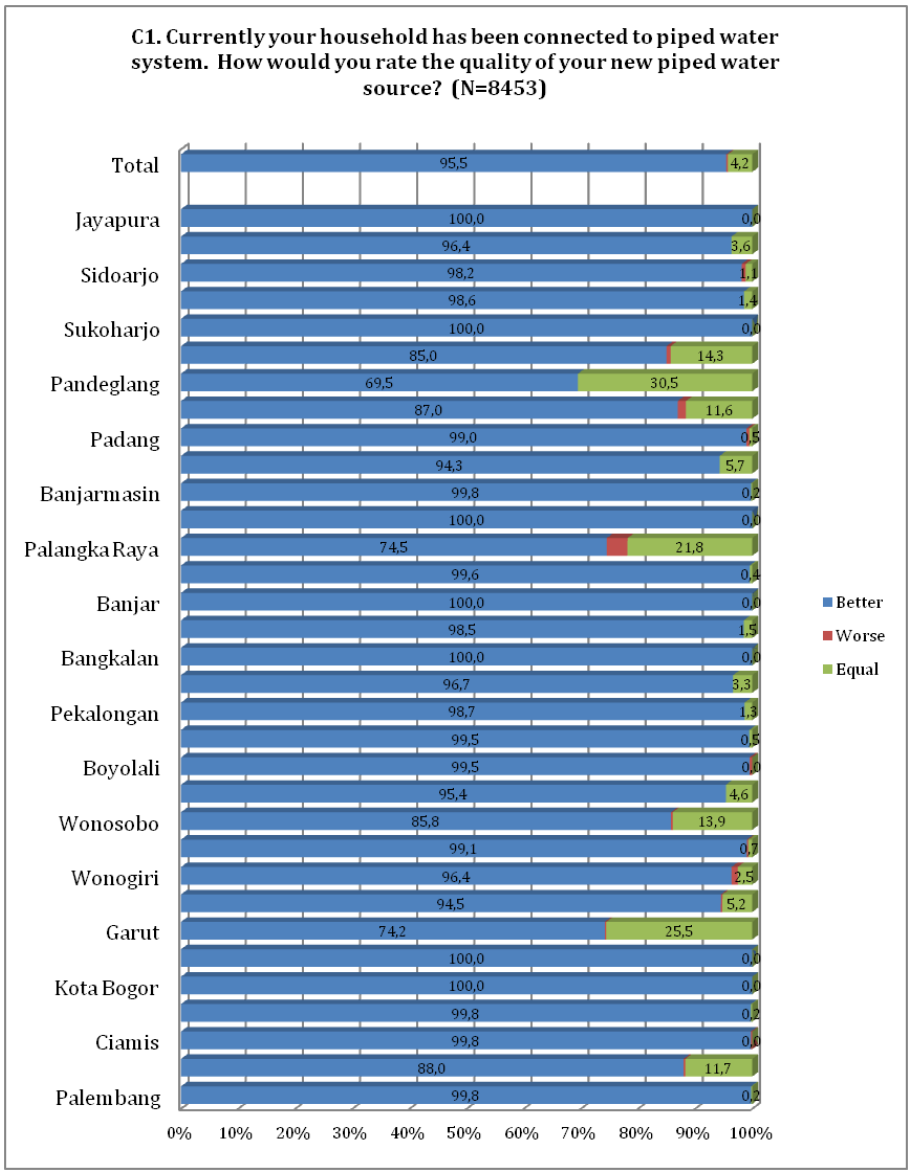

### 3.1.3. Utilisation of Piped Water Supply System and Customer Satisfaction

#### 3.1.3.1 Perception on New Piped Water Supply System as Compared to Previous Sources.

The following Figure 6 shows the respondent's perception of the new piped water supply system as compared to the previous water source that they use. As can be seen in the figure, almost all respondents (95.5percent) stated that water quality produced from the new system is better than water quality obtained from the previous sources. Only less than 5percent, in average, who states that water produced from the new system, was as similar quality as those obtained from previous sources. However, 30.5percent, 25.5percent and 21.8percent respondents in respectively Kabupaten Pandeglang, Kabupaten Garut and Kota Palangkaraya, stated that the water quality obtained from new system was as similar as the previous water quality.

In average the respondents who stated that the water quality from new system was worse than previous system was tiny or almost none. However, there was an exception for Kota Palangkaraya where about 4percent of the respondents stated that the water quality from new system was worse than previous water quality.

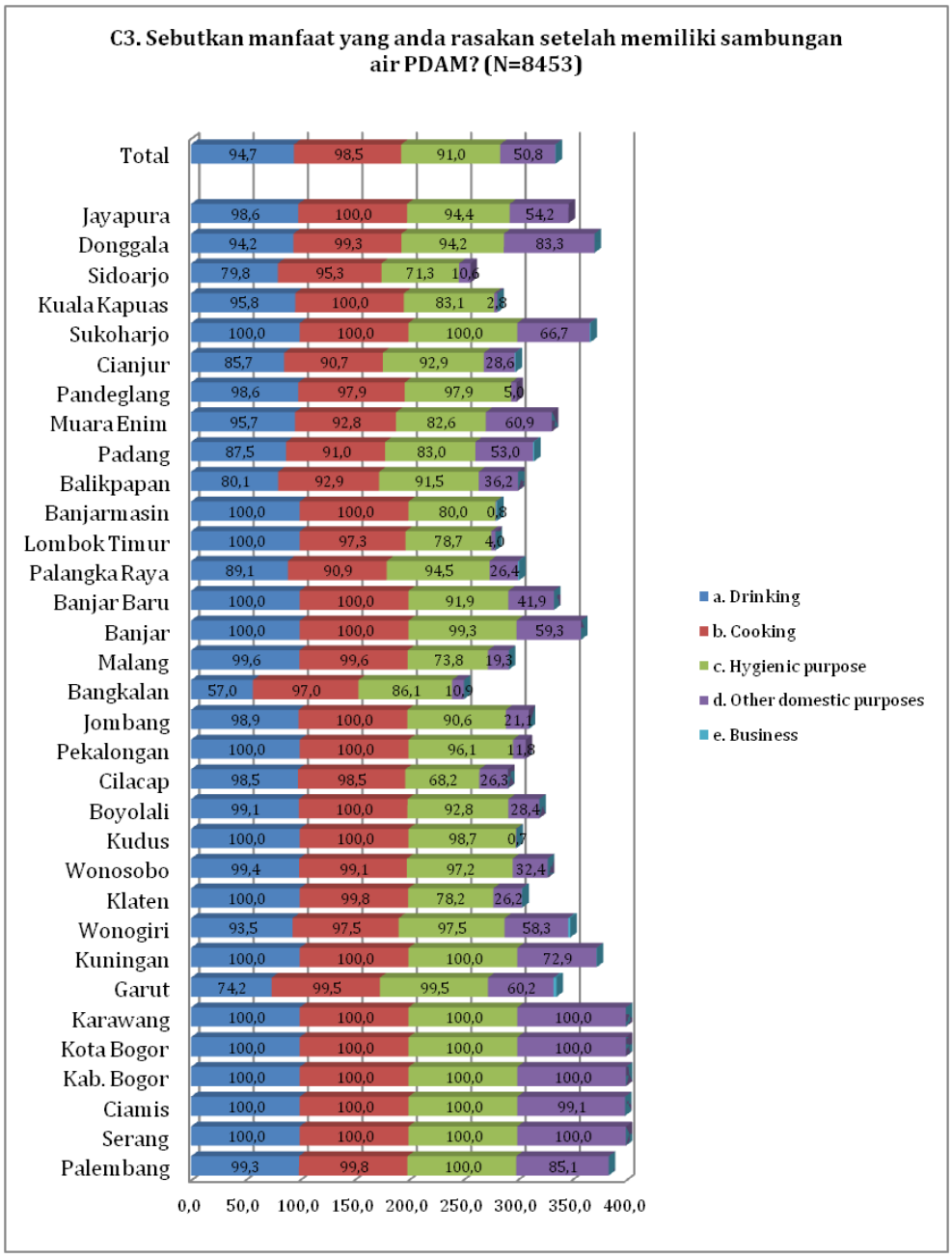
**Figure 6. Perception on New Piped Water Supply System as Compared to Previous Sources**




### 3.1.3.2 Water Utilisation from PDAM

As is shown in Figure 7, most of the respondents utilise water from the new system for domestic usages i.e. cooking (98.5percent), drinking (94.7percent) and hygiene purposes (91percent).

**Figure 7. Water Utilisation PDAM**

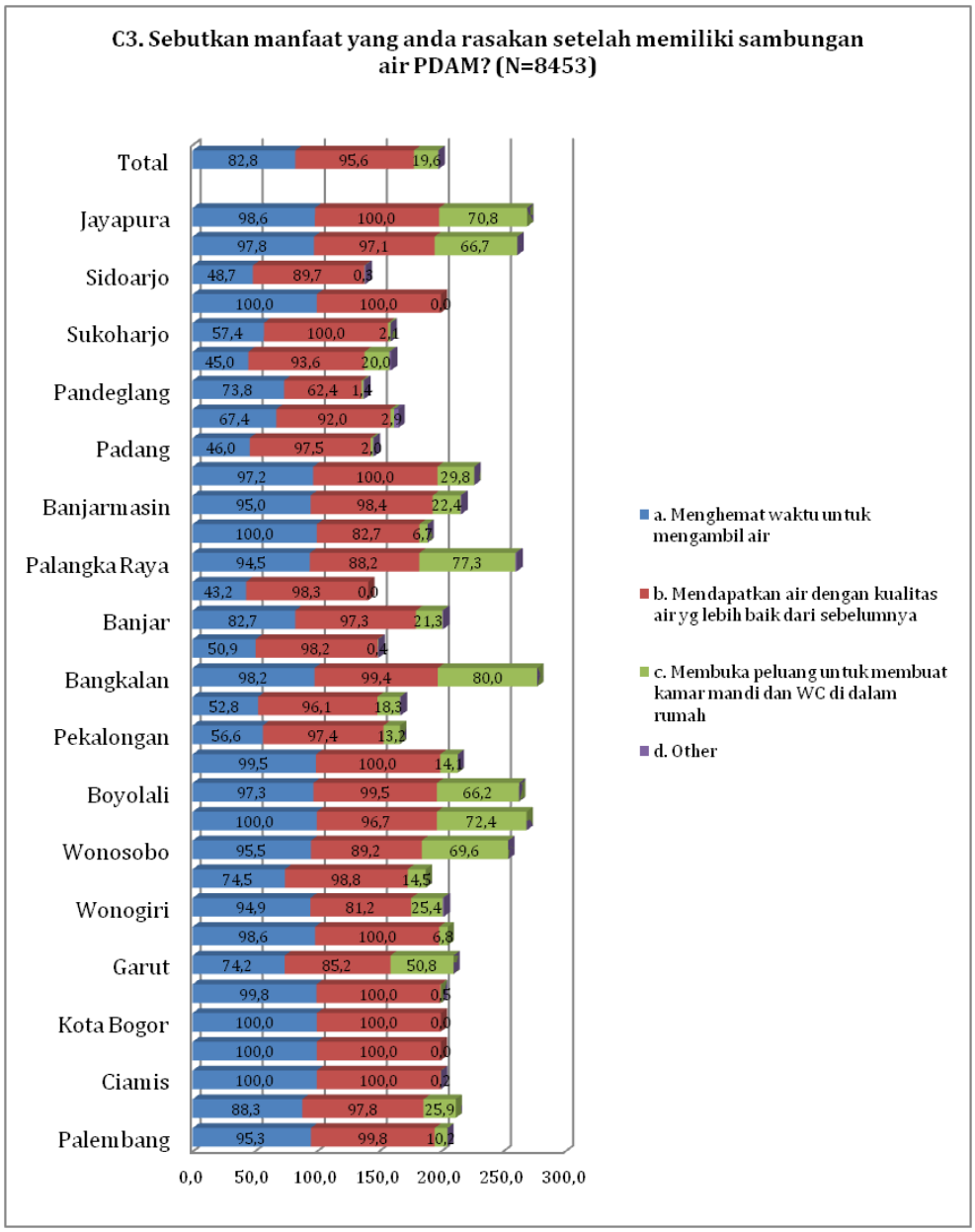

C3. Sebutkan manfaat yang anda rasakan setelah memiliki sambungan air PDAM? (N=8453)
Total 94,7 98,5 91,0 50,8
Jayapura 98,6 100,0 94,4 54,2
Donggala 94,2 99,3 94,2 83,3
Sidoarjo 79,8 95,3 71,3 10,6
Kuala Kapuas 95,8 100,0 83,1 2,8
Sukoharjo 100,0 100,0 100,0 66,7
Cianjur 85,7 90,7 92,9 28,6
Pandeglang 98,6 97,9 97,9 5,0
Muara Enim 95,7 92,8 82,6 60,9
Padang 87,5 91,0 83,0 53,0
Balikpapan 80,1 92,9 91,5 36,2
Banjarmasin 100,0 100,0 80,0 0,8
Lombok Timur 100,0 97,3 78,7 4,0
Palangka Raya 89,1 90,9 94,5 26,4
Banjar Baru 100,0 100,0 91,9 41,9
Banjar 100,0 100,0 99,3 59,3
Malang 99,6 99,6 73,8 19,3
Bangkalan 57,0 97,0 86,1 10,9
Jombang 98,9 100,0 90,6 21,1
Pekalongan 100,0 100,0 96,1 11,8
Cilacap 98,5 98,5 68,2 26,3
Boyolali 99,1 100,0 92,8 28,4
Kudus 100,0 100,0 98,7 0,7
Wonosobo 99,4 99,1 97,2 32,4
Klaten 100,0 99,8 78,2 26,2
Wonogiri 93,5 97,5 97,5 58,3
Kuningan 100,0 100,0 100,0 72,9
Garut 74,2 99,5 99,5 60,2
Karawang 100,0 100,0 100,0 100,0
Kota Bogor 100,0 100,0 100,0 100,0
Kab. Bogor 100,0 100,0 100,0 100,0
Ciamis 100,0 100,0 100,0 99,1
Serang 100,0 100,0 100,0 100,0
Palembang 99,3 99,8 100,0 85,1
0,0 50,0 100,0 150,0 200,0 250,0 300,0 350,0 400,0
a. Drinking
b. Cooking
c. Hygienic purpose
d. Other domestic purposes
e. Business

#### 3.1.3.3 Benefits after Having New Piped Water Supply System from PDAM

As is presented in Figure 8, in average, most of the respondents (95.6percent) stated that better water quality was considered as the highest benefits that they gain from having new piped water supply system, while 82.8percent of the respondents stated that the new piped water supply system has the benefit of decreasing time for getting clean water (time saving). To the smaller extent (about 20percent) of the respondents stated that the new piped water supply system had encouraged them to build bathrooms and toilets inside the house.

It was interesting to be noted however, that in Kota Palangkaraya, Kabupaten Bangkalan, Kabupaten Boyolali, Kabupaten Kudus and Kabupaten Wonosobo and Kabupaten Garut, the respondents who stated that the new system had encouraged them to build bathroom and toilet inside their houses are higher as compared to other kabupatens/cities. The percentages are 77.3percent for Palangkaraya, 80percent for Bangkalan, 66.2percent for Boyolali, 72.4percent for Kudus and 50.8percent for Garut.

**Figure 8. Benefits after Having New Piped Water Supply System from PDAM**



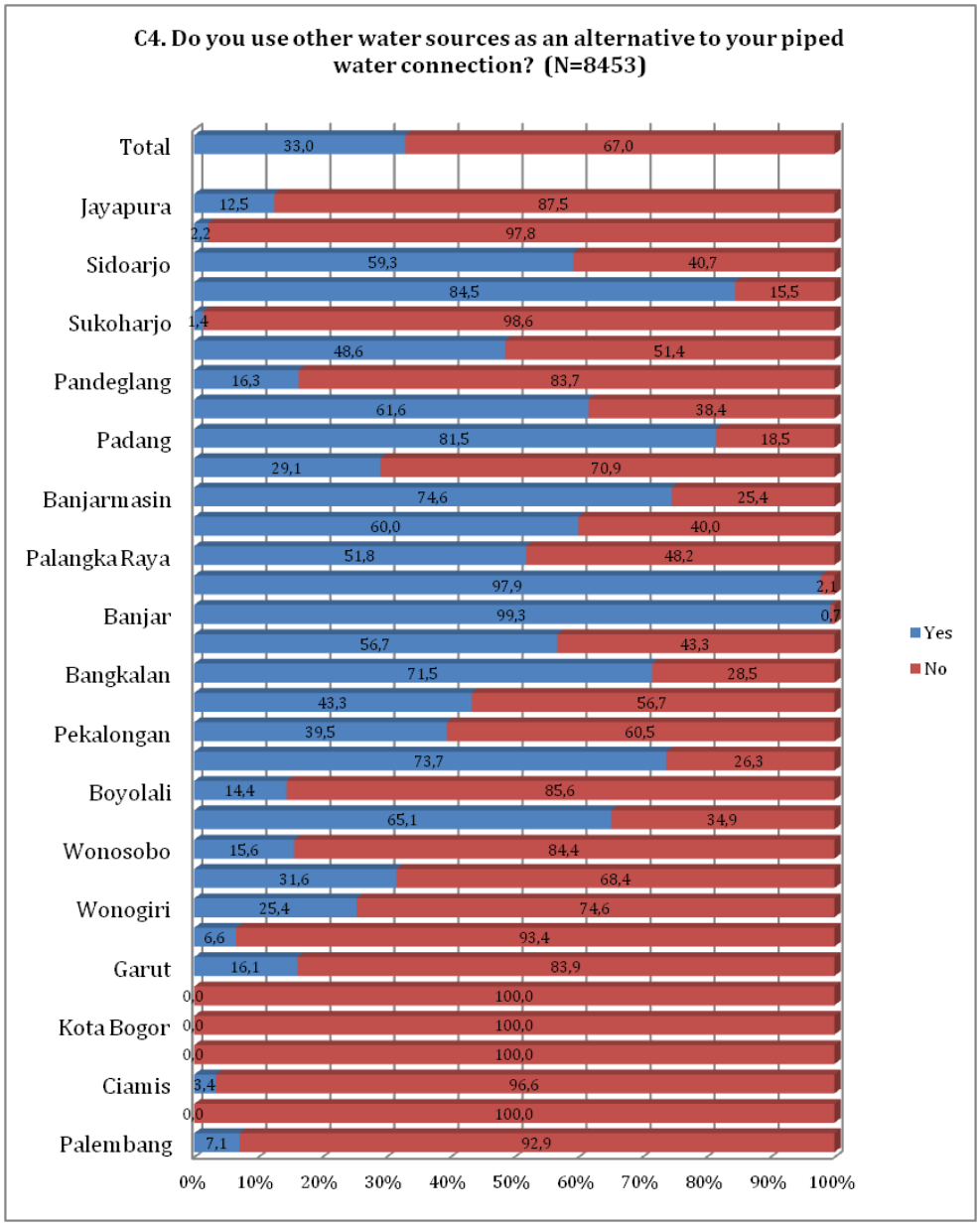

### 3.1.3.4 Other sources of water as alternative to piped water supply system from PDAM

In average, more than half (about 67percent) of the respondents stated that they don't have other water sources as an alternative to their new piped water supply system from PDAM and the rest (about 33percent) stated otherwise.

In Kabupaten Karawang, Kota Bogor, Kabupaten Bogor and Kabupaten Serang, all respondents (100percent) stated that they have no other alternatives of source of

water. On the contrary, in Kabupaten Banjar and Banjarbaru, almost all respondents stated that they have other alternatives of water sources. The following figure 9 shows the percentages of other water sources own by the respondents.

**Figure 9. Other sources as alternative to piped water supply system from PDAM**



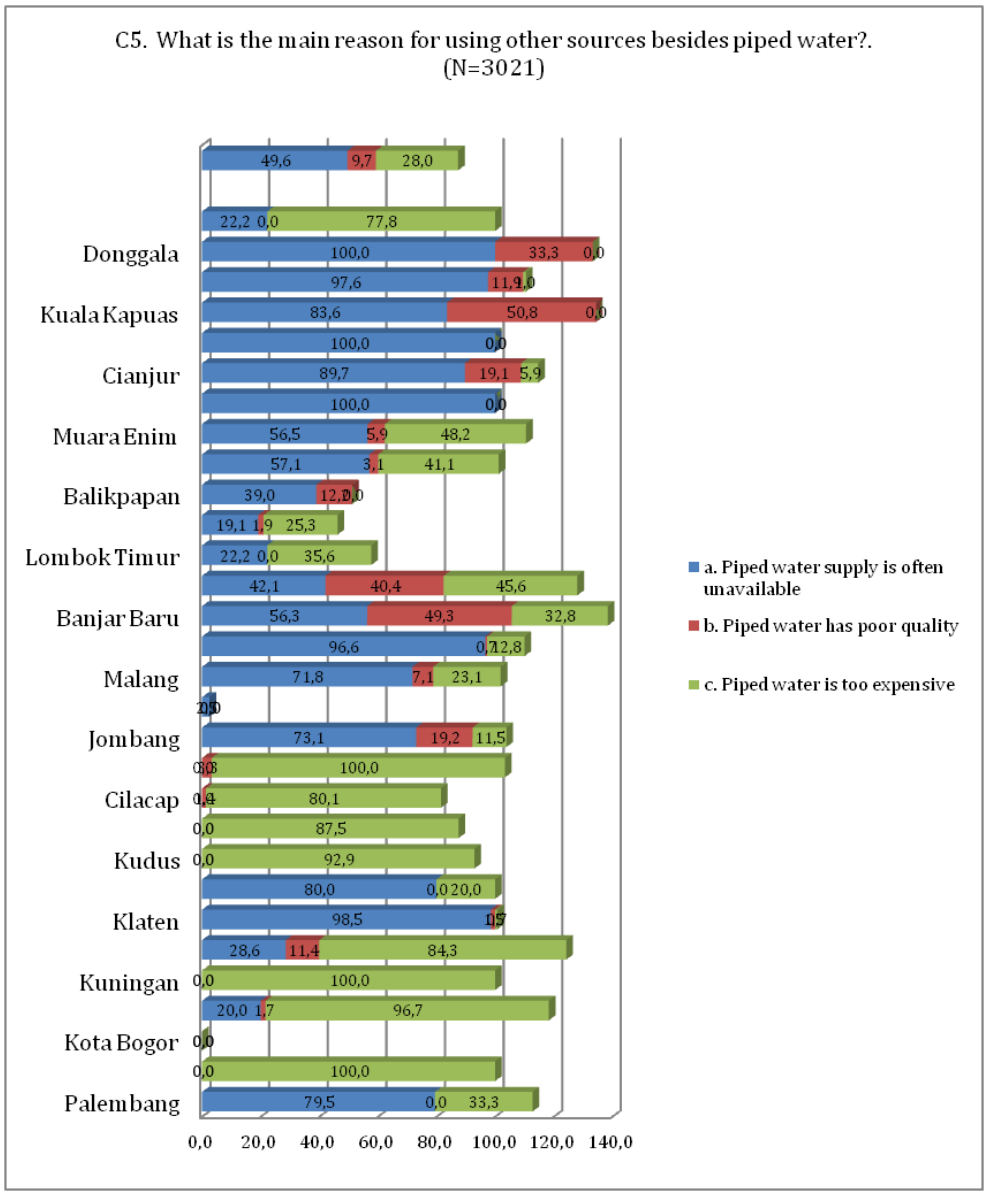

### 3.1.3.5 Reasons of using other water sources other than piping water system from PDAM

Uncontinued supply, poor quality and expensive were the three reasons perceived by respondents that lead them to use other water sources other that piped water supply

from PDAM. In average, uncontinued supply was the main reason stated by most of the respondents (49.6percent) in all kabupatens/cities surveyed. Meanwhile, poor quality and expensive reasons were expressed by 28percent and 9.7percent of the respondents respectively.

Uncontinued supply was the only reason expressed by all respondents in Kabupaten Donggala, Sukoharjo and Pandeglang that utilised other source of water other than piped water supply from PDAM. Meanwhile, all respondents in Kabupaten Ciamis, Pekalongan and Kuningan who utilised other source of water stated that the high price (expensive) as the only reason. The following Figure 10 shows the reasons of respondents that utilised other source of water.

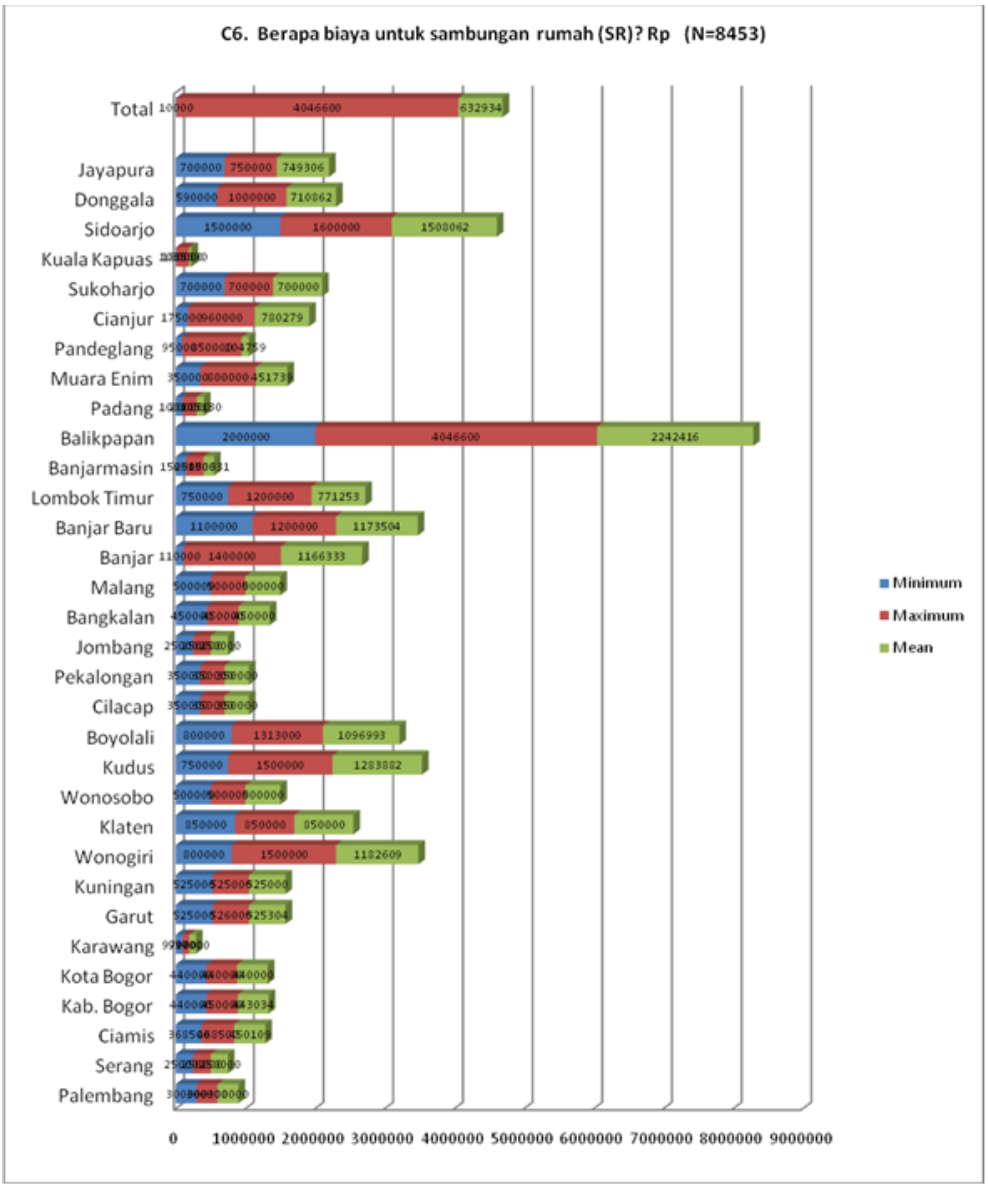
**Figure 10. Reasons for using other source of water**



### 3.1.3.6 House Connection Fee Charged by PDAM

The house connection fee charged by PDAM/PDPAL varies from none (in Kota Palangkaraya) to Rp 4 million in kota Balikpapan. The average connection fee is Rp 632,934 per house connection with standard deviation (STD) of 471618. The following Figure 11 shows the average connection fee charged by PDAM/PDPAL in all Kabpuaten/Cities surveyed

**Figure 11. Connection Fee Charged by PDAM/PDPAL**

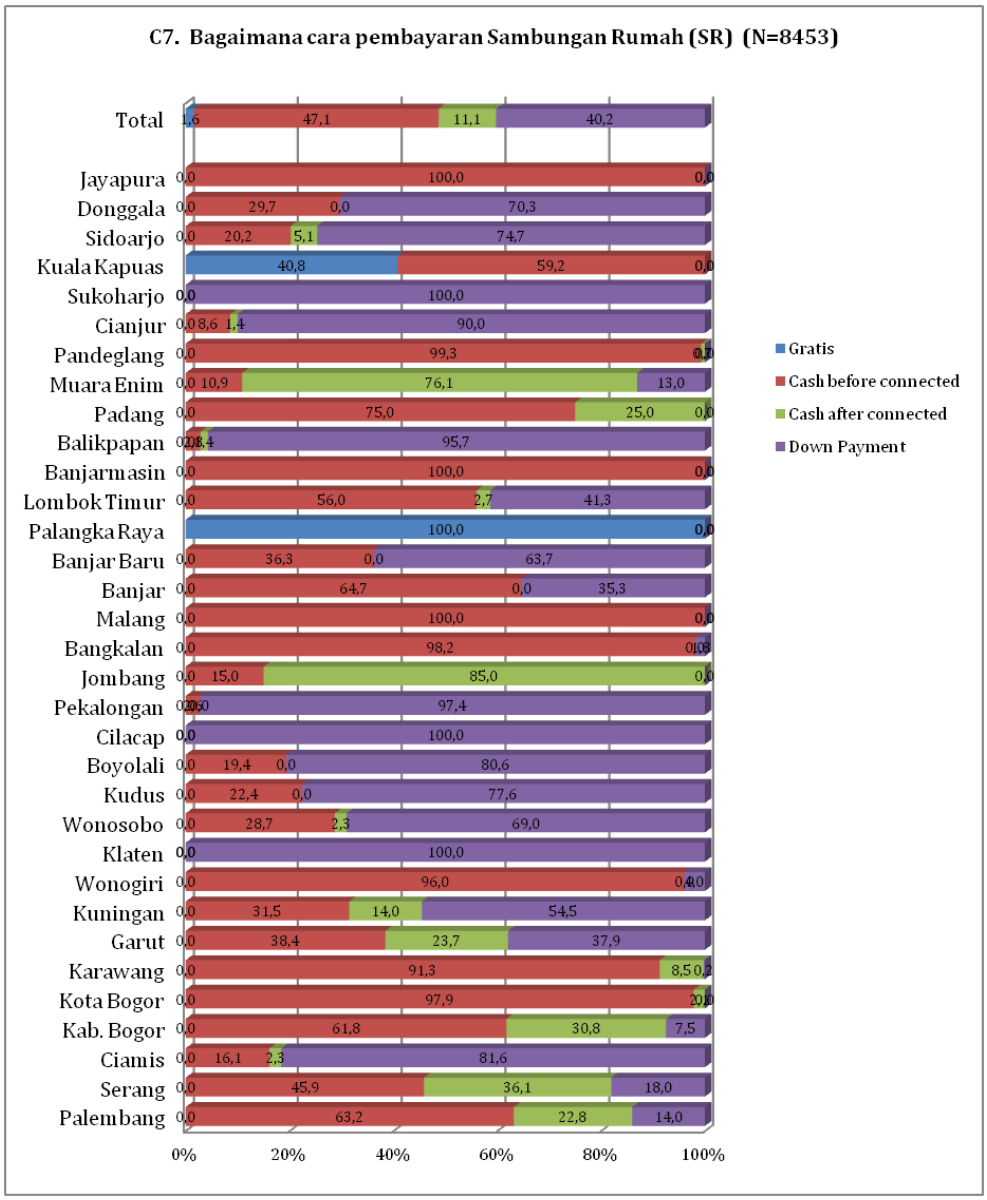


### 3.1.3.7 Payment Method of House Connection Fee to PDAM

As is shown in Figure 12, cash payment before connected (47,1percent) and down payment method (40,2percent) were two main payment method used to pay the connection fee. Only 11,1percent pay the connection fee after the house connections had been completed.

In Jayapura, Banjarmasin and Malang, the payment method entirely (100percent) use cash payment before connected. On the contrary, the payment method in Cilacap, Klaten and Sukoharjo use entirely (100percent) down payment method. No connection fee was charged for all respondents in Palangkaraya.

**Figure 12. Payment Method for Connection Fee**

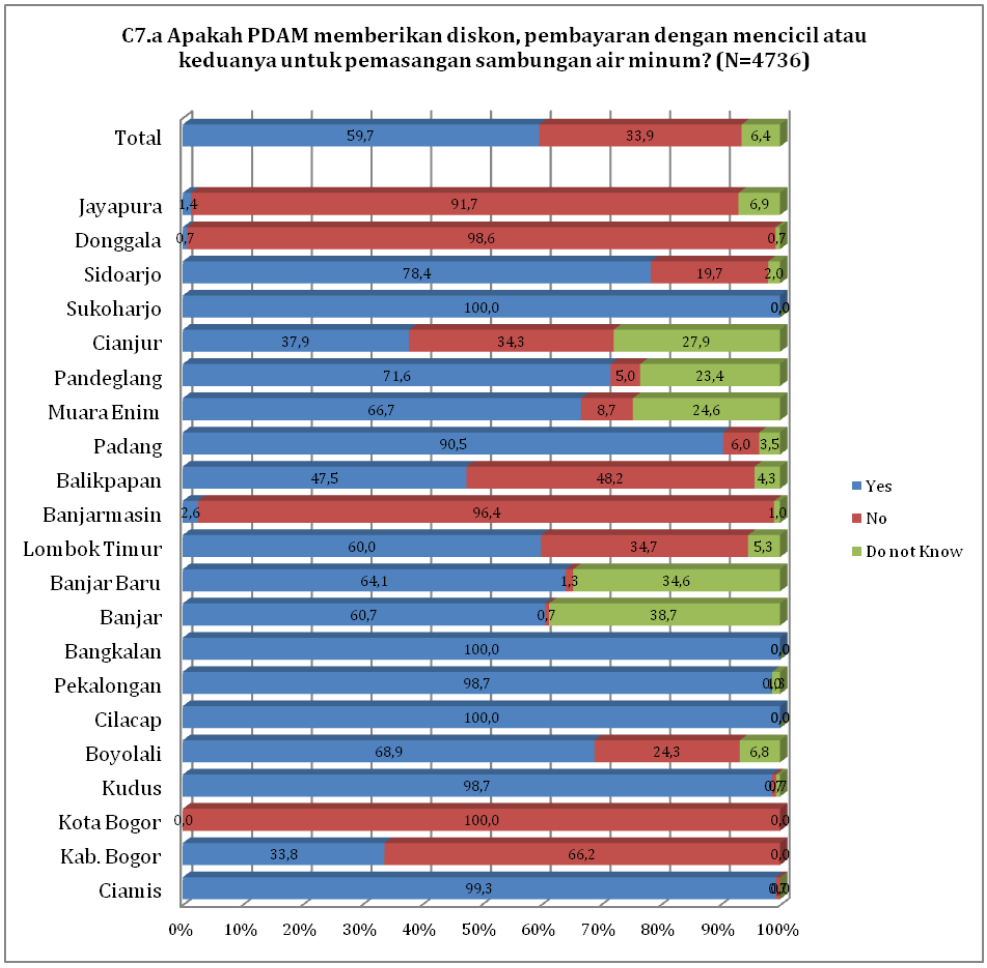


### 3.1.3.8 Discounted Payment of House Connection Fee

As is shown in Figure 13, in average, about 60percent of the respondents stated that they granted a discounted payment for House Connection Fee, 33.9percent stated did not granted any discounted payment and 6.4percent stated don't know.

The highest percentage of discounted payments was perceived by respondents in Kabupatens Sukoharjo, Bangkalan and Cilacap (100percent), followed by kabupaten Ciamis (99.3percent), Kudus and Pekalongan (98.7percent) and Padang (09.5percent). On the contrary, in kota Bogor (100percent), Banjarmasin (96.4percent), Donggala (98.6percent) and Jayapura (91.7percent) perceived that they did not receive any discount for house connection fee.

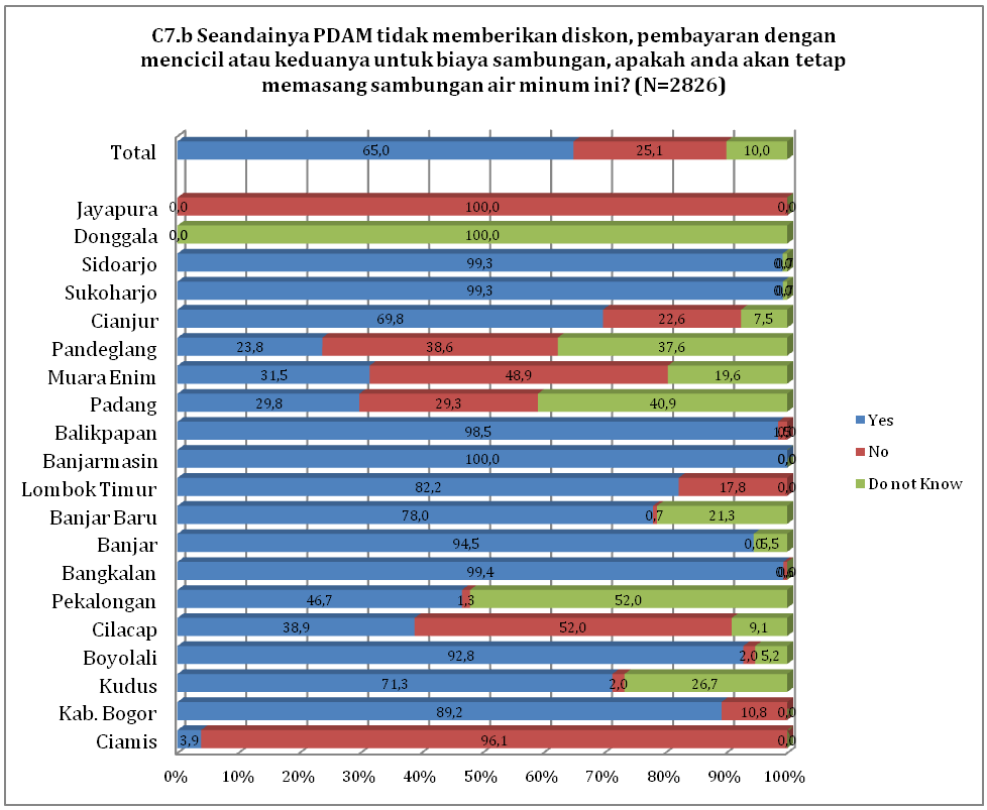
**Figure 13. Discounted Payment on Connection Fee**




### 3.1.3.9 Willingness to Keep Connected to PDAM even without Discount Payment

In average, the willingness to keep connected to PDAM piped water supply system even without discounted payment in is quite high i.e 59.7percent. The highest figure of willingness to keep connected was stated by respondents in Kota Banjarmasin (100percent) and followed by Kabupaten Bangkalan (99.4percent), Kabupaten Sukoharjo and Sidoarjo (99.3percent) and Balikpapan (98,5percent). On the contrary, all respondents in Jayapura (100percent) and most respondents in Kabupaten Ciamis (96.1percent) stated that they would not connect to PDAM system if no discount payment was granted. See the Figure 14 below for detail.

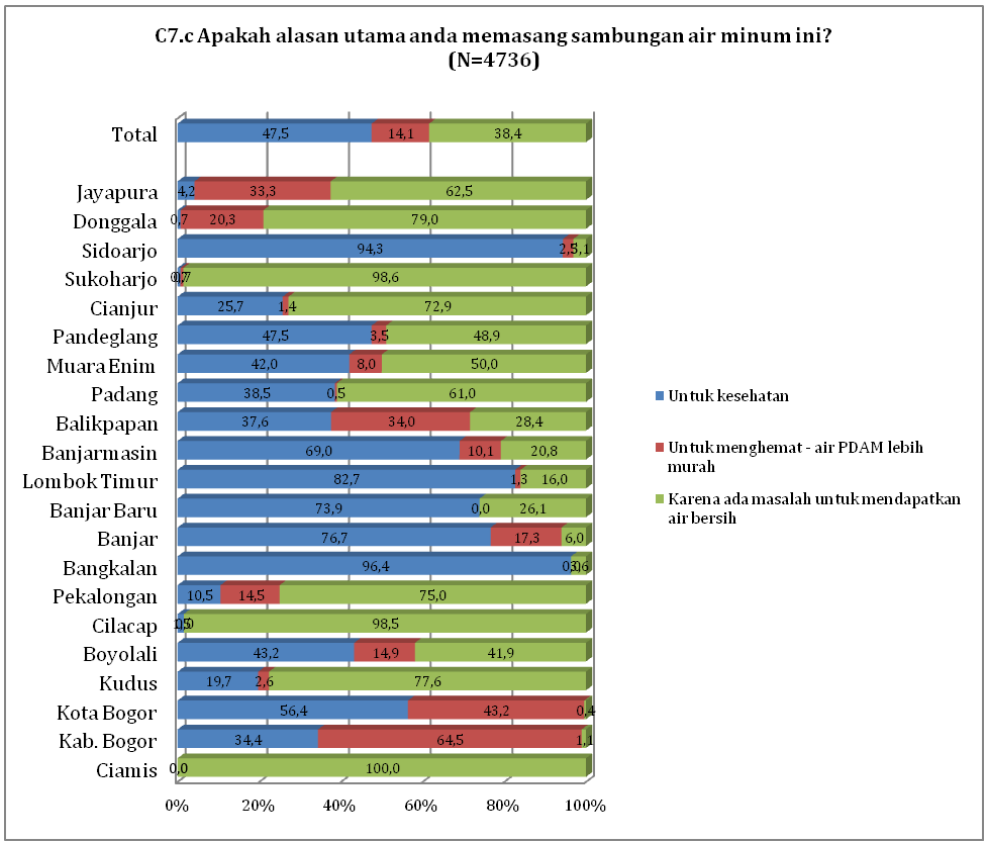
**Figure 14. Willingness to keep connected to PDAM System even without discount on connection fee**




### 3.1.3.10 Reasons for Connecting to PDAM system

The respondents in Kabupaten Ciamis (100percent), Sukoharjo (98,6percent), Cilacap (98.5percent), Donggala (79percent), Kudus (77percent), Pekalongan (75percent) and Cianjur (72.9percent) mentioned that the main reason of connecting to PDAM system was because they have problem to get clean water (in term of accessibility). Meanwhile, in kabupaten Sidoarjo (94.3percent) and Bangkalan (96.4percent) stated that the main reason for connecting to PDAM system was for healthy purposes. See figure 15 for detail insight.

**Figure 15. Reasons for Connecting to PDAM Piped Water Supply System**




### 3.1.3.11 Monthly Billing for PDAM Water Usage

Monthly billing for household water consumption range from as low as Rp 2,000 to as high as Rp 275.000 with average figure of Rp 32,863 and standard deviation (STD) of 16,364 as is summarised in Figure 16 below.

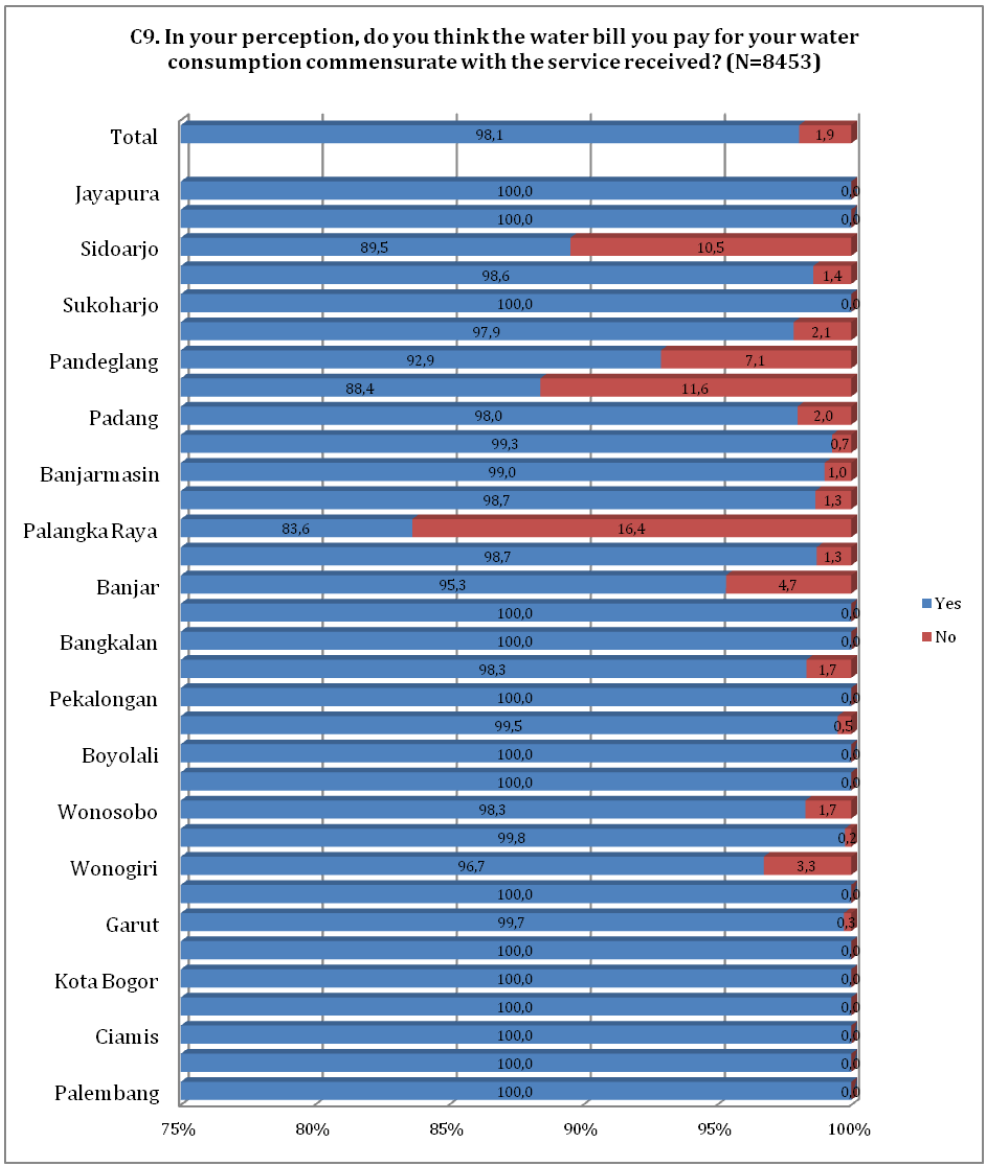
**Figure 16. Average Monthly Billing**

| C8. Berapa biaya rata-rata rekening per bulan untuk pemakaian air Rp | | | | |
|---|---|---|---|---|
| N | Minimum | Maximum | Mean | Std. Deviation |
| 8309 | 2000 | 275000 | 32863 | 16364 |

### 3.1.3.12 Respondent's Perception on Monthly Billing

Almost all respondents in all kabupatens/cities surveyed (98,1percent) perceived that the monthly billing they pay for PDAM piped water supply commensurate with the services they receive from PDAM. See Figure 17 for details.

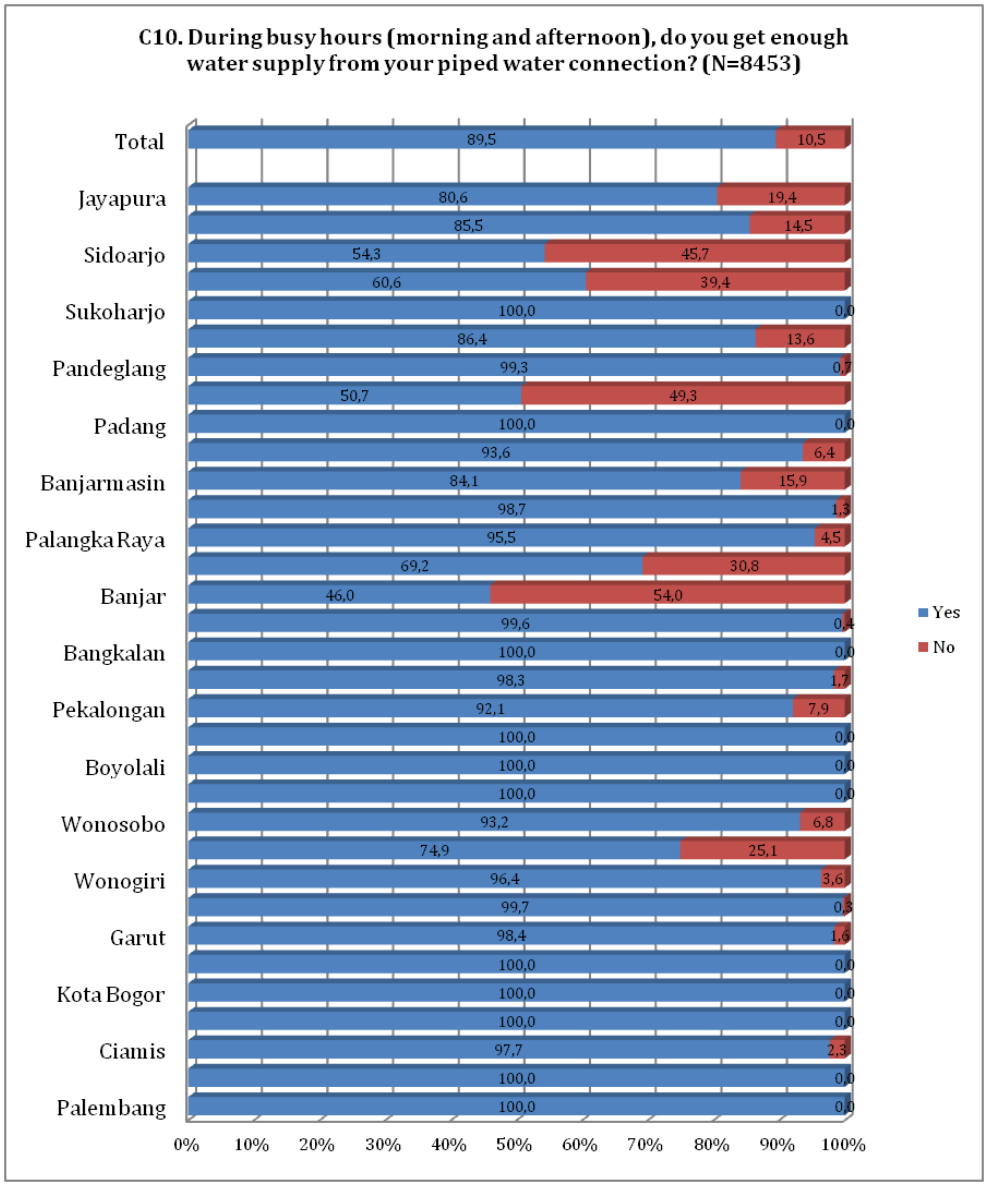
**Figure 17. Respondent's perception on water billing in relation with services they receive from PDAM**



### 3.1.3.13 Water Supply during Busy Hours

In general, most of the respondents (89,5percent) stated that they receive enough water even during the busy hours (morning and afternoon), except for respondents in Kabupaten Banjar (54percent) and Muara Enim (49.3percent) who stated that they did not receive enough water during the busy hours. The below figure shown the detail condition.

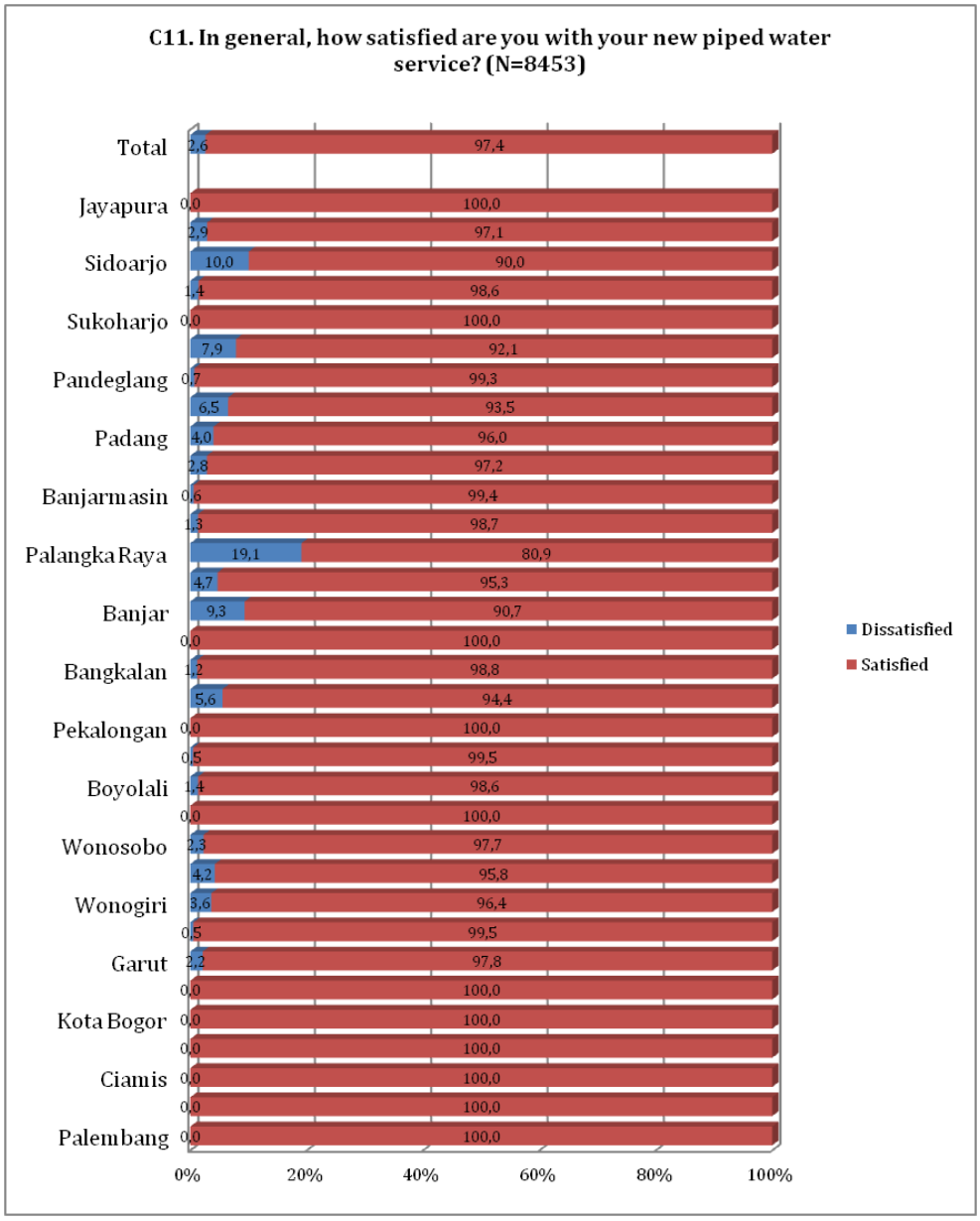
**Figure 18. Water Supply from PDAM During Busy Hours**



### 3.1.3.14 Customer Satisfaction Level for PDAM Services

As is shown in Figure 19, in general almost all respondents interviewed in all selected kabupatens/cities (97.4percent) stated that they satisfy with the service of piped water supply system provided by PDAM and only less than 30percent who stated otherwise. The highest dissatisfaction statement was expressed by respondent in Palangkaraya (19.1percent). The following Figure 4.19 shows the percentage of respondent's satisfaction level on PDAM services.

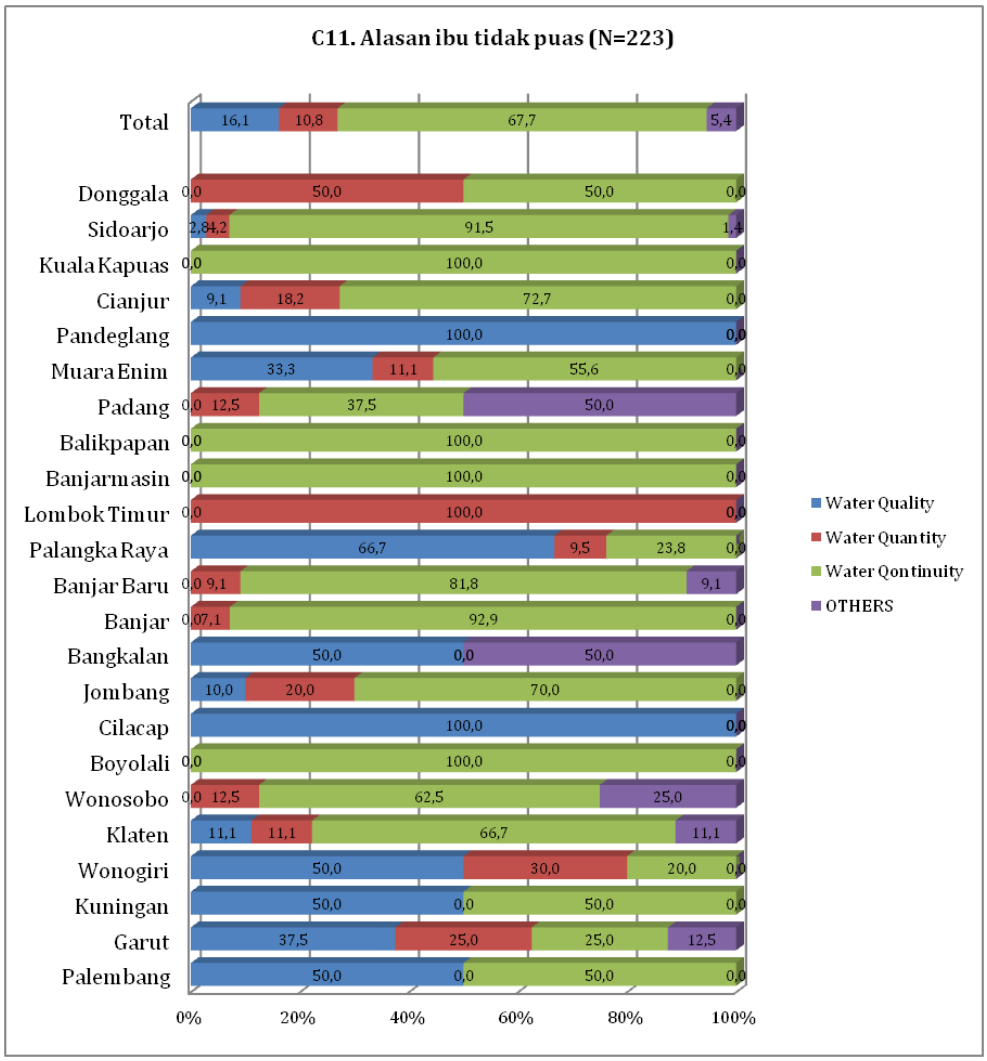
**Figure 19. Customer's Satisfaction Level on PDAM Services**



### 3.1.3.15 Reasons of dissatisfaction for the PDAM Services

Of the respondents who felt dissatisfied on PDAM services (233 households), mostly (67,7percent) stated that the un-continued flow of water was the main reason for their dissatisfaction. However, in Kabupaten Pandeglang and Cilacap (100percent) stated that the poor water quality was the main reason for their dissatisfaction and in Kabupaten Lombok Timur (100percent) stated that water quantity as the main reason. See Figure 20 for details.

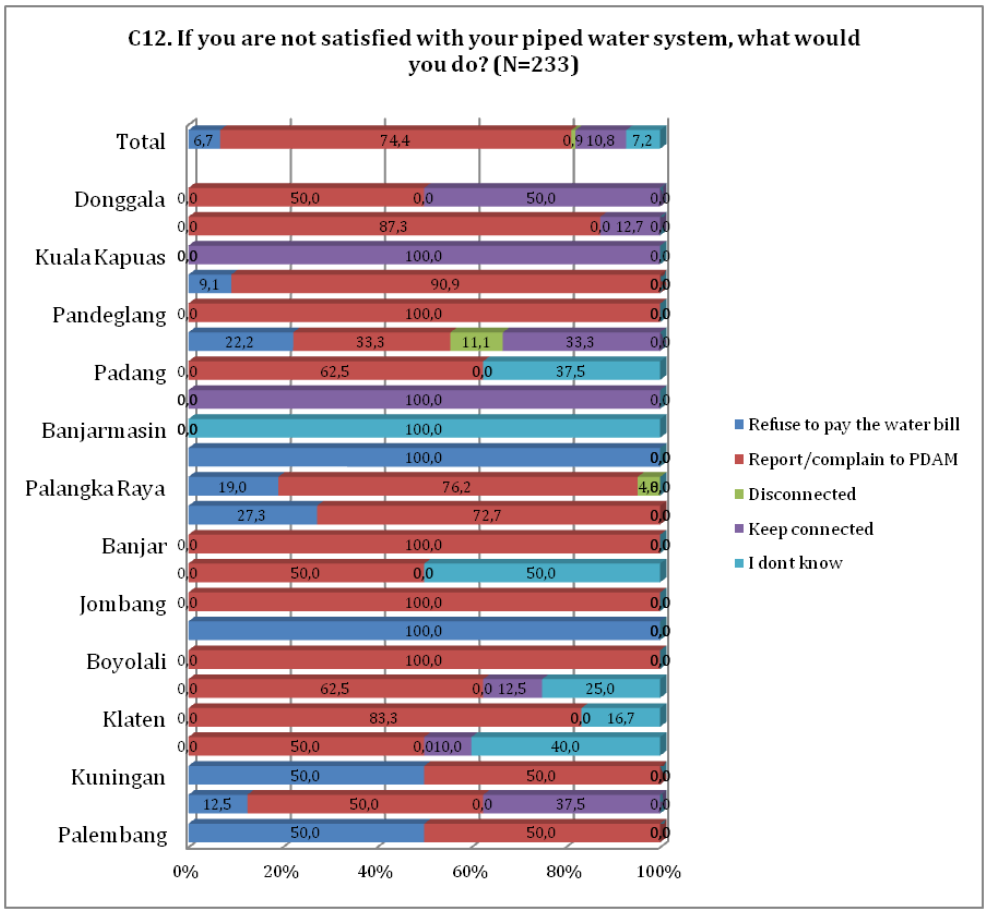
**Figure 20. Reasons of Respondent's Dissatisfaction on PDAM Services**



### 3.1.3.16 Actions will be taken upon dissatisfaction on PDAM services

As is shown in Figure 21, in average, most of the respondents (74.4percent) stated that they will report and complain to PDAM upon dissatisfaction of PDAM services. Almost 11percent of the respondents who will keep connected and only 6.7percent of the respondents who will not pay the water bill upon dissatisfaction attitude. However, in Kota Balikpapan and Kabupaten Kuala Kapuas, all respondents (100percent) stated that they still wanted to keep connected to PDAM piped water supply system although they felt dissatisfy on service level provided by PDAM. Meanwhile, all respondents (100percent) in kabupaten Pandeglang, Banjar, Boyolali and Jombang will complain to PDAM upon their dissatisfaction on PDAM services. The respondents who would refuse to pay the bill upon their dissatisfaction on PDAM services were stated by all respondents (100percent) in Kabupaten Cilacap and Lombok Timur.

**Figure 21: Actions Taken Upon Dissatisfaction on PDAM Services**



## 3.2. Sanitation Hibah

### 3.2.1. The length of house connections

Figure 22 shows that theaverage length of waste water (sanitation) house connection in the participated local goverments ranges between 0 to 12 months with average value of 6 months and deviation standard (STD) of 2,97.

**Figure 22. Average Length of Waste Water House Connection**

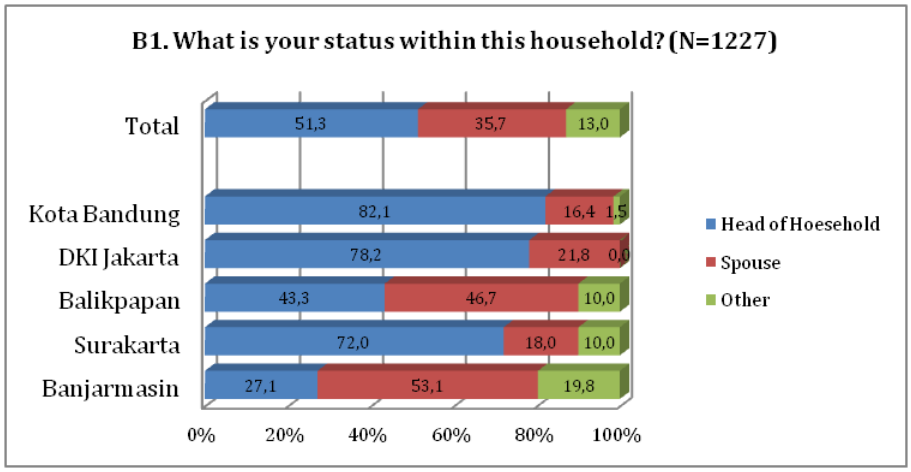
| A7. Length of time of having new connection ... months | | | | |
|---|---|---|---|---|
| N | Minimum | Maximum | Mean | Std. Deviation |
| 1227 | 0 | 12 | 6 | 2,97 |

### 3.2.2. Respondent's Characteristics of Water Supply Customers

#### 3.2.2.1 Respondent's Characteristics by Status

Figure 23 shows that in average the status of respondents was predominantly by head of households (51.3percent) as compared to their spouse (35.1percent) and other family members (13*percent). The dominance of Head of Households as respondents especially occurred in Kota Bandung (82.1percent), Jakarta (78.2percent) and Surakarta (72percent). However, in Kota Banjarmasin, the proportion of spouse respondents was higher than the Head of Household Respondents (53.1percent as compared to 27.1percent).

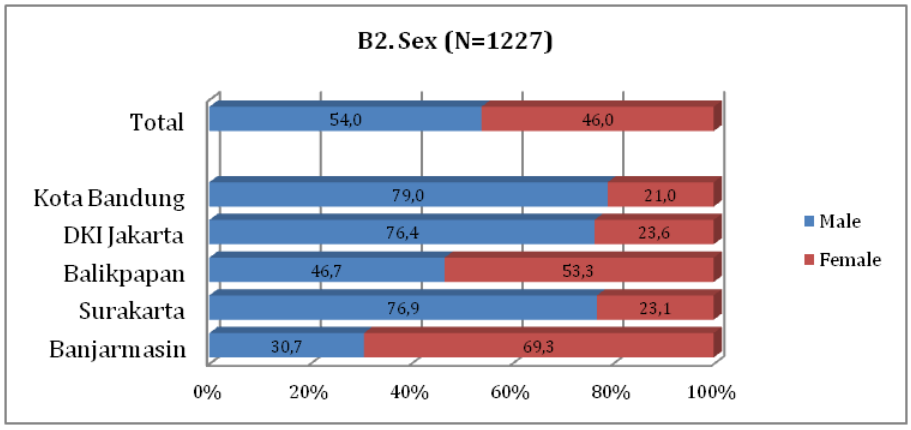
**Figure 23. Respondent's characteristics by status**



### 3.2.2.2 Respondent's Characteristics by Sex

As is presented in Figure 24, in average, the respondents were predominantly by men (54percent) as compared to women (46percent). The high percentage of men respondents, especially occurred in Kota Bandung (79percent), Kota Jakarta (76.4percent) and Kota Surakarta (76.9percent). In contrary the women respondents were higher for Kota Banjarmasin (53.1percent as compared to 27.1percent))

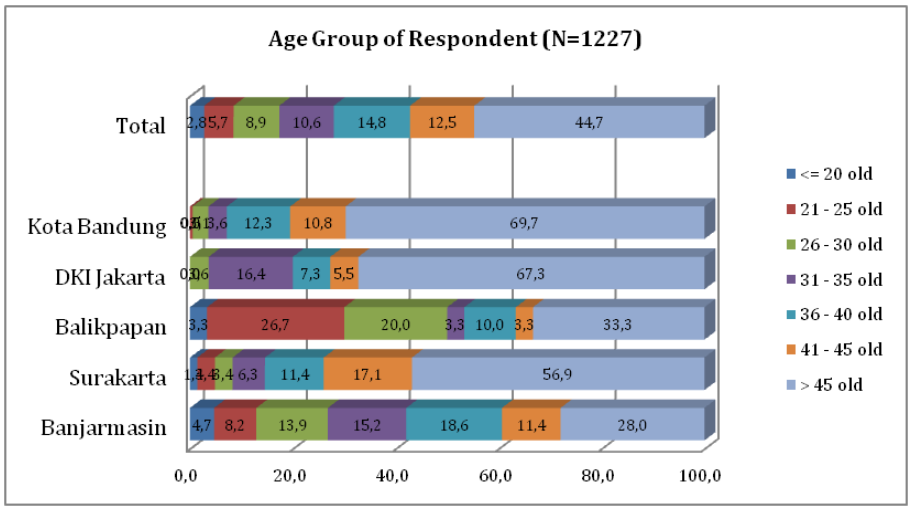
**Figure 24: Respondent's Characteristics by Sex**




### 3.2.2.3 Respondent's Characteristics by Age Groups

As is shown in Figure 25 (respondents based on age group classification), most of the respondents have an age of more than 45 years old (44.7percent), 36-40 years (14.8percent) and 41-45 years (12.5percent). The rest have an age of less than 35 years old.

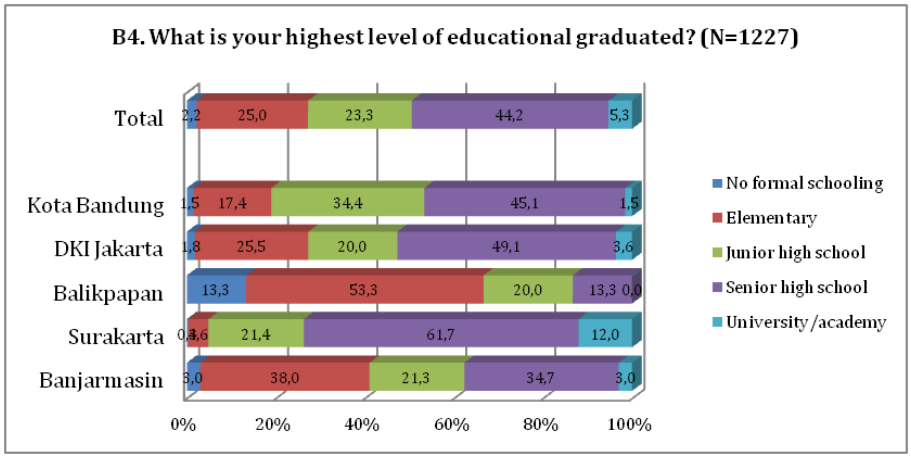
**Figure 25. Respondent's Characteristics by Age Groups**




### 3.2.2.4 Respondent's Characteristics by Education Level

In average, the education level of the respondents was predominantly by Senior High School (44.2percent), followed by Primary School (25percent) and Junior High School (23.3percent). See Figure 26 for details.

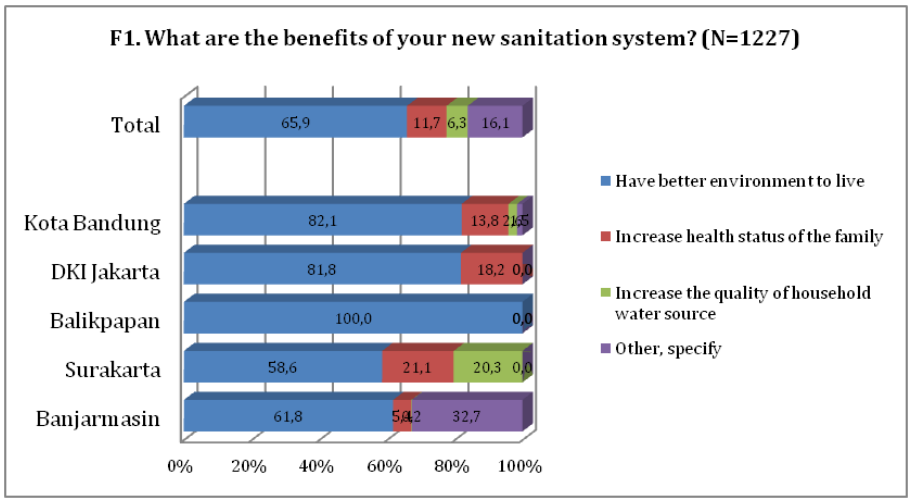
**Figure 26. Respondent's Characteristics by Education Level**




### 3.2.3 Main Benefits of Having Piped Waste Water Connection

In average, most of the respondents (65.9percent) stated that better environment to live was the main benefit of having piped waste water connection. This reason especially stated by all respondents (100percent) in Balikpapan. See below Figure 27 for details.

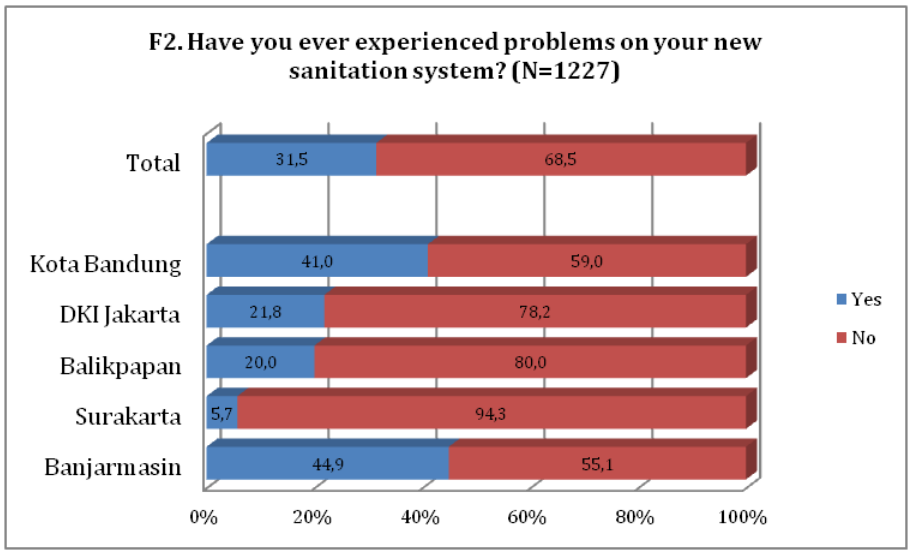
**Figure 27. Main Benefits of Having Piped Waste Water Connection**




### 3.2.4 Problems with New Piped Waste Water System

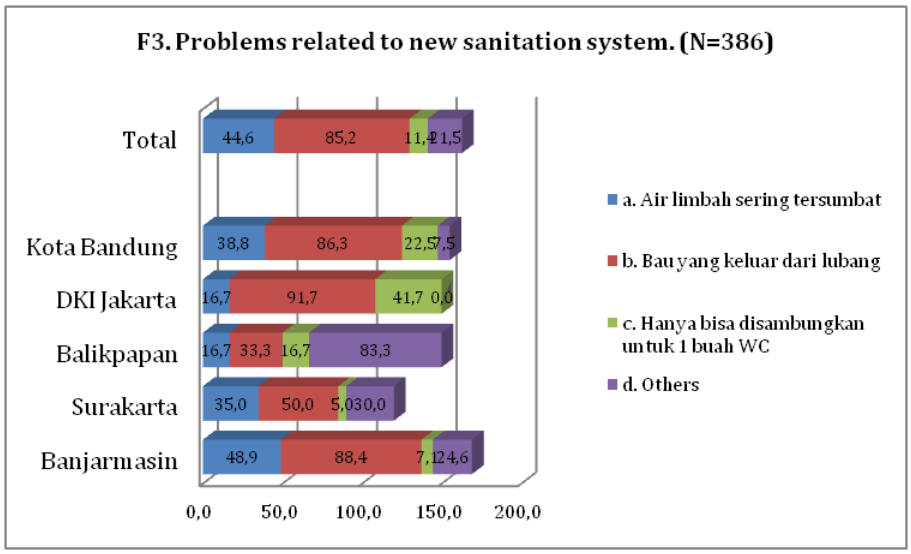
As is shown in Figure 28, in average, most of the respondents (68.5percent) stated that they did not have any problem with their new piped waste water system, while the rest (31.5percent) stated otherwise. The problem on the new piped waste water system was stated mostly by the respondents in Banjarmasin (44,9percent), followed by the respondents in Bandung (41percent).

**Figure 28. Problem with New Piped Waste Water System**




The type of the problems stated by the respondents was mainly in the form of bad smell from clean-out holes (85,2percent) , pipe clogged (44,6percent) and can only be connected to 1 WC (11,4percent). See Figure 29 below for detail.

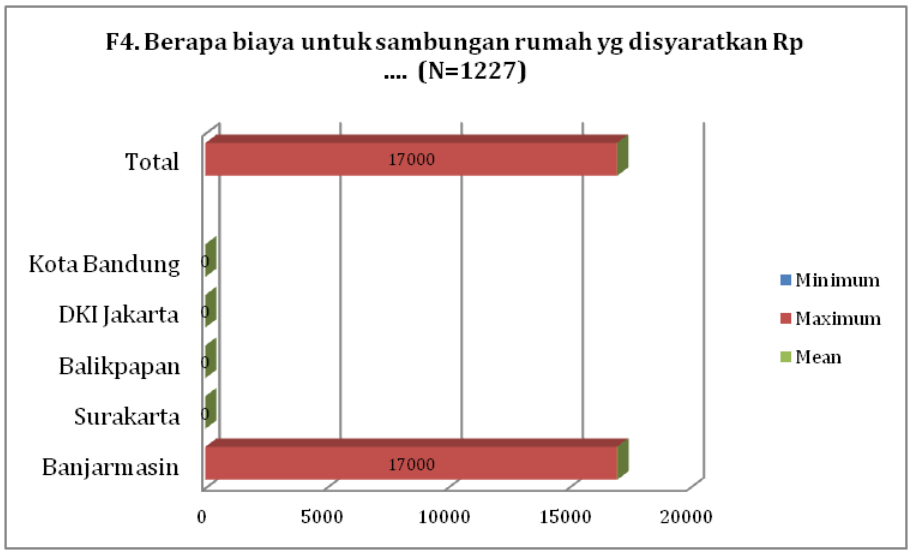
**Figure 29. Main Problems Encountered for Waste Water System**




### 3.2.5 House Connection Fee and Monthly Bill

For the exception of Banjarmasin in which each household should pay a connection fee of Rp 17,000 per HC, the household's connections in other places are free of charge. The following Figure 30 shows the survey result with regards to connection fee for waste water connection in the targeted area.

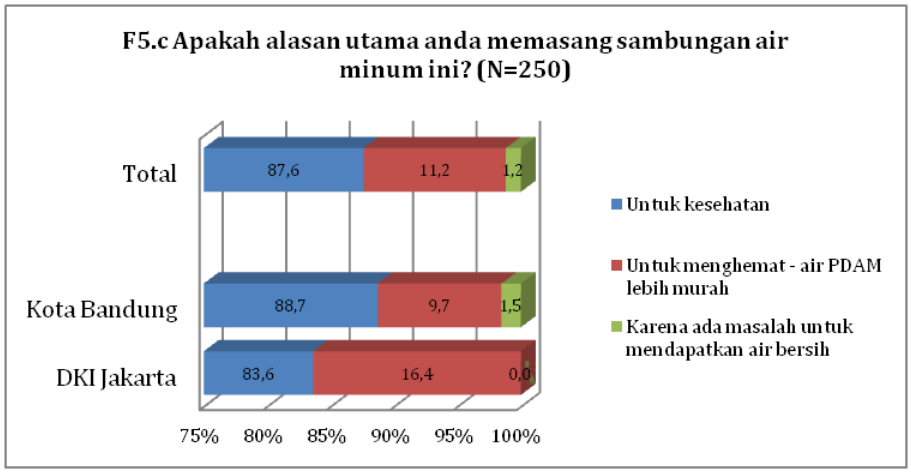
**Figure 30: Connection Fee for Waste Water Connection**




### 3.2.6 Reasons for Connecting to the Piped Waste Water System

In general, most of the respondents stated that the reason for connecting to the piped waste water system was for healthy reason (87.6percent) as is shown in the following Figure 31.

**Figure 31. Reasons for Connecting to the Piped Waste Water System**




### 3.2.7 Average Monthly Bill of Piped Waste Water Connection

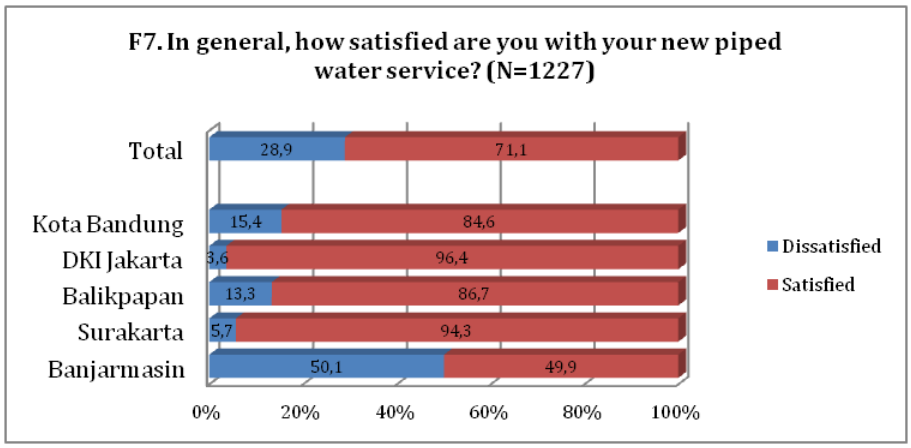
The average monthly bill of the piped waste water connection was Rp. 6641,- per household with deviation standard (STD) of 7154,2 as is shown in the following Table.

| F6. Berapa biaya rata-rata rekening bulanan Rp. ..... | | | | |
|---|---|---|---|---|
| N | Minimum | Maximum | Mean | Std. Deviation |
| 1227 | 0 | 104500 | 6641 | 7154,2 |

### 3.2.8 Customer's Satisfaction toward Piped Waste Water System

In average, 71.1percent of the respondents stated that they satisfied with the service provided by PDAM/ PDPAL on this piped waste water system, while 28.9percent of the respondents stated otherwise. Of those respondents who stated dissatisfied, mostly (50,1percent) was stated by the respondents in Banjarmasin. The following Figure 32 shows the detail.

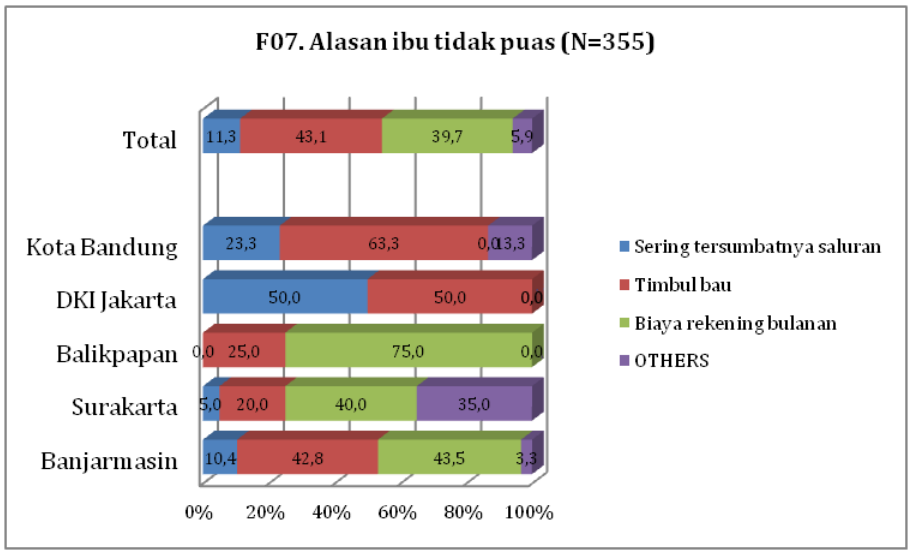
**Figure 32. Customer's Satisfaction toward Piped Waste Water System**




### 3.2.9 Main Factors that Lead to dissatisfaction for the new Piped Waste Water System

Main factors that lead to respondent's dissatisfaction on the new piped waste water system were bad smell (43,1percent), high monthly bill (39,7percent) and frequently clogging (11,3percent). The following Figure 33 shows the detail of the survey result.

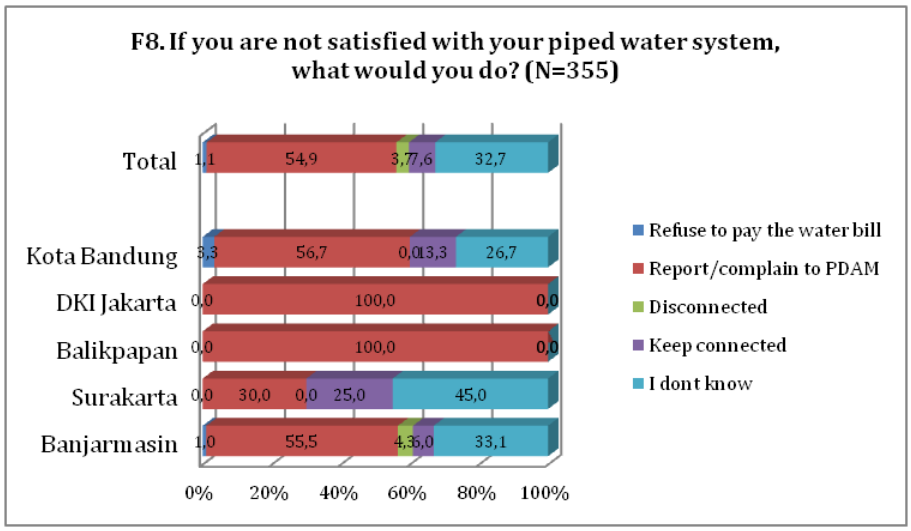
**Figure 33. Dissatisfaction Factors on Piped Waste Water System**




### 3.2.10Actions Would be Taken upon Dissatisfaction of New Piped Waste Water System

The following Figure 34 shows that more than half (54.9percent) of the respondents who felt dissatisfied on the new piped waste water system stated that they will report to PDAM/PDPAL for complaining, while 32percent of them stated don't know what to do. Only 7,6percent who stated that they would still keep connected to the system and only 0.7percent who decided to disconnect upon their dissatisfaction on the system provided.

**Figure 34. Actions would be Taken upon Dissatisfaction of New Piped Waste Water System**




## ANNEXE 2: LISTS OF VERIFIED HOUSE CONNECTIONS PER LOCAL GOVERNMENT

Lists of verified house connections for 38 local governments are provided in separate bundles of this report. Numbers of the implemented house connections per Kecamatan are listed in its location map.

# REFERENCES

SMEC International Pty Ltd. Sub-Consultancy Agreement with PT Mitra Lingkungan Dutaconsult. Indonesia Infrastructure Initiative. Mid-term Review and Verification Survey for Water and Sanitation Hibah. 3 November 2010. Jakarta, Indonesia.

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