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USAID INDONESIA URBAN WATER SANITATION AND HYGIENE

FINAL REPORT

MARCH 2011 – JUNE 2016



JUNE 2016

This document was produced for review for USAID/Indonesia by the Indonesia Urban Water, Sanitation and Hygiene (IUWASH) project, implemented by DAI, in accordance with ADS Chapter 320.3.2.4 (e) 05/05/2009 Revision.

Dadi Setya Wijanarko, one of Member of Community-based Organization from RW 022 Tanah Merah Jakarta Utara is testing of water flow from Master Meter System installed in this area. Beneficiary of Master Meter System is happy to have new access to safe water supply after they wait for years. This system gives benefit to 309 poor households.

Photo Credit: DES SYAFRIZAL

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TABLE OF CONTENTS

TABLE OF CONTENTS	IV
EXECUTIVE SUMMARY	VI
RINGKASAN EKSEKUTIF	VI
LIST OF ABBREVIATIONS AND ACRONYMS	XV
COVER STORY	XVIII
INTRODUCTION	1
HIGH LEVEL RESULTS & COMPONENT LEVEL PROGRESS	5
INTRODUCTION.....	5
HIGH LEVEL RESULTS	6
WATER SUPPLY SECTOR	8
Program WS-1: Improved PDAM Technical Aspects.....	13
Program WS-2: Improved PDAM Financial Aspects.....	22
Program WS-3: PDAM Customer Aspects.....	26
Program WS-4: Raw Water/Climate Change Adaptation.....	29
Program WS-5: Microfinance.....	33
Program WS-6: Master Meter	35
Program WS-7: Capital Expenditure Financing.....	37
Program WS-8: PDAM Institutional Support	40
SANITATION SECTOR	45
Program SAN-1: Access to Improved Sanitation through Individual Household Systems.....	48
Program SAN-2: Access to Improved Sanitation through Communal Systems	55
Program SAN-3: Increased Sanitation Access through Off-site Sanitation.....	59
Program SAN-4: Improved Urban Septage Management (IUSM)	62
Program SAN-5: Establishment and Development of Wastewater Management Units.....	67
CROSS-CUTTING SECTOR	70
Program CC-1: Increased Number of Local Government Policies.....	70
Program CC-2: Increased Local Government Budget (APBD).....	72
Program CC-3: Improved Citizen Engagement.....	73
Program CC-4: Gender Mainstreaming.....	75
Program CC-5: Mobilizing CSR Funding.....	78
GRANTS PROGRAM	80
REGIONAL PROGRAM	82
INTRODUCTION.....	82
NATIONAL ACTIVITIES AND EVENTS	99
INTRODUCTION.....	99
1. GENERAL PROGRAM MANAGEMENT	99
2. PROJECT COMMUNICATIONS.....	103
3. MONITORING AND EVALUATION.....	107
4. ENVIRONMENTAL COMPLIANCE.....	109
PROJECT MONITORING & EVALUATION	110
FINAL SUMMARY OF ACHIEVEMENT OF PMP OUTCOMES BY PROVINCE.....	113
ANNEXES	125
ANNEX 1: WATER SUPPLY MATRIX	125
ANNEX 2: SANITATION MATRIX	126
ANNEX 3: CROSS CUTTING PROGRAM MATRIX.....	128

ANNEX 4: FINAL STATUS OF IUWASH POLICY DEVELOPMENT SUPPORTED WATSAN SECTOR, JUNE 2016

.....	129
ANNEX 5: LOCAL GOVERNMENT BUDGET (APBD) ALLOCATION	144
<i>Annex 5a: APBD ALLOCATION FOR WATER AND SANITATION (RP Million)</i>	144
<i>Annex 5b: APBD ALLOCATION FOR WATER AND SANITATION (% of APBD)</i>	146
<i>Annex 5c: APBD ALLOCATION (RP MILLION) During IUWASH Program</i>	148

EXECUTIVE SUMMARY

The USAID Indonesia Urban Water, Sanitation and Hygiene or "IUWASH" project (USAID Contract No. AID-497-C-11-00001) has been a five-year, four-month, \$40.7 million initiative designed to support the Government of Indonesia (GOI) in achieving its safe water and sanitation Millennium Development Goal (MDG) targets as well as the GOI's target of Universal Access to water and sanitation services which was established in the latter years of the project. In undertaking its work, the IUWASH Project has partnered with Indonesian government agencies (central, provincial, and local), local government-owned water utilities (PDAMs), sector associations, NGOs, communities, universities, and the private sector.

This is the Final Report issued under IUWASH and covers the period of March 03, 2011 through project completion on July 03, 2016. This report also serves as the final two (2) Quarterly Progress Reports (QPRs) under the project, covering the period from January 01 through March 31, 2016 and April 01 through project completion. As such, this report includes detailed information on accomplishments and issues encountered cumulatively over the life of the project, as well as highlights of its final six months. These are set forth according to the project's main areas of activity, namely: water supply, sanitation, those that are "cross-cutting" or common to both, as well as small grants and key program management considerations. Its development was very much a team effort and it is meant to be widely shared and disseminated.

Main Achievements:

In close collaboration and partnership with GOI agencies and sector initiatives, some of which are described further below, IUWASH measured progress based on the achievement of high-level results and targeted outcomes as defined in the IUWASH Performance Monitoring Plan (PMP). Among many achievements during the course of implementation, those related to the project's high-level results included:

RINGKASAN EKSEKUTIF

Proyek USAID Indonesia Urban Water, Sanitation and Hygiene atau "IUWASH" (USAID Contract No. AID-497-C-11-00001) telah berjalan selama lima tahun empat bulan dengan biaya \$40.7 Juta. Proyek ini dirancang untuk mendukung Pemerintah Indonesia dalam mencapai target Millennium Development Goal (MDG) untuk air minum dan sanitasi sekaligus untuk mendukung pencapaian target Akses Universal air minum dan sanitasi yang mulai diluncurkan di akhir periode proyek. Dalam melakukan tugasnya, Proyek IUWASH telah bermitra dengan lembaga-lembaga Pemerintah Indonesia baik di pusat, provinsi, maupun di daerah, serta PDAM, asosiasi keahlian untuk sector air minum dan sanitasi, LSM, kelompok masyarakat, perguruan tinggi, dan sektor swasta.

Laporan Akhir yang disusun oleh IUWASH mencakup periode 3 Maret 2011 sampai berakhirnya proyek pada tanggal 3 Juli 2016. Laporan ini juga mencakup 2 Laporan Kinerja Kuartal proyek untuk periode 1 Januari sampai 31 Maret 2016 dan periode 1 April 2016 sampai periode akhir proyek. Dengan demikian, laporan ini mencakup informasi rinci tentang pencapaian dan masalah yang dihadapi secara kumulatif selama periode proyek, serta sorotan dari enam bulan terakhir. Hal ini ditetapkan sesuai dengan bidang utama kegiatan, yaitu: air bersih, sanitasi, "lintas sektor" dan hal-hal yang menjadi perhatian utama pengelolaan program. Laporan ini merupakan hasil kerja tim, dengan kontribusi yang diterima dari semua staf dan dimaksudkan untuk dibagikan secara luas.

Pencapaian Utama:

Dalam kerjasama erat dan kemitraan dengan lembaga Pemerintah dan mitra lainnya, beberapa di antaranya dijelaskan lebih lanjut di bawah ini, IUWASH mengukur perkembangan berdasarkan prestasi proyek dengan hasil tingkat tinggi dan hasil yang ditargetkan sebagaimana didefinisikan dalam Rencana Pengawasan Kinerja (Performance Monitoring Plan atau PMP). Di antara beberapa pencapaian selama pelaksanaan proyek, yang berkaitan dengan hasil tingkat tinggi proyek termasuk:

- HR-1: The number of people that gained access to improved water supply reached 2,505,560 or 104.40% of the targeted amount.
 - HR-2: The number of people that gained access to improved sanitation services reached 300,635 or 120.25% of the targeted amount.
 - HR-3: The per unit water cost paid by poor households in targeted communities decreased by 57% or 285% of the targeted amount.
 - HR-4: The number of participants in IUWASH-sponsored trainings reached 105,537 or 105.54% of the targeted amount.
- HR-1: Jumlah masyarakat yang telah memiliki akses ke sumber air bersih yang lebih baik mencapai 2,505,560 atau 104.40% dari jumlah yang ditargetkan;
 - HR-2: Jumlah masyarakat yang telah memiliki akses ke pelayanan sanitasi yang lebih baik mencapai 300,635 atau 120.25% dari jumlah yang ditargetkan;
 - HR-3: Biaya air per unit yang dibayar oleh masyarakat miskin di masyarakat sasaran telah menurun hingga 57% atau 285% dari target yang ditetapkan;
 - HR-4: Jumlah peserta pelatihan yang disponsori IUWASH mencapai 105.537 peserta atau 105.54% dari jumlah yang ditargetkan.

Much additional information on the above and the project's other targeted outcomes is available in Annex.

Informasi tambahan lain dari pencapaian di atas ini dan pencapaian hasil proyek lainnya tersedia di Lampiran.

Partnerships

Recognizing that its own success would fully depend on its ability to effectively work with others, IUWASH applied much effort throughout program implementation in developing strong partnerships with central government agencies, local governments, WASH service providers, donors, the private sector and CSOs in all work areas. Among many examples, notable work with other institutions included collaboration with:

- BAPPENAS through the on-going guidance and support it provides through its leadership of the project's Tim Teknis (Steering Committee) and multiple other forums.
- Ministry of Public Works and Housing (MPWH) on PDAM performance improvement, energy efficiency audits, long-term finance, and multiple areas related to sanitation development.
- Ministry of Health (MOH) on improved approaches to community-based sanitation promotion and hygiene behavior change.
- Ministry of Finance (MOF) on support of PDAM debt restructuring and long-term finance.
- Ministry of Home Affairs (MOHA) as concern local government policy and institutional development.

Kemitraan

Menyadari bahwa kesuksesan ini tidak dihasilkan sendiri sepenuhnya dan sangat tergantung pada kemampuan untuk secara efektif bekerja dengan pihak lain, IUWASH menetapkan banyak upaya di seluruh pelaksanaan program untuk mengembangkan kemitraan yang kuat dengan pemerintah pusat, pemerintah daerah, penyedia layanan sector air minum dan sanitasi, donor, sektor swasta dan organisasi masyarakat sipil di semua wilayah proyek. Di antara banyak contoh, kemitraan utama dengan institusi lain termasuk bekerja sama dengan:

- BAPPENAS melalui arahan dan dukungan secara terus menerus melalui kepemimpinan dari Tim Teknis proyek (Steering Committee) dan beberapa forum lainnya;
- Kementerian Pekerjaan Umum pada peningkatan kinerja PDAM, audit efisiensi energi, pembiayaan jangka panjang dan berbagai area yang berkaitan dengan pengembangan sanitasi;
- Kementerian Kesehatan pada pengembangan pendekatan dalam mendukung promosi sanitasi dan kesehatan;
- Kementerian Keuangan pada dukungan restrukturisasi hutang PDAM dan pendanaan jangka panjang;
- Kementerian Dalam Negeri terkait kebijakan pemerintah daerah dan pengembangan institusional;

- Ministry of Women’s Empowerment and Protection of Child’s Rights (MWEPCR) on gender mainstreaming and in implementing LG-based gender-responsive planning and budgeting.
- BPPSPAM on issues related to PDAM performance monitoring and capital infrastructure finance.
- PERPAMSI, the Indonesia association of water utilities on overall capacity building.
- Perhutani/PTPN, the state run forestry agency, on the recharge of critical aquifers.
- A host of donor organizations, including the World Bank/WSP on urban septage management; the Asian Development Bank (ADB) on a wide range of areas in both water supply and sanitation development; the Dutch-funded Urban Sanitation Development Program-II (USDP-II); Australia’s DFAT on several areas of mutual interest under, in particular the Indonesia Infrastructure Initiative (IndII); and Water.Org on microfinance programming for low-income (MBR) households
- Coca-Cola Foundation Indonesia (CCFI) in the of area aquifer recharge.
- PT Nestlé Indonesia in the of area aquifer recharge.
- University of Technology Sydney (UTS) on wastewater regulation development.
- Several other USAID offices and programs and a wide range of other donors, national and local agencies, NGOs, community-based organizations, and private sector agencies.
- Perlindungan Hak Anak dalam mendukung peningkatan kapasitas mitra IUWASH untuk pelaksanaan PPRG (Perencanaan dan Penganggaran Responsif Gender);
- BPPSPAM mengenai persoalan yang berkaitan kepada pengawasan kinerja dan pembiayaan jangka panjang PDAM;
- PERPAMSI, Persatuan Penyedia Air Minum (PDAM) Seluruh Indonesia pada pengembangan kapasitas;
- Perhutani/PTPN, Perusahaan Hutan Negara Indonesia, tentang pengembalian air ke alam dan perlindungan air permukaan;
- Lembaga Donor seperti World Bank/WSP untuk pengelolaan air limbah perkotaan; Asia Development Bank (ADB) pada berbagai bidang pada sektor persediaan air dan pengembangan sanitasi; Urban Sanitation Development Program II (USDP-II) yang didanai oleh pemerintah Belanda; Australia/DAFT pada beberapa area dengan perhatian yang sama dibawah program Indonesia Infrastructure Initiative (IndII); dan Water.Org, dalam pemrograman mikro-kredit bagi rumah tangga masyarakat berpenghasilan rendah (MBR);
- Coca-Cola Foundation Indonesia (CCFI) untuk pengembalian air ke alam;
- PT Nestlé Indonesia untuk pengembalian air ke alam;
- University of Technology Sydney (UTS) untuk penyusunan regulasi terkait pembangunan system limbah domestik
- Beberapa proyek dan kantor USAID Indonesia dan donor lain yang lebih luas (lembaga nasional dan local), LSM, Organisasi Masyarakat Sipil dan lembaga sector swasta.

As concerns specific programmatic areas which contribute to overall IUWASH progress these are divided into four main areas: (i) water supply; (ii) sanitation; (iii) crosscutting areas; and (iv) grants. Specific progress under each programmatic area is detailed below.

Water Supply (WS) Programs

One of the primary objectives of IUWASH has been to increase access to improved water for 2.4 million people. This has involved supporting local water

Ditambahkan beberapa bidang program khusus yang berkontribusi untuk pencapaian hasil IUWASH secara keseluruhan ini dibagi menjadi empat bidang utama, yaitu: (i) penyediaan air minum; (ii) sanitasi; (iii) daerah lintas sektor; dan (iv) Program Hibah. Pencapaian hasil untuk masing-masing sector dirinci di bawah ini.

Program Penyediaan Air Bersih (WS)

Salah satu tujuan utama IUWASH adalah untuk meningkatkan akses ke air bersih yang lebih baik untuk 2,4 juta orang. Hal ini melibatkan para PDAM

utilities (PDAMs) in improving their overall operational capacity, as well as addressing important concerns related to governance, customer feedback, raw water availability, long-term capital finance, and similar areas. Notable highlights in the eight (8) task areas of IUWASH Water Supply (WS) programming are as follows:

- *WS-1, Improved PDAM Technical Aspects:* Completed Energy Efficiency Audits for 14 PDAMs, as well as a “PDAM Energy Efficiency Guide” and a “Best Practices” booklet in collaboration with MPWH. Also, provided training and/or technical assistance in NRW reduction for 37 PDAMs and in distribution network improvement for 19 PDAMs; supported the process of 13 PDAMs in obtaining APBN/APBD funding for water system expansion (including PDAM Tirtanadi and DeliSerdang for Mebidang); and provided broad support to GIS and MIS development
 - *WS-2, Improved PDAM Financial Aspects:* Facilitated the development of 34 PDAM corporate plans; supported 26 PDAMs in tariff adjustments and/or reclassification, with 18 ultimately being approved by their LG owners; and worked with 17 utilities to improve billing, accounting and other management systems.
 - *WS-3, PDAM Customer Aspects:* Establishment of 23 Customer Communication Forums and new communications mechanisms (customer gatherings, radio shows, websites, etc.) in these same areas.
 - *WS-4, Raw Water/Climate Change Adaptation:* Facilitated Climate Change Vulnerability Adaptation Action Plans (CCVAAPs) in 21 locations; developed a Climate Change Adaptation toolkit to encourage replication; facilitated the development of 3,770 infiltration ponds (*sumur resapan*); and provided comprehensive trainings in these areas for 210 participants from partner LGs, PDAMs, NGOs, CSR forums, and central-level agencies.
- pendukung dalam menanggulangi permasalahan operasional mereka secara keseluruhan, serta menangani masalah penting yang berkaitan dengan tata kelola, keluhan pelanggan, ketersediaan air baku, pembiayaan jangka panjang dan hal-hal lain terkait dengan bidang teknis dan admistrasi. Sorotan penting yang dihasilkan oleh Delapan (8) Program IUWASH Sektor Penyediaan Air Bersih adalah sebagai berikut:
- *WS-1, Peningkatan Aspek Teknis PDAM:* Menyelesaikan Program Efisiensi Energi untuk 14 PDAM, serta Panduan "Efisiensi Energi PDAM" dan buklet "Best Practices" yang bekerjasama dengan Kementerian Pekerjaan Umum dan Perumahan Rakyat. Juga, memberikan pelatihan dan / atau bantuan teknis dalam pengurangan NRW bagi 37 PDAM dan Program Perbaikan Jaringan Distribusi bagi 19 PDAM; mendukung proses penggalangan dana APBN/APBD bagi 13 PDAM (untuk ekspansi sistem penyediaan air bersih termasuk PDAM Tirtanadi dan Deli Serdang untuk Mebidang); dan memberikan dukungan luas untuk pengembangan GIS dan MIS.
 - *WS-2, Peningkatan Aspek Keuangan PDAM:* Membantu penyusunan Rencana Perusahaan bagi 34 PDAM; mendukung 26 PDAM untuk penyesuaian tarif dan / atau reklasifikasi pelanggan, hasilnya 18 PDAM akhirnya disetujui oleh Pemerintah Daerahnya; dan bekerja dengan 17 PDAM untuk meningkatkan sistem tagihan, akuntansi dan sistem manajemen lainnya.
 - *WS-3, Aspek Pelanggan PDAM:* Pembentukan 23 Forum Komunikasi Pelanggan dan mekanisme komunikasi baru (pertemuan pelanggan, acara radio, website, dll);
 - *WS-4, Konservasi Air Baku / Adaptasi Perubahan Iklim:* Memfasilitasi penyusunan Rencana Aksi Kerentanan dan Adaptasi Perubahan Iklim di 21 lokasi; menyusun toolkit Adaptasi Perubahan Iklim untuk mendorong replikasi; memfasilitasi pembangunan 3.770 sumur resapan; dan memberikan pelatihan komprehensif di daerah-daerah bagi 210 peserta dari mitra Pemda, PDAM, LSM, forum CSR, dan lembaga di tingkat pusat.

- *WS-5, Microfinance*: Established microfinance programs for improved access to water supply for low income populations in 21 locations, benefitting 16,971 households.
- *WS-6, Master Meter*: Facilitated the construction and development of 25 Master Meter systems in six municipalities, benefitting more than 10,150 urban poor people and serving as demonstration sites for replication.
- *WS-7, Capital Expenditure Financing*: Provided technical support for 18 Capital Finance projects, in 12 locations across all IUWASH regions, including 10 completed projects and 8 in process. Also, assisted 27 PDAMs in developing debt restructuring plans (24 were approved, but 3 are followed up by PUPN/State Debt Management Committee); and developed the Creditworthiness Ladder (CWL), a PDAM financial assessment tool now used by BPPSPAM, World Bank and available on the NAWASIS website.
- *WS-8, PDAM Institutional Support*: Provided significant assistance in programs to support the development of regional approaches to raw water utilization; and in improving PDAM governance and internal structures through Supervisory Board training, water supply management courses, Visioning Workshops for LG and PDAM leadership, inclusion and training of DPRD members in multiple activities, and on-the-job capacity building for PDAM employees in such areas as the development of Standard Operating Procedures (SOPs), job descriptions, etc.
- *WS-5, Kredit Mikro*: Mengembangkan program kredit mikro untuk meningkatkan akses air minum bagi masyarakat berpenghasilan rendah di 21 lokasi, yang memberikan manfaat bagi 16.971 rumah tangga.
- *WS-6, Program Master Meter*: Memfasilitasi pembangunan dan pengembangan 25 sistem Master Meter di enam kota, yang memberikan manfaat bagi lebih dari 10.150 masyarakat berpenghasilan rendah di perkotaan dimana ini menjadi lokasi percontohan untuk replikasi.
- *WS-7, Capital Expenditure Financing*: Menyediakan dukungan teknis bagi 18 proyek Capital Finance, di 12 lokasi di seluruh wilayah IUWASH, termasuk 10 proyek yang berhasil diselesaikan dan 8 proyek yang masih dalam proses. Juga, membantu 27 PDAM dalam menyusun rencana restrukturisasi utang (24 PDAM telah mendapatkan persetujuan, namun 3 PDAM masih harus mengikuti proses di PUPN/Panitia Urusan Piutang Negara); dan menyusun metode Creditworthiness Ladder (CWL), sebagai alat untuk menilai keuangan PDAM yang sekarang telah digunakan oleh BPPSPAM, Bank Dunia dan tersedia di situs NAWASIS.
- *WS-8, Dukungan Kelembagaan PDAM*: Menyediakan bantuan yang signifikan terhadap program untuk mendukung pengembangan regionalisasi pengelolaan air baku PDAM; dan peningkatan tata kelola PDAM dan struktur internal melalui pelatihan Dewan Pengawas, training bagi manajer PDAM, Lokakarya Visioning untuk Pemda dan kepemimpinan PDAM, pelatihan bagi anggota DPRD, dan pengembangan kapasitas melalui on-the-job training bagi karyawan PDAM di wilayah dampingan untuk penyusunan Standar Operasional Prosedur (SOP), pembagian tugas, dll

Sanitation (SAN) Programs

Another key objective of IUWASH was to increase access to safe sanitation for 250,000 people, which involved supporting local governments on a range of activities—from the promotion of individual, communal and citywide systems, to putting in place the institutional support structures upon which such systems depend. Utilizing the project’s Urban

Program Sanitasi (SAN)

Tujuan utama lain dari IUWASH adalah untuk meningkatkan akses kepada sanitasi yang aman untuk 250.000 penduduk, yang melibatkan dukungan dari pemerintah daerah dalam berbagai kegiatan - mulai dari promosi sistem sanitasi individu, komunal dan seluruh kota, hingga membangun sistem serta struktur pendukung dimana sistem tersebut

Wastewater Management Framework as a guide, highlights in the five (5) “SAN” task areas of IUWASH Sanitation programming are as follows:

- *SAN-1, Access to Improved Sanitation through Individual Household Systems:* Facilitated access to improved sanitation for approximately 131,105 people through multiple activities including: the development of sanitation microfinance programs in 25 locations; preparation of “Improving Lifestyle and Health: A Guide to Urban Sanitation Promotion” as well as a companion training-of-trainer (TOT) training modules; dissemination of a range of supporting IEC materials, including videos, flip charts, posters, stickers, etc. (many of which are available on YouTube or the project’s website); development and implementation of training programs for micro-level sanitation entrepreneurs, primarily those engaged in the construction of household septic systems; and implementation of a TOT program in urban-focused sanitation promotion for 150 staff from district-level health and other departments.
 - *SAN-2, Access to Improved Sanitation through Communal Systems:* Utilizing the approaches developed above, improved access to and sustainability of communal sanitation systems serving about 138,930 people. Work involved substantial coordination with other agencies funding construction of the systems, as well as much assistance in capacity development for CBOs charged with local oversight of the systems.
 - *SAN-3, Increased Sanitation Access through Off-site Sanitation:* Assisted partner LGs in increasing household connections to sewerage systems, benefitting approximately 30,600 people. Work included facilitating the mobilization of about IDR 46.1 billion in funding from LG and national sources.
 - *SAN-4, Improved Urban Septage Management (IUSM):* Developed with MPVH a template for LG wastewater management regulations;
- bergantung. Pemanfaatan Kerangka Kerja Pengelolaan Limbah Domestik Perkotaan sebagai panduan, dijelaskan secara khusus pada lima (5) program sanitasi di bawah ini:
- *SAN-1, Akses terhadap Fasilitas Sanitasi yang Layak melalui Sistem Rumah Tangga:* Memfasilitasi akses terhadap system sanitasi yang layak bagi sekitar 131.105 orang melalui beberapa kegiatan termasuk: pengembangan program kredit mikro sanitasi di 25 lokasi; menyiapkan Buku Panduan "Meningkatkan Lifestyle dan Kesehatan: Sebuah Panduan untuk Promosi Sanitasi Perkotaan" serta menyusun modul pelatihan dan memfasilitasi pelatihan bagi Pemandu (TOT); menyebarkan berbagai materi komunikasi, termasuk video, poster balik, poster, stiker, dll (banyak yang tersedia di YouTube atau situs web proyek); mengembangkan dan melaksanakan program pelatihan bagi pengusaha sanitasi tingkat lokal, terutama mereka yang terlibat dalam pembangunan tangka septik rumah tangga; dan melaksanakan program TOT untuk promosi sanitasi perkotaan yang difokuskan bagi 150 staf dari Dinas Kesehatan tingkat kota dan kabupaten serta kementerian lain.
 - *SAN-2, Akses terhadap Fasilitas Sanitasi yang Layak melalui Sistem Komunal:* Memanfaatkan pendekatan yang dikembangkan di atas, meningkatkan akses dan keberlanjutan sistem sanitasi komunal yang memberikan manfaat kepada sekitar 138.930 orang. Program ini meliputi koordinasi substansial dengan instansi yang mendanai pembangunan sistem, serta banyak bantuan dalam pengembangan kapasitas bagi KSM yang akan melakukan pengawasan dan pemeliharaan sistem tersebut.
 - *SAN-3, Peningkatan Akses Sanitasi melalui Sistem Off-site:* mendukung mitra Pemda dalam meningkatkan sambungan rumah ke sistem pembuangan air limbah terpusat yang memberikan manfaat kepada sekitar 30.600 orang. Program ini termasuk memfasilitasi mobilisasi dana sebesar Rp 46,1 miliar dalam pendanaan dari Pemda dan sumber-sumber lainnya di tingkat nasional.
 - *SAN-4, Perbaikan Sistem Pengelolaan Lumpur Tinja Manajemen:* Bersama-sama dengan Kementerian Pekerjaan Umum dan

operationalized programs for regular scheduled desludging services (“LLTT”) in six (6) IUWASH locations; published a guide for the establishment of regular desludging services; coordinated GOI participation at several regional conferences and study tours on septage management; and collaborated with another USAID-funded program on the development of tools and approaches for the appraisal and design of septage treatment facilities (“IPLTs”).

- *SAN-5, Establishment and Development of Waste Water Management Operators:* Established 16 UPTD-PAL (with supporting regulations, budgets, staff, etc.) and assisted an additional 18 LGs (including operator managing wastewater management) in making progress towards the establishment of such institutions. Also, developed a seven-day training program on the establishment of LG wastewater management units in collaboration with MPWH; prepared a set of 19 standard operation procedures (SOPs) for UPTD-PAL; and published a five-volume ‘Urban Sanitation Toolkit’ that addresses: institutional development requirements in wastewater management; key areas for LG involvement; the process for developing a 5-year LG sanitation “Road Maps”; establishment of a supporting “enabling environment”; and capacity development for the operator.

Crosscutting (CC) Programs

While the division between water supply and sanitation is often quite clear, there are likewise many programs of common concern to each. These are grouped under the heading of “Crosscutting Programs” and for which highlights over the course of IUWASH implementation in the project’s five (5) Cross-Cutting (CC) areas of involvement include:

Perumahan Rakyat (PUPR) telah mengembangkan template untuk penyusunan peraturan pengelolaan air limbah perkotaan; mengoperasikan Program Layanan Lumpur Tinja Terjadual (LLTT) di enam (6) kota dampingan IUWASH; menerbitkan panduan untuk pengembangan Layanan Lumpur Tinja Terjadual; mengkoordinasikan Pemerintah Daerah yang berpartisipasi dalam program untuk mengikuti beberapa konferensi regional dan studi banding tentang pengelolaan lumpur tinja; serta berkolaborasi dengan program lain yang didanai oleh USAID untuk pengembangan perangkat dan pendekatan untuk penilaian dan desain fasilitas pengolahan lumpur tinja (IPLTs).

- *SAN-5, Pembentukan dan Pengembangan Operator Pengelola Air Limbah:* Mendukung pembentukan 16 UPTD-PAL melalui dukungan regulasi, anggaran, staf, dll dan membantu 18 Pemda lainnya (termasuk operator yang mengelola air limbah perkotaan) dalam membuat kemajuan menuju pembentukan lembaga tersebut. Juga, mengembangkan program pelatihan tujuh hari tentang pembentukan unit pengelola air limbah perkotaan yang bekerjasama dengan Kementerian PUPR; menyiapkan satu set SOP (terdiri dari 19 SOP) untuk UPTD-PAL; dan menerbitkan lima buku toolkit ‘Sanitasi Perkotaan’ yang membahas tentang kebutuhan pengembangan kelembagaan dalam pengelolaan air limbah, bidang utama keterlibatan Pemda, proses untuk mengembangkan rencana 5 tahun Pemda (Roadmap), pembentukan komponen “lingkungan yang mendukung” dan pengembangan kapasitas bagi operator.

Program Lintas Sektor/Crosscutting Programs (CC)

Walaupun pembagian antara penyediaan air dan sanitasi terlihat jelas, namun banyak program dimana keduanya saling berhubungan. Program-program ini dikelompokkan dalam “Program Lintas Sektor” atau “Crosscutting Programs” dan sorotan utama terhadap pencapaian IUWASH selama ini dilaksanakan melalui lima (5) Program Lintas Sektor (CC) berikut ini:

- *CC-1, Increased PEMDA policies:* Facilitated the development of 89 new sector policies in a total of 50 cities. Among others, such policies addressed key issues related to UPTD-PAL development, raw water protection, PDAM tariffs, and improved citizen engagement.
- *CC-2, Increased APBD budgets:* Oversaw of multiple activities to increase LG sector budget allocations with 51 LGs demonstrating increased allocations in support of a range of institutional development requirements, infrastructure development imperatives and community-based support improvements.
- *CC-3, Citizen Engagement Mechanisms:* Developed improved sector-relevant citizen engagement mechanisms (CEMs) in 21 LGs, including websites, radio programs, complaint handling units, and SMS Gateways.
- *CC-4, Gender Mainstreaming:* Implemented several gender mainstreaming initiatives and pilot projects; supported Gender Responsive Planning and Budgeting (PPRGs) in five municipalities; and established strong partnership with the Ministry of Women's Empowerment and Child Protection and the national women's association (PKK), especially in the area of sanitation programming.
- *CC-5, Mobilizing CSR Funding:* Mobilized CSR funding in support of the WASH sector through the establishment or reinvigoration of local CSR Forums in seven (7) municipalities, as well as through partnerships with the CSR programs of Coca-Cola (CCFI) and Nestle for the aforementioned infiltration ponds. Also, organized a national workshop on WASH sector CSR programming and opportunities.
- *CC-1, Perbaikan Kebijakan Pemda:* Membantu menyusun 90 kebijakan baru untuk sector air minum dan sanitasi di 51 kota dampingan. Antara lain, kebijakan tersebut membahas isu-isu penting yang berkaitan dengan pembangunan UPTD-PAL, perlindungan air baku, tarif PDAM, dan peningkatan keterlibatan warga negara dalam perbaikan sector air minum dan sanitasi.
- *CC-2, Peningkatan Anggaran APBD:* mengawasi beberapa kegiatan untuk meningkatkan alokasi anggaran untuk sector air minum dan sanitasi dari 51 Pemda yang menunjukkan peningkatan alokasi anggaran dalam mendukung berbagai kebutuhan seperti pengembangan kelembagaan, pembangunan infrastruktur dan perbaikan dukungan yang berbasis masyarakat.
- *CC-3, Citizen Engagement Mekanisme:* mengembangkan perbaikan mekanisme keterlibatan warga negara untuk mendukung perbaikan sector air minum dan sanitasi di 21 kota/kabupaten, termasuk website, program radio, penanganan unit pengaduan, dan SMS Gateways.
- *CC-4, Pengarusutamaan Gender:* Mengimplementasikan beberapa inisiatif pengarusutamaan gender dan pilot proyek; mendukung Perencanaan dan Penganggaran Responsif Gender (PPRG) di lima wilayah kota dampingan; dan membentuk kemitraan yang kuat dengan Kementerian Pemberdayaan Perempuan dan Perlindungan Anak dan Program PKK, terutama untuk mendukung program-program sanitasi.
- *CC-5, Mobilisasi Dana CSR:* Memobilisasi dana CSR untuk mendukung sector Air Minum dan Sanitasi melalui pembentukan atau penyegaran kembali dari Forum CSR lokal di tujuh (7) kota/kabupaten, serta melakukan kemitraan langsung dengan program CSR dari Coca-Cola (CCFI) dan Nestle untuk pembangunan sumur resapan. Juga, menyelenggarakan lokakarya nasional di sector Air Minum dan Sanitasi untuk mencari peluang dan program-program CSR.

Grants Program

During the course of IUWASH, the project's Grants Program supported 28 grant initiatives targeting especially communal sanitation activities, UPTD establishment, Citizen Engagement Mechanism (CEM) development, Master Meter programming, and micro-credit for sanitation. In addition to general grant oversight, IUWASH also provided much assistance to grantees as concerns program development, staff training, financial management and reporting.

Concluding Remark

While it is believed that USAID/IUWASH has made important contributions to the critical areas of water supply and sanitation development in Indonesia, any success registered is entirely due to the hard work, goodwill, and invaluable partnerships offered by the extensive list of GOI, civil society and private sector groups cited above and many more that were not included due merely to the limitation of space. The great majority of the project's work is reviewed in more detail in the body of this document and in much greater detail in a wide range of documents and other formats available in print or electronically on the program's website. Most importantly, it is also available in the capacities of the programs staff and partners who will undoubtedly continue to build and improve upon the project's achievements in the coming years.

Program Hibah

Selama periode proyek IUWASH, proyek dari Program Hibah telah mendukung 28 inisiatif hibah yang menargetkan kegiatan sanitasi terutama komunal, pembentukan UPTD, Citizen Engagement Mekanisme (CEM), Program Master Meter, dan kredit mikro untuk sanitasi. Selain pengawasan umum terhadap Program Hibah, IUWASH juga memberikan banyak bantuan kepada pelaksana Program Hibah sebagai pengembangan kapasitas lembaga lokal khususnya hal-hal yang terkait dengan program yang sedang ditangani, pelatihan staf, manajemen keuangan dan pelaporan.

Catatan Penutup

Sementara diyakini bahwa USAID / IUWASH telah membuat kontribusi penting untuk beberapa bidang penting dari sektor air minum dan sanitasi di Indonesia, setiap kesuksesan yang tercatat sepenuhnya merupakan hasil dari kerja keras, niat baik, dan kemitraan yang sangat berharga yang ditawarkan oleh sederet panjang lembaga Pemerintah Indonesia, kelompok masyarakat sipil, dan kelompok sektor swasta yang telah ditulis di atas dan banyak lagi yang tidak dimasukkan hanya karena keterbatasan ruang. Sebagian besar pekerjaan proyek telah ditinjau secara lebih rinci dalam dokumen laporan ini dan lebih detail lagi dalam berbagai dokumen yang lainnya yang tersedia di media cetak atau elektronik di website program. Yang paling penting, hal ini juga tersedia dalam kapasitas staf program dan mitra yang pasti akan terus melanjutkan pengembangan dan perbaikan hasil proyek di tahun-tahun mendatang.

LIST OF ABBREVIATIONS AND ACRONYMS

The following is a list of abbreviations and acronyms commonly used in this report and on the project as a whole.

ADB	Asian Development Bank
AIDAR	Agency for International Development Acquisition Regulations
Akatirta Wiyata	Akademi Teknik Tirta Wiyata/Tirta Wiyata Technical Academy
AMPL	Air Minum dan Penyehatan Lingkungan/Drinking Water and Environmental Health
APBD	Anggaran Pendapatan dan Belanja Daerah/Local Government Budget
APBN	Anggaran Pendapatan dan Belanja Negara/National Government Budget
AKOPSI	Aliansi Kota Peduli Sanitasi/Alliance of Cities Concerned about Sanitation
Bappeda	Badan Perencanaan dan Pembangunan Daerah/Local Development Planning Agency
Bapermas	Badan Pemberdayaan Masyarakat
Bappenas	Badan Perencanaan dan Pembangunan Nasional/National Development Planning Agency
Bawasda	Badan Pengawas Daerah/Regional Supervisory Board
BCC	Behavior Change Communications
BJB	PT Bank Pembangunan Daerah Jabar Banten/Regional Development Bank of West Java and Banten
BKM	Badan Keswadayaan Masyarakat/civil society organization
BNI	Bank Nasional Indonesia
BPKP	Badan Pengawasan Keuangan dan Pembangunan/Finance and Development Audit Board
BPRS	Bank Pembiayaan Rakyat Syariah/Sharia Rural Bank
BRI	Bank Rakyat Indonesia
BSM	Bank Syariah Mandiri
BTPN	Bank Tabungan Pensiunan Nasional/National Pensioners' Savings Bank
C1	Component One
C2	Component Two
C3	Component Three
CBO	Community-Based Organization
CC	Climate Change
CCVA	Climate Change Vulnerability Assessment
CEM	Citizen Engagement Mechanism
CJ	Central Java
CLTS	Community Led Total Sanitation
COP	Chief of Party
COR	Contracting Officer's Representative
CSO	Civil Society Organization
CSR	Corporate Social Responsibility
CSS	Citywide Sanitation Strategy
CWL	Creditworthiness Ladder
DAI	Development Alternatives Inc. (IUWASH prime contractor)
DAK	Special Allocation Fund
DD	Diarrheal Disease
DED	Detailed Engineering Design
DEWATS	Decentralized Wastewater Treatment Systems
DCOP	Deputy Chief of Party
DFAT	Department of Foreign and Trade (Australia)
DPIU	District Project Implementation Unit
DPRD	Dewan Perwakilan Rakyat Daerah/Local House of Representatives
EJ	East Java
ECO-Asia	Environmental Cooperation – Asia (USAID)
EE	Enabling Environment (for improved service delivery, Component 3)
EMMP	Environmental Mitigation and Monitoring Plan

ESP	Environmental Services Program (USAID)
FTL	Field Technical Liaison
GCM	Global Circulation Model
GEC	Grant Evaluation Committee
GIS	Geographic Information Systems
GUC	Grants under Contract
HWWS	Handwashing with Soap
HH	Household
IBL	Indonesia Business Links
IC	Improved Capacity (for service delivery, Component 2)
ICED	Indonesia Clean Energy Development Project (USAID)
IEE	Initial Environmental Examination
IndII	Indonesia Infrastructure Initiative (DFAT)
IPA	Instalasi Pengelolaan Air Minum/Water Treatment Plan
IR	Intermediate Result
ISSDP	Indonesia Sanitation Sector Development Program
ITS	Surabaya Technology Institute
IUWASH	Indonesia Urban Water, Sanitation, and Hygiene
JICA	Japan International Cooperation Agency
KSM	Kelompok Swadaya Masyarakat (Community-based Group)
KSR	Kupedes untuk Sambungan Rumah/Rural Development Credit for Household Connections
Kupedes	Kredit Umum Pedesaan/Village Credit
LG	Local Government
LPS	Liters per Second
M&E	Monitoring and Evaluation
MBR	Masyarakat Berpenghasilan Rendah/Low-income communities
MC	Microfinance Specialist
MCK++	Mandi Cuci Kakus plus plus/Bathe, Wash, Latrine “plus plus”
MD	Mobilized Demand (for improved service delivery, Component 1)
MFI	Microfinancing Institution
MLD	PT. Mitra Lingkungan Dutaconsult (IUWASH subcontractor)
MOF	Kementerian Keuangan/Ministry of Finance
MOFA	Kementerian Luar Negeri/Ministry of Foreign Affairs
MOH	Kementerian Kesehatan/Ministry of Health
MOHA	Kementerian Dalam Negeri/Ministry of Home Affairs
MPSS	Memorandum Program Sektor Sanitasi/Sanitation Sector Programme Memorandum
MPWH	Ministry of Public Work and Housing
MoU	Memorandum of Understanding
MSMHP	Metropolitan Sanitation Management and Health Project
Musrenbang	Musyawarah Perencanaan Pembangunan/Development Planning Consultation process
NGO	Nongovernmental Organization
NRW	Non-Revenue Water
O&M	Operations and Maintenance
PDAM	Perusahaan Daerah Air Minum/Local Drinking Water Company
Pefindo	Pemeringkat Efek Indonesia (Rating Firm)
PEMDA	Pemerintah Daerah/Local Government
PERPAMSI	Persatuan Perusahaan Air Minum Seluruh Indonesia/Union of Indonesian Water Supply Enterprises
Perbup	Peraturan Bupati/Regent Regulation
Perpres	Peraturan Presiden/Presidential Regulation
Perwal	Peraturan Walikota/Mayor Regulation
PII	Penjaminan Infrastruktur Indonesia/Indonesia Infrastructure Assurance
PKK	Pemberdayaan Kesejahteraan Keluarga/Family Welfare Empowerment
PKS	Perjanjian Kerja Sama/Cooperation Agreement
PMK	Peraturan Menteri Keuangan/MOF Decree

PMP	Performance Monitoring Plan
PNPM Mandiri	Program Nasional Pemberdayaan Masyarakat Mandiri/National Program for Community Self-Empowerment
Pokja	Kelompok Kerja/Working Group
Pokja PUG	Pokja Pengarusutamaan Gender/Gender Mainstreaming Working Group
Pokja-San	Kelompok Kerja Sanitasi/Sanitation Working Group
Posyandu	Pos Pelayanan Terpadu/Integrated (health) Services Post
POU	Point of Use
PPKM	Program Peningkatan Keberdayaan Masyarakat/Increased Community Empowerment Program
PPP	Public Private Partnership
PPRG	Perencanaan dan Penganggaran Responsif Gender
PPSP	Percepatan Pembangunan Sanitasi Perkotaan/Accelerated Urban Sanitation Development
PTI	Participant Training Information
PUPN	Panitia Urusan Piutang Negara/State Debt Management Commiittee
PUPR	Pekerjaan Umum dan Perumahan Rakyat /Ministry of Public Works and Housing
QPR	Quarterly Progress Report
RAD	Rencana Aksi Daerah/Local Action Plan
Rp	Indonesian Rupiah
RT	Rukun Tetangga/Neighborhood Association
RW	Rukun Warga/Community Association, equal to Ward
Sanimas	Sanitasi Berbasis Masyarakat/Community-Based Sanitation
SDG	Sanitation Donor Group
SLBM	Sanitasi Lingkungan Berbasis Masyarakat/Community-Based Environmental Sanitation
SME	Small and Medium Enterprises
SMI	Sarana Multi Infrastruktur (Infrastructure finance intermediary)
SNI	Standard Nasional Indonesia (Indonesian National Standard)
SOP	Standard Operating Procedures
SOW	Scope of Work
SS/EI	South Sulawesi and Eastern Indonesia
SSK	Strategi Sanitasi Kota/Citywide Sanitation Strategy (see CSS)
SSLT	Sludge Service System
STBM	Sanitasi Total Berbasis Masyarakat/Community-Based Total Sanitation
STTA	Short Term Technical Assistance
TA	Technical Assistance
TAMIS	Technical and Administrative Management Information System
TMG	The Manoff Group (IUWASH subcontractor)
UPTD	Unit Pelaksana Teknis Daerah/Regional Technical Unit
USAID	United States Agency for International Development
US\$	United States dollars
USDP	Urban Sanitation Development Program
USRI	Urban Sanitation and Rural Infrastructure
WASPOLA	Water Supply and Sanitation Policy Formulation and Action Planning
Watsan	Water and Sanitation
WES	Water, Environment, and Sanitation
WRM	Water Resource Management
WSP	Water and Sanitation Program (World Bank)
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant
YLKI	Yayasan Lembaga Konsumen Indonesia/Indonesian Consumer Institute Foundation

COVER STORY

Bold Initiative Provides Clean Water for 250 Households in Tanah Merah

Residents of Tanah Merah in North Jakarta have welcomed clean water supply with joy as now they are able to bid farewell to expensive water in jerricans and save more money. A 'Master Meter' system installed by IUWASH has connected 250 households which could previously not be connected with piped water service from PT. Aetra Air Jakarta one of the two private water operators in Jakarta.

Previously, for the residents of Community Unit (RW) 22 in Tanah Merah, obtaining clean water for everyday use meant paying a lot of money for a limited amount of water sold by local vendors in jerrican.

Yeni Saragih, 62, recently said goodbye to her regular water vendor. "I have bought water from him for 17 years. I said to him that I would not buy water from him anymore as I have piped water now," she said during the launch of the Master Meter system on February 2, 2016. Yeni also feels the piped water not only cheaper but also cleaner. "When I took a bath with ground water from my well, I did not feel clean. However, although we use a smaller amount of this piped water, we feel clean. I used to buy four 20-liter jerricans of water at IDR 10,000 (73 US cents) per day and even spend IDR 25,000 per day during the dry season. Now that I have piped water, I am happy to pay IDR 14,000 per cubic meter (m³) which is lot cheaper than jerrican water," she added.

Syri Anhar, a 38-year-old security guard, was also happy with the service that he had already enjoyed for four months. "Since having the piped water, I love to help my wife in washing and cleaning the house. I could not do it before as we should be thrifty with water. Especially during dry season, we have to be satisfied for bathing with only one bucket of water," he said. Besides being cheaper, Syri conveyed that he is also expecting that this service will provide them with reliable water supply even during the dry season, when they usually experience hardship.

The piped water connection to 250 households in Tanah Merah is the fourth project of IUWASH, cooperating with city-owned water operator, PD PAM Jaya and 2 private operators PT. Aetra and Pt Palyja. The other three areas are Cilincing and Pulogebang in East Jakarta; and Rawa Buaya in West Jakarta. In the Master Meter project, a Master Meter is installed in a legal public spot near the houses with informal land titles, as the water operator is only allowed to provide connection in areas with legal land titles. The connection from the main pipe to the Master Meter is funded by PAM Jaya and private operators, while cost of the piping and houseconnections after the Master Meter (between Rp 4 - Rp 5 million per household) is covered by IUWASH with community contribution.

The low-income households, with help from IUWASH, installed the pipe network from the Master Meter to their houses. After several discussion between all parties, households agreed to pay IDR 14,000 per cubic meter (m³) to the KSM (Community Management group elected by all users) covering both the tariff of IDR 7,500 /m³ for PT. Aetra as well as cost for technical maintenance of the network. This is higher than regular PT. Aetra customers, which usually pay only the IDR 7,500 per m³. However, all connected



DES SYAFRIZAL

Residents of RW 22 Tanah Merah in North Jakarta enjoy decent supply of clean water through 'Master Meter' system.

households are happy anyway because they compare it to their previous expenses from water vendors, which was often at least IDR 300,000 per month. The Master Meter system also has alleviated PT Aetra and PAM Jaya's concerns of water theft through illegal connections while still providing clean water to urban poor.

Besides the usual challenges of providing water to poor neighborhoods (cost, space, tariff, community ownership), there other major challenge was the negotiation with local water vendors, who realized this would harm their business of selling water. But after tough negotiation, facilitated by IUWASH the water vendors finally relented and agreed this is in the benefit of the whole community.



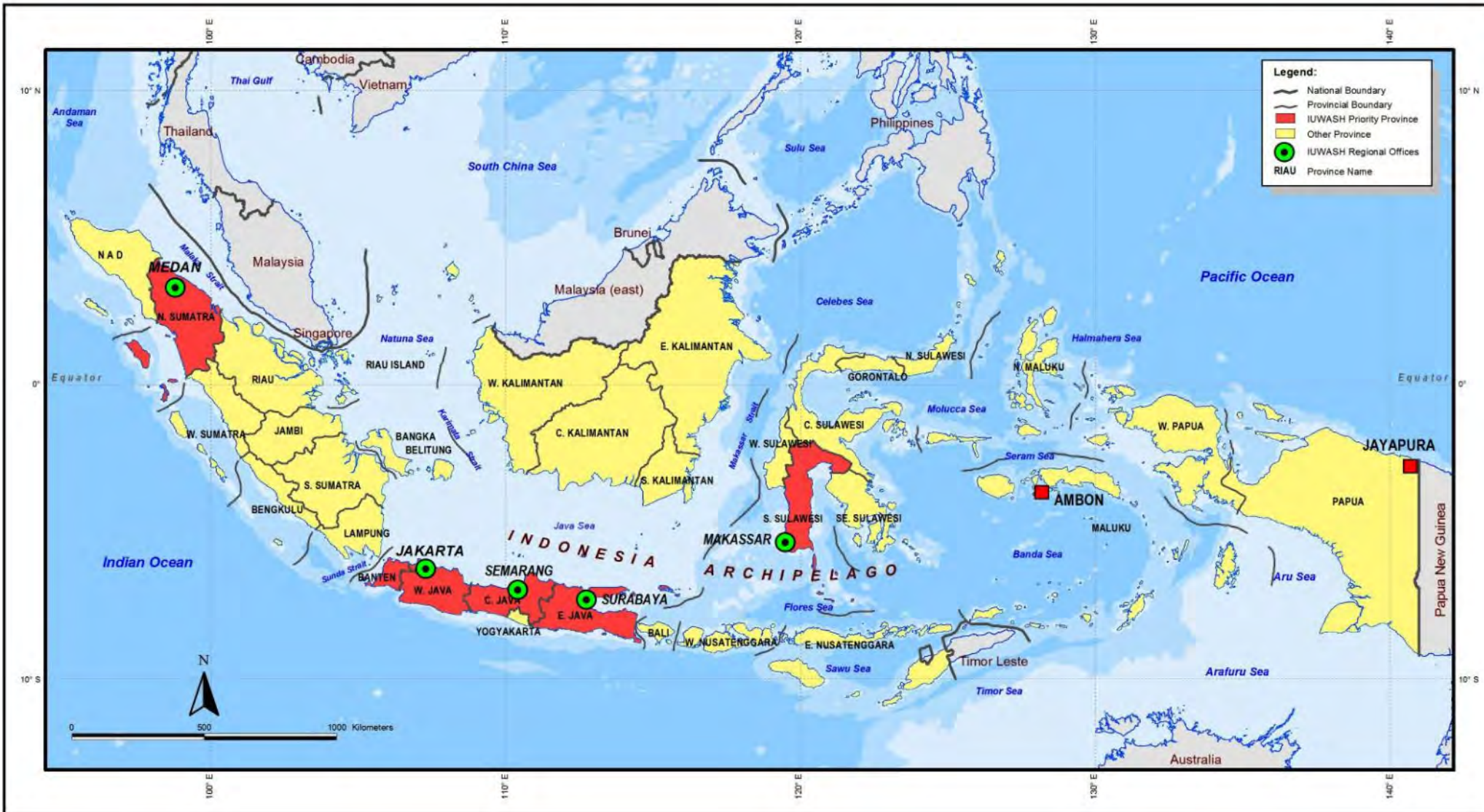
IUWASH COR, Trigeany Linggoatmodjo (ENV Office of USAID Indonesia) is receiving the “Metropolitan Leadership Award” from Tempo magazine in the category of ‘public services’.



The “Metropolitan Leadership Award” from Tempo magazine in the category of public services dedicated to IUWASH for its success of implementation of Master Meter Program in DKI Jakarta.

For its work in improving access to water supply services for the poor in Jakarta through Master Meter system development, USAID/IUWASH received a “Metropolitan Leadership Award” from Tempo magazine in the category of ‘public services’ on June 22, 2016. The award program is an annual event that recognizes outstanding efforts to improve the city’s livability, and this year there were 141 entrants in 10 categories. Besides the system established in Tanah Merah neighborhood, there are other 7 neighborhoods in DKI Jakarta also have new water connection through Master Meter system. This development is supported by IUWASH and collaborates with PAM Jaya, Aetra and Palyja. IUWASH support to Master Meter system is implemented in informal settlements by establishing one main connection from the water utility and then a distribution network to generally 50-100 households in the informal settlement area. A Community-Based Organization (CBO) is also established among residents of the settlement to manage the distribution network and pay the community’s monthly water bill. Not only have such systems proven to dramatically reduce the cost of water for these generally very poor households, they also greatly assist water utilities in controlling Non-Revenue Water losses.

Program Site Location Map



Section I

INTRODUCTION

This is the Final Report issued under the USAID Indonesia Urban Water, Sanitation and Hygiene (IUWASH) project which was implemented within the framework of USAID Contract No. AID-497-C-11-00001, covering the period of implementation from March 03, 2011 through project completion on July 03, 2016. This report also serves as the final two (2) Quarterly Progress Reports (QPRs) under the project, covering the period from January 01 through March 31, 2016 and April 01 through project completion. As such, this report includes detailed information on accomplishments and issues encountered cumulatively over the life of the project, as well as highlights of its final six months. These are set forth according to the project's main areas of activity, namely: water supply, sanitation, those that are "cross-cutting" or common to both, as well as on key program management considerations. Its development was very much a team effort, and it is meant to be widely shared and disseminated.

IUWASH IN BRIEF

The IUWASH Project has been a five-year four-month, \$40.7 million initiative designed to support the Government of Indonesia (GOI) in the achievement of its safe water and sanitation Millennium Development Goal (MDG) targets, as well as its target of Universal Access to water and sanitation services which was established in the latter years of the Project.

The IUWASH Project has worked with Indonesian government agencies (central, provincial, and local), local government-owned water utilities (PDAMs), sector associations, NGOs, communities, universities, and the private sector. Through support of GOI agencies and associated initiatives, IUWASH set forth to achieve the following "high level" results:

- An increase of 2,400,000 million people in urban areas with access to improved water supply;
- An increase of 250,000 people in urban areas with access to improved sanitation facilities;
- A decrease of 20% in the per-unit water cost paid by the poor in targeted communities; and
- 100,000 people trained in WASH related areas.

To contribute to more equitable access, IUWASH emphasized expanding access among Indonesia's urban poor, who have been those with the most limited access to these services. To ensure that improvements in access would be sustained, IUWASH implemented activities that contributed to the achievement of three distinct types of intermediate results, namely:

- Increased demand for safe drinking water access and improved sanitation among urban communities and households;
- Improved water and sanitation services provided by public and private sector institutions in urban areas to meet the increased demand; and
- Improved governance and sector finance to create the enabling environment necessary to support the above.

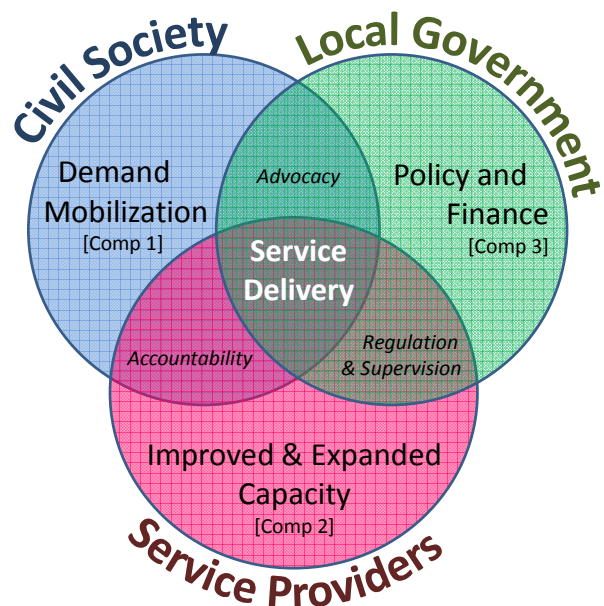


Figure 1: IUWASH Conceptual Framework.

Corresponding to these intermediate results were three technical components that together contribute to increased access to water and sanitation services (see IUWASH Conceptual Framework). Component 1 focused on the mobilization of demand; Component 2 aimed to increase capacity for service delivery; and Component 3 seeks to improve the enabling environment. These components are mutually reinforcing, and the outcomes targeted in each are inextricably linked, such that success under one component cannot be achieved without commensurate success in the other two. These components are further supported by a small grants program to promote innovation and scaling-up of successful approaches to increasing access. While operating within this overall framework, project planning, coordination and monitoring and evaluation also takes place on a “sector basis” wherein tasks are organized as related to the water supply sector, sanitation sector or cross cutting areas that are common to each.

While IUWASH was designed around the three above components, project workplanning and reporting was altered in the project’s initial years to be based on the project’s two main sectors of intervention (water supply and sanitation) and “crosscutting areas” that are common to each. The below Table sets forth the areas of IUWASH involvement.

Table I

Water Sector	Sanitation Sector	Cross-Cutting
WS-1 PDAM Operations	SAN-1. Individual Sanitation Systems	CC-1: Local Gov’t policy dev’t
WS-2 PDAM Finance	SAN-2. Communal Sanitation Systems	CC-2: Local Gov’t budget allocations
WS-3 PDAM Customer Relation	SAN-3: Off-site sanitation (sewerage)	CC-3: Citizen engagement mechanisms
WS-4 Raw Water / Climate Change	SAN-4: Urban Sludge Management	CC-4: Gender mainstreaming
WS-5 Microfinance	SAN-5: Support Pokja Sanitasi/AMPL	CC-5: Mobilizing CSR funding
WS-6 Master Meters		
WS-7 PDAM Capital Investment		
WS-8 PDAM Governance		

Operationally, IUWASH had a central office in Jakarta, regional offices in Medan, Semarang, Surabaya and Makassar, as well as satellite and liaison offices among the majority of its partner municipalities. Through this structure, IUWASH has assisted 54 municipalities in increasing access to safe water and improved sanitation facilities.

VISION INTO ACTION

At the very onset, IUWASH set forth a vision of what it intended to accomplish over the duration of the Project. This vision was focused on the development of urban water supply and sanitation solutions that would be incorporated into national and local development strategies, enabling local governments and their service providers to deliver high-quality, efficient water and sanitation services. IUWASH further envisioned that such solutions would lead to sustainable increases in coverage well beyond the project’s end date, especially for the urban poor. The IUWASH team’s strategic approach for achieving this vision was to:

- Serve as a catalyst for linking local level needs with national-level resources that are often difficult for local stakeholders to access;
- Improve the capacity of Indonesian water utilities to reach development targets while accounting for threats to their water resources, including those due to or exacerbated by climate change;
- Improve the prospects for sustainable progress in sanitation through institutional capacity development and unleashing the untapped willingness of households to invest in sanitation improvements;

- Implement all activities through a lens of good governance—whether democratic governance (local government and civil society engagement) or corporate governance (such as PDAM operations and service delivery).

The above vision guided IUWASH implementation throughout its span and was further embodied in Annual Workplan development. This was represented by specific themes attached to each annual workplanning exercise and which are summarized for each Project Year (or “PY”) as follows:

- PY 1/2, “Building the Foundation”: The project focused attention on putting into place the essential infrastructure, relationships and programmatic framework to achieve the five-year vision set forth above.
- PY 3, “Seizing the Opportunity”: IUWASH took advantage of the platform established earlier to support stakeholders across all areas of involvement and identify areas of particular opportunity.
- PY4, “Maximizing Resources for Greatest Impact”: The project extended and deepened its support across several areas, most notably as concerns sanitation and with additional financial support from USAID.
- PY 5, “Optimizing Performance and Informing Policy”: IUWASH began a concerted effort to inform national policy and programs based on its experiences at the local level.
- PY6, “Achieving Targets and Leaving Behind Sustainable Results”: This theme underscored the dual role the project had in its final year of meeting its performance obligations to USAID and ensuring that its many partners were well-equipped to continue progressing in the many areas addressed under IUWASH.

SUMMARY OF ACHIEVEMENTS

Over the course of the past five years IUWASH was able to make significant progress in multiple areas and in most of cases meet targeted outcomes and higher-level results as defined in the IUWASH Performance Monitoring Plan (PMP). These achievements included:

- **2,505,560 people** obtained increased access to safe water supply which is an increase of and **0.56%** in the number of households with access to safe water supply in areas where IUWASH PDAM partners operated;
- **300,635 people** obtained increased access to improved sanitation services which is an increase of **2.62%** in the number of households with access to improved sanitation services in areas where IUWASH supported the construction of improved sanitation facilities;
- A **decrease of 57%** in water costs for poor people;
- **105,537 people** trained under IUWASH capacity-building activities, with women accounting for **33.08%** of all training participants. The total budget spent in support of this training was US \$2,929,363;
- **60,127 households** prepared to pay for sanitation improvements;
- **261 government cadres** implement WatSan programs; **118 people/master trainers** participated in Training of Trainer (TOT) on Urban Sanitation Promotion;
- The PDAM Performance Index for 48 PDAMs **rose by an average of 73.47%**;
- **24 PDAMs** submitted debt restructuring plans to the Ministry of Finance (MoF) and monitored the implementation of debt restructuring plans;
- **56 Small Medium Enterprises (SME)** were assisted in expanding their services to sanitation system development;
- **210 people of IUWASH partners** increased capacity in climate change adaptation topics; **50 Local Governments** increased local budget (APBD) allocations and improved their policy to support improvements in the WatSan sector;
- **US\$38,271,177.28** was leveraged in support of WatSan service expansion;
- **23,340 households** obtained new water connections (16,971 households) and improved sanitation facility (6,369 households) through microcredit initiatives;

- **21** Local Government partners developed Citizen Engagement Mechanism to support WatSan improvements.

More details on progress towards achieving IUWASH outcomes can be found in PMP Annex.

ORGANIZATION OF THIS REPORT

All of the above and much more are examined in greater detail in the following sections of the QPR and which include:

Section 2, High-Level Results and Component-Level Progress: This section summarizes key achievements to date, as well as progress, issues and plans for the next quarter that are related to the project's work: in the water supply sector; in the sanitation sector; and among cross-cutting areas of activity.

Section 3, Regional Section: This section describes principle activities undertaken in the region, some of the special challenges facing each region, and the project's achievements in water supply, sanitation and cross-cutting areas.

Section 4, National Program Activities: This section details progress, issues and plans for the next quarter that are related to: general project management; project communications; monitoring and evaluation; and environmental compliance.

Section 5, Project Monitoring and Evaluation: This section explores in greater detail the project's progress and achievements registered to date and during the reporting period with regard to each targeted result and outcome.

Section 2

HIGH LEVEL RESULTS & COMPONENT LEVEL PROGRESS

INTRODUCTION

In this section we present a detailed account of the project's overall progress towards achieving IUWASHs' High Level Results as well as detailed information on the progress, issues met, and plans within each outcome area of the three project components and the grants program which complements work in all other areas. As indicated in Section 1, IUWASH recognizes that all three components and the grant program support and reinforce each other. Thus, the outcomes are inextricably linked to an extent that success under one component cannot be achieved if there are no corresponding successes in the other two. Accordingly, we are also highlighting important linkages between the work under the components and specific areas of collaboration. This section is divided into the following sub-Sections:

Section 2.1. High Level Results

Section 2.2. Water Supply Sector

Section 2.3. Sanitation Sector

Section 2.4. Cross-cutting Sector

Section 2.5 Grants Program

Section 2.1

HIGH LEVEL RESULTS

Within the framework of IUWASH, High Level Results are at the heart of its programming especially the first two results listed below. These results directly and significantly contribute to the achievement of the project's broader goal of assisting the GOI in accomplishing its MDG targets in water supply and sanitation. At the end of 2015, after achieving of the MDGs target, the GOI launched a new strategy to support the improvement of the water and sanitation sector. The new strategy—referred to as “Universal Access”—aims to provide complete coverage of water supply and sanitation by 2019. More specifically, the strategy seeks to achieve “100-0-100” status by 2019, meaning that 100% of Indonesians have access to safe water, there are no (0%) slums remaining in urban areas, and 100% of the country also has access to an improved sanitation facility. The commencement of the Universal Access movement led IUWASH to also make strategic shifts in its technical approach. For each High Level result, the table below presents Life-of-Project (LOP) targets, achievements for each year of program operation, and the total achieved by the end of the project.

Table 2: Summary of Achievement of High Level Results

High Level Results	Indicator	LOP Target	Achievements made in PY6						Total
			PY1	PY2	PY3	PY4	PY5	PY6	
HR-1: People gain access to improved safe water supply	Number of people in urban areas gain access to improved water supply	2,400,000 (*)	0	251,630	595,885	622,665	775,825	259,555	2,505,560 (104.40%)
HR-2: People gain access to improved sanitation facilities	Number of people in urban areas gain access to improved sanitation facilities	250,000	0	13,615	42,610	40,425	159,405	44,580	300,635 (120.25%)
HR-3: Per unit water cost paid by poor in targeted communities decreases by at least 20%.	Percent of per unit water cost paid by the poor in targeted communities decreases by at least 20%. (**)	20%	57% (***)						57% (285%)
HR-4: Participants trained	Number of people participated in IUWASH training type of activities	100,000 (*)	417	14,834	22,078	15,177	37,060	7,746	105,537 (105.54%)

(*) New Target

(**) Based on the project's new PMP (Third Revision), this outcome is only measured at IUWASH Master Meter locations. As such, previous measurements are no longer valid and will be adjusted following completion of a new water cost survey.

(***) This figure is the result of the new water cost survey that was implemented in Kab. Tangerang, Kota Sibolga, Kota Surakarta, Kab. Sidoarjo, Kota Surabaya and DKI Jakarta.

The figure above shows that IUWASH surpassed the Life-of-Project (LOP) targets for all High Level Results. Notably, all information concerning participant training is regularly uploaded to the USAID training information system, TraiNet.

Two additional notes are worthy of mention concerning the achievement of HR-1 (People gain access to safe water supply). First, IUWASH excluded the number of new connections registered by the PDAMs of Kabupaten Labuhanbatu and Kota Malang as a review of their final performance index valued showed less

than 20% improvement. As stated in the PMP, new water connections will only be counted if the PDAM's performance index increased at least 20%. The reasons for having lower performance index in these LGs are as follows:

- PDAM Labuhanbatu: Eventhough the Performance Index (PI) of PDAM Labuhan Batu increased with on average 23% during the first 3 years of IUWASH support, it dropped to 19.48% in 2015, because PDAM started operating 3 new treatment plants, resulting in 20% increase of their operation cost; This reduced the Full Cost Recovery from 1.15 to 0.87, resulting in a 4% reduction in the PI score. In the coming year this will be corrected by increased revenues from the new connections.
- PDAM Kota Malang: When IUWASH began providing technical assistance to this LG, PDAM Kota Malang already had a high score on the performance index (68%, the highest baseline of all participating PDAMs). The final PI score for PDAM Kota Malang was 81.10%, an increase of 19.1%. While this fell short of the target, the inclusion of Malang was nonetheless very beneficial to IUWASH, as the PDAM was able to serve as as center of excellence for many other PDAM partners. The PDAM itself also appreciated this role in areas such as GIS, providing their expert staff free of charge for classroom and field training, exchange visits and internship to other PDAM partners.

Second, IUWASH anticipates that the cumulative impact in terms of access to clean water will only continue to increase beyond the period of performance of the project as capital investments supported by IUWASH begin to come online. While it can be difficult to pinpoint exact amounts given that many projects remain in the financing, tender, and/or construction phase, it is nonetheless likely that the new facilities—from the Cibaja greenfield project in Kabupaten Serang to the Sirantau treatment plant in Tanjung Balai—will collectively improve access to an additional 90,000 households in the coming years.

Section 2.2

WATER SUPPLY SECTOR

One of the primary objectives of IUWASH has been to increase access to improved water supply for 2.4 million people (equivalent to 480,000 households) living in urban areas. To achieve this, IUWASH provided direct support to 50 local water utilities (PDAMs), strengthening their internal operations (technical, financial, customer service) as well as the external environment in which they operate, including: (i) obtaining support from local decision-makers; (ii) highlighting the protection of raw water sources combined with climate change adaptation planning; and (iii) supporting the mobilization of capital financing for service expansion. As a result of these combined efforts, services for all PDAM customers improved and increased, including for low-income households, which have benefitted mostly from strong and financially healthy PDAMs. Details of this support up to the end of June 2016 can be found in this section of the final report, as well as in Water Supply Matrix in Annex 1.

IUWASH programs in Water Supply Sector

WS-1	Improve PDAM Operation
WS-2	Improve PDAM Finance
WS-3	Improve PDAM Customer Relation
WS-4	Raw Water & Climate Change Adaptation
WS-5	Water for the Poor – Microfinance
WS-6	Water for the Poor – Master Meters
WS-7	PDAM Capital Investment Financing
WS-8	PDAM Institution & Good Governance

IUWASH interventions for the Water Sector were grouped under eight programs which are listed in the accompanying box. While the achievements of the eight programs are described separately in this section, they were closely interconnected and all had a crucial role in improving PDAM performance.

Main Achievements Water Supply Sector

This section summarizes the main achievements in water supply during the IUWASH program, arranged by signature programs and other main achievements.

Signature Programs: These were innovative approaches which were used as examples by the GOI and/or donor agencies and implemented through either direct assistance from IUWASH experts or subcontracted third parties. The main achievements of the water supply signature programs were as follows:

- *PDAM Energy Efficiency and Non-Revenue Reduction:*
 - Energy Efficiency Audits and monitoring results with 14 PDAMs in all IUWASH regions.
 - NRW Reduction implemented in 23 PDAMs and NRW training conducted for 37 PDAMs.
 - Booklet published and disseminated on “Best Practices and Lessons Learned in Efficiency Energy” among 10 PDAMs.
 - Sample Performance-Based Contract prepared and approved by MPWH.
 - Compilation report of Energy Efficiency Audits at 8 PDAMs prepared and disseminated.
- *Water for the Poor:*
 - Completed 25 Master Meter systems in DKI Jakarta, Sidoarjo, Tangerang, Sibolga, Surakarta



IUWASH

Staff of PDAM Tanjungbalai conduct audit to several PDAM pumps to review the energy used on PDAM operation.

and Surabaya which are directly benefitting around 10,150 poor people who now have access to clean piped water at an affordable price.

- Director of PAM Jaya presented the IUWASH Master Meter program in DKI during KSAN in November 2015, and subsequent meetings with the Deputy Governor of DKI showed the strong potential for future expansion.
- Micro finance for increased water supply access was undertaken in 21 PDAM in all IUWASH regions, and through June 2016, 16,971 households were connected to piped water supply through microcredit facilitated by IUWASH with funding from local banks and PDAM cash flows.
- *Climate Change Adaptation Plans:*
 - Baseline Climate Change Vulnerability Assessments (CCVAs) completed for 22 locations; Climate Change Adaptation Plans (VAAP) for 21 locations completed.
 - 3,770 Infiltration Ponds (Sumur Resapan) were constructed (307 by IUWASH and 3,434 in partnership with CCFI and Nestle).
 - Climate Change Adaptation Toolkit developed and launched during the IWWEF conference on 4th May 2016 in Jakarta.
 - CCA Toolkit was used as the basis for development of a set of Climate Change Adaptation training modules which were used in 9 Climate Change Adaptation Impact trainings (1 in North Sumatra; 2 in West Java/Banten; 2 in Central Java; 2 in East Java; and 2 in South Sulawesi) for 210 participants from PEMDA, PDAM's, NGO's, CSR forums, and national institutions (including Bappenas)
 - IUWASH supported development and adoption of 5 local regulations on raw water protection.
- *Capital Investment Financing:*
 - Technical support to finance 18 capital infrastructure projects with 12 PDAMs was conducted, which resulted by end of IUWASH in 10 completed projects, and 8 still in process of completion (approvals, finance allocation, etc.). Details on locations, type of project, capacity, etc can be found under section WS-7.
 - Good progress in the regional water supply development program in North Sumatra referred to as MEBIDANG where the initial FS and DED were completed with IUWASH assistance, accepted by all local, national and international (KfW) parties, and used for detailed discussion and budgeting exercises. The estimated budget is more than US\$ 50 million for building an intake, treatment plant and piping network with a capacity of 2,100 l/second and which will be constructed in two phases.



DES SYAFRIZAL

CBO member is recording the water use through meter installed at one of household using Master Meter system in Tanah Merah, Jakarta.



YUSUF AHMAD

CBO member is recording the water use through meter installed at one of household using Master Meter system in Tanah Merah, Jakarta.

Collaboration with other parties

IUWASH's ambitious targets could only be achieved through strong partnerships with key national government ministries, other donor agencies, and other institutions, both public and private. This collaboration took many forms, including regular exchanges to share lessons learned and avoid duplication of effort, and the development and implementation of joint programs. Table 3 summarizes the main collaborative efforts during IUWASH.

Table 3: IUWASH Partners Supported Collaborative Effort for Water Supply Sector

Partner	Summary of activities this year (October – December 2015)
USAID Indonesian Clean Energy Development (ICED)	Joint preparation of PDAM Energy guidelines and workshop on PDAM Energy Efficiency Audits; introduction EEA to PDAM Bekasi
Ministry of Public Works and Housing /Water Supply	Regular discussions on <ul style="list-style-type: none"> • PDAM Energy Efficiency Audits (Guidelines, OBA grant and Performance Based contracts), • NRW reduction (Jakarta), and • strengthen PDAM (e-PDAM & PDAM –INFO); Regular meetings to discuss technical requirements to obtain capital financing for MEBIDANG (Medan Binja, Deli Serdang)
BPPSPAM	Regular exchange on PDAM long-term financing and arranged support to join training for unhealthy PDAMs in Maluku and Papua
Ministry of Finance	Supporting development and monitoring PDAM debt restructuring and opportunities to provide Capital Expenditure Finance to PDAMs
PERPAMSI – Association of Water Utilities (PDAM)	<ul style="list-style-type: none"> • Co-organized training for unhealthy PDAMs in Maluku + Papua • Jointly implementation of assessment of 170 PDAM supporting program by GOI to increase water access with 10 million connections
YPTD (PERPAMSI Training Foundation)	Supported 42 Managers from 23 PDAMs to join certified management trainings, including adding sessions on Climate Change Adaptation and customer forum development
World Bank / ADB	Regular discussions on Water Sector, policies, long term financing, IKK,
IndII/DFAT	Informal communication, exchange experience between both programs
KFW (German Development Bank)	Regular discussion and supporting technical data (FS, DED, financial analysis) regarding MEBIDANG raw water project in North Sumatra
Coca-Cola Foundation Indonesia (CCFI)	Close collaboration to develop infiltration ponds (<i>Sumur Resapan</i>) in North Sumatra, East and Central Java including limited TA in Magelang
Nestle Indonesia	Support development of infiltration ponds in Probolinggo, East Java
Bank Syariah Mandiri	Joint expansion of Micro finance program for WATSAN, including joint capacity building for cooperatives, micro finance institutes, etc
Water.org	Collaboration on promoting micro finance for watsan, including preparation for National microfinance workshop (February 2016)
Perhutani/ PTPN	Collaboration on development of infiltration ponds in Perhutani locations in Mojokerto and PTPN locations in Pematang Siantar

PDAM Performance Index

The PDAM Performance Index (PPI) was developed by IUWASH for the following 3 reasons:

- (a) to monitor impact of the IUWASH Project on PDAM performance;
- (b) to better identify priority programs / activities that should be supported by IUWASH to improve PDAM performance; and
- (c) as an internal tool for PDAMs to review trends in their performance and additional efforts that would need to be applied to improve the performance, including those that could serve as Key Performance Indicators (KPIs) for individual parts of their organizational structure.

Following the 3 points above, the PPI was developed based on the key processes and components which underpin PDAM performance, with an eye towards the portfolio of activities which could be supported by IUWASH.

The components of PPI were divided in 6 categories (see figure on left) and weighted as follows (with total of 100%):

- Financial 20 %
- Technical 20 %
- Raw water 15 %
- Customer relation 15 %
- Good Governance 15 %
- Management/HRD 15 %

A baseline of the PPI was established at the start of IUWASH and then updated every 6 months thereafter. The trend of PDAM performance was then calculated by comparing the score of the current year with the baseline score.

The methodology to collect PPI data during IUWASH program can be described as follows:

- In PY 1, IUWASH team visited each PDAM to explain the PPI (purpose, topics, forms used, collection method, etc.). During this time, the PPI baseline data was directly collected and filled in the PPI data form. It was also explained that the PPI is not replacing existing PDAM performance indices (such as those from BPPSPAM or the Ministry of Home Affairs) because of the different purpose and data requirement. The IUWASH PPI focuses on internal PDAM monitoring.
- In PY 2, data was filled in by PDAM, and IUWASH regional teams visited each PDAM to verify the data. IUWASH also conducted PPI training to PDAM staff at the beginning of the second year.
- In PY 3-4, the PPI form was sent to PDAM and filled in by PDAM staffs. Following completion of the forms, IUWASH conducted workshops in each IUWASH region and invited PDAMs to join (for 1-2 days) to verify and discuss their data and results.
- In PY 5, the PPI form was again sent to and completed by the PDAMs, with verification conducted for each PDAM directly by IUWASH staff at the PDAM in order to certify the accuracy of the data. This was conducted in each region for approximately 3 PDAMs per day.

PDAM Performance Index

1. Good governance
 - a. Transparency
 - b. Accountability
 - c. Tariff setting and investment
 - d. Pro-poor policies
2. Technical and operational performance
 - a. Number of connections
 - b. NRW Reduction
 - c. Energy Efficiency
 - d. GIS/MIS systems
 - e. Water quality improvements
3. Financial performance
 - a. Full Cost Recovery
 - b. Financial Ratio
 - c. Employee Ratio
 - d. Billing and accounting systems
4. Customer relations
 - a. Customer satisfaction survey
 - b. Community reporting to PDAM
 - c. SOP for customer complaints
 - d. Information through public media
5. Business/human resource management
 - a. Human resources policies
 - b. PDAM staff training programs
 - c. PDAM business plans
 - d. SOP
6. Safeguarding raw water sources
 - a. Existing condition and future demand
 - b. Protection of raw water systems
 - c. Climate change adaptation programs

Although the cost of meeting directly with each PDAM is higher compared to just sending the form, IUWASH still recommends this method to help ensure the accuracy of the data. The purpose of the PPI training was to (a) improve understanding of what the PPI is and how it can be used for internal monitoring of performance and/or how PDAM management can use some or all of the PPI as KPI; (b) review in detail the PPI components and scoring system used; (c) demonstrate how to fill in the PPI form; and (d) show how to interpret the results.

During IUWASH, the average PPI score of the 50 PDAM gradually increased. After the baseline was determined at 15.3%, the PPI increased in subsequent years to 30.5%, 50.9%, 69.6% and, at end of IUWASH, reached 73.4%. This trend of increasing of PDAM performance can be seen in the accompanying text box.

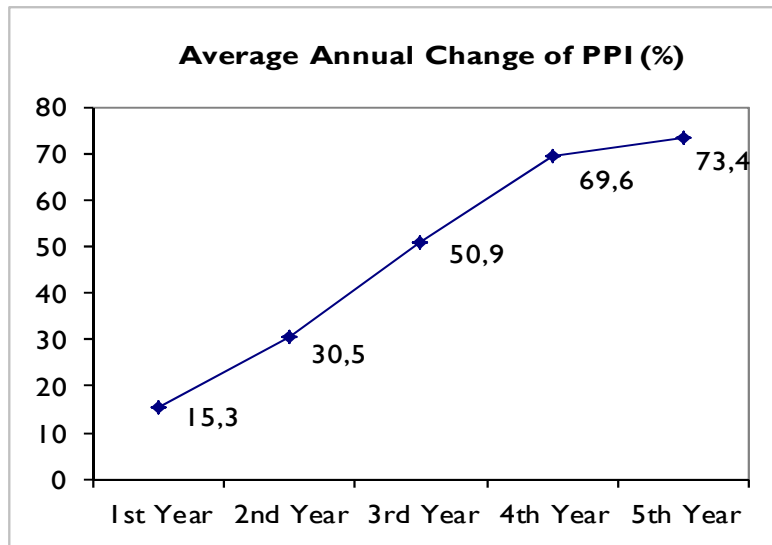


Figure 2: Average Annual Change of PPI.

However, for 2 PDAMs (Labuhan Batu – North Sumatra and Kota Malang – East Java) the final PPI score did not increase by 20% as required for Outcome WS-1. This means that the total Outcome for WS-1 (PDAMS with PDAM PI > 20%) is 48 PDAMS (or 96%) of the target of 50 PDAMS. Even though the PPI of PDAM Labuhan Batu increased by an average of 23% during the first 3 years of IUWASH support, it dropped to 19.48% in 2015 because the PDAM started operating 3 new treatment plants, resulting in 20% increase of their operation cost; this reduced the Full Cost Recovery from 1.15 to 0.87, resulting in a 4% reduction in the PPI score. In the coming year this will be corrected by increased revenues from the new connections. Regarding Kota Malang, they already started with a high baseline PPI (68%, the highest baseline of all participating PDAMs). The final PPI score for PDAM Kota Malang was 81.10%, an increase of 19.1%. The reason IUWASH still included PDAM Kota Malang was less on further improving their own performance (even though it increased by almost 20%), but more on using them as an example for other PDAMs given their level of excellence in operations. Also, PDAM Kota Malang supported IUWASH for various activities, especially on GIS (see details under Section WS-1) providing their expert staff free of charge for class room and field training, exchange visits and internships. It should be noted that, while IUWASH supported 50 PDAMS, 2 of them covers 2 municipalities / districts each (PDAM Jayapura covering Kota and Kabupaten Jayapura and PDAM Kabupaten Tangerang also covering Kota Tangerang Selatan). Thus, in total, IUWASH supported 52 Kota and Kabupaten across the priority provinces. Also, besides the 50 PDAMs counted under WS-1, technical support was provided to PDAM Kota Makassar and Pam Jaya DKI, but because this support

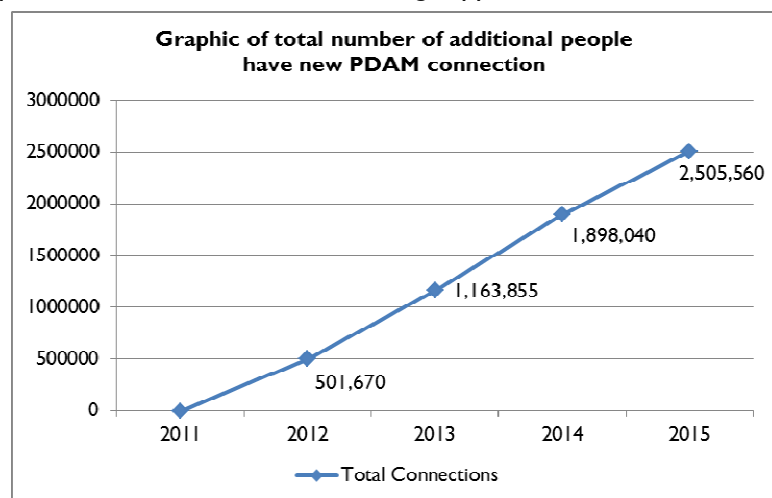


Figure 3: Graphic of total number of additional people have new PDAM connection.

did not cover the whole spectrum of technical assistance, it was not counted.

IUWASH also collected quantitative information (every six months) on changes in the number of PDAM connections (Higher Level Result 1). The baseline data from June 2011 and December 2012 showed a total baseline of 2,448,248 PDAM connections providing access to 12,773,590 people. The total increase of connections since the start of IUWASH until latest measurement in December 2015 showed an increase of 501,670 people (500,745 in actual PDAM connections and 925 in connections to Master Meter systems, which are not counted as individual PDAM connections). This is the equivalent of 2,505,560 additional people with access to safe water. The graph above shows the trend on an annual basis. More detail on quantitative and PPI data can be found in PMP Annex.

Program WS-I: Improved PDAM Technical Aspects

The focus of WS-I was to improve PDAM technical performance and expand improved water supply to (not yet connected) households. By implementing this program:

1. Water availability for existing and new customers increased (through reduced NRW and the optimization of production capacity);
2. PDAM financial performance improved (through Energy Efficiency and MIS); and,
3. Technical performance, including water flow and pressure, improved through distribution network improvement, the application of GIS, etc.

The following is summary of program activities during IUWASH under WS-I.

Energy Efficiency Program

High energy costs can account for as much as 30% of PDAM operating cost, especially for those that rely on pumping systems for water transmission and distribution. This decreases water utility financial performance and places undue strain on the utility's budget, reducing its flexibility to respond to other requirements, let alone ability to improve or expand services to customers. However, most PDAM managers are not aware that their energy consumption is inefficient, nor of the steps required to improve energy efficiency in their pumping systems. During IUWASH, several program activities were undertaken to support PDAMs in this important matter. Table 4 below summarizes main achievements in energy efficiency programming.

Energy Efficiency Audit (EEA).

IUWASH conducted EEAs at 14 PDAMs and audited 141 pumping units, consisting of 37 intake pumps and 104 distribution pumps. From EEA results, it was recommended to replace 27 pumps; replace or recondition 19 pump impellers; improve electro-mechanical systems at 6 locations; and improve piping systems at 8 other locations. The total cost of these improvements was estimated at Rp. 8.037 billion with payback periods estimated at less than one year for 34,5% of identified investments, between 1-2 years for 48,3% of identified investments, and more than two years for the remaining 17,2%. To explain the results and obtain commitment from the PDAM to make the required investments, consultations with PDAM management (and supervisory boards) were conducted directly after each EEA was completed. Final EEA reports were also provided to PDAM management in Bahasa Indonesia.

Energy Efficiency Training

During each EEA, IUWASH also conducted EE training (both classroom and field-based), so that PDAM staff would understand the importance of energy efficiency, how to conduct an EEA, and how to identify actions that would lead to improved energy efficiency. After this training, PDAM staff were able to conduct EEAs by themselves, provided that management supported their efforts through the purchase of basic energy measurement equipment. IUWASH trained approximately 70 staff from 14 PDAMs in this area.

Energy Efficiency Audit handbook

To further support the sustainability of the PDAM EEA process, IUWASH collaborated with USAID-ICED (Indonesia Clean Energy Development) project and the Ministry of Public Works and Housing (Directorate General Cipta Karya) to prepare the *Energy Efficiency Audit guidelines*. IUWASH prepared the technical aspects and ICED focused on the financing options provided within the of Efficiency Energy. The guideline was prepared using a combination of theory and field experience, and consists of: (a) background; (b) issue and challenges of efficiency energy at PDAM; (c) understanding electricity and pumping system and efficiency; (d) causes of decreasing energy efficiency; (e) staging of energy audit and equipment required; (f) alternative program to reduce energy cost; and (g) funding alternatives. The guideline together with a roadmap was disseminated by MPWH at the Water, Sanitation and Cities Forum in Feb 2015.

Performance Based Contract

Even if EEA results showed that, with limited investment a PDAM can make substantial savings, the financial capability of many PDAMs is still limited, and therefore, IUWASH in close collaboration with MPWH (Directorate Cipta Karya), in PY5 developed a Performance Based Contract (PBC) scheme as an alternative finance mechanism. IUWASH prepared the draft of required documents (contract and feasibility study) to implement a PBC scheme for Energy Efficiency. This was presented in the IWWEF conference in May 2016, and by end of IUWASH, it was under discussion by MPHWH together with other key institutes such as BPKP, Ministry of Home Affair, Ministry of Finance, Perpamsi, etc.

Energy Efficiency Best Practice booklet

To create awareness and socialize the importance of implementing Efficiency Energy for PDAMs, IUWASH prepared a *Best Practice Booklet of Efficiency Energy* in Bahasa Indonesia, describing how an EEA is conducted and the benefits of such an exercise for several PDAMs. Included in the booklet are the actual audit results from 13 PDAMs (Asahan, Tanjung Balai, Langkat, Tebing Tinggi, Maros, Takalar, Jeneponto, Kabupaten Bekasi, Surakarta, Salatiga Rembang, Sukoharjo and Gresik) showing the result of their EEA, recommended actions, estimated investment costs, and a cost-benefit analysis.

Dissemination of EEA results

During IUWASH, the importance and benefits of the PDAM Efficiency Energy program were widely disseminated during local and national workshops/seminars, including the Efficiency Energy Workshop in Feb 2015, the Water, Sanitation and City Forum in May 2015, at PDAM Clinic programs conducted by Perpamsi in Jakarta and Makassar, and at IWWEF conferences conducted in 2014 and 2016. All main stakeholders from Government and non-governmental (such as PERPAMSI) and donors are now fully aware of this program and the (financial) benefits for PDAMs.

Table 4: Summary of Achievements in Energy Efficiency

Region	PDAM	Summary of Achievements
North Sumatra	Tanjung Balai	EEA was conducted for 7 pumps with recommendation to replace 3 intake pumps for total investment of Rp 1 billion and payback period of max 2.5 year; also to recondition impellers of other 4 pumps with investment cost of Rp 160 million and payback period of 0.6 year.
	Asahan	EE was conducted for 4 pumps with recommendation that 3 pumps are replaced with total investment of Rp 750 million and payback period of less than 1 year. And recommended to recondition the pump impeller at 1 pump, with total investment cost Rp 10 million and saving Rp 6 million per year
	Langkat	EEA conducted at 4 pumps. PDAM management plan to follow up EEA result with 3 of 4 audited pumps has efficiency below 21% and recommended to be replaced. The payback period of these 3 pumps is less than 1 year.
	Tebing Tinggi	7 pumps were audited and recommended to recondition 3 units and replace 3 units for estimated Rp 1.2 billion and payback period between 0.7 - 3 year.

Region	PDAM	Summary of Achievements
West Java Banten DKI	Kab. Bekasi	Presented EEA result audit to PDAM Management and monitoring the follow up of Energy Efficiency Audit at 9 pumps. The EEA audit was conducted at 4 units Water Treatment Plant, Poncol unit, Rawa Tebaga unit, Rawa Lumbuunit and Babelan unit.
Central Java	Surakarta	Based on recommendation from the Efficiency Energy Audit results conducted in 2013, PDAM installed variable speed driver at Kartosuro and Banjarsari units.
	Salatiga	4 check valves were installed as recommended by EEA also PDAM replaced motor at Kalisombo from 65KW to be 55 KW, replaced submersible pump of deep well and reduced electricity from 3 phase to be 2 phase at unit Sukowati.
	Rembang	PDAM modified 2 pumps from separate to parallel operation as recommended from EEA.
	Sukoharjo	PDAM replaced 1 unit centrifugal pump at Legundi, 2 units centrifugal pumps capacity 25 l/s and H 30 metre at Troyo WTP as recommended by efficiency energy audit.
East Java	Gresik	PDAM replaced 2 units distribution pump and installed inverter at Giri reservoir and replaced 1 unit distribution pump at Perumnas as recommended from EEA.
South Sulawesi	Pare-Pare	PDAM not yet implemented EEA recommendation due to new PDAM Director.
	Maros	EEA was conducted at 8 pumps. 2 distribution pumps with capacity 10 l/s and 20 l/s are recommended to be replaced for Rp 210 million with payback period 0.8 year and 1.1 year
	Takalar	EEA was conducted at 22 pumps located at 7 IKKs. It was recommended impeller pumps of 3 pumps need to be recondition or to be replaced, estimated Rp 160 million and payback will be between 0.4 -1.5 years.
	Jeneponto	15 pumps at 5 WTPs were audited with results that impeller from 2 pumps need to be replaced for estimated Rp 205 million and payback period 0.6 and 1.6 year.
National		<ul style="list-style-type: none"> • Handbook of Energy Efficiency Audit guidelines completed. • Concept of Energy Efficiency Road Map for Directorate General Cipta Karya completed • Booklet on EEA Best Practice and Lesson Learned at 8 PDAMs completed. • Concept of Performance Based Contract template and contract mechanism completed. • Compilation report of Energy Efficiency Audit at 13 PDAMs, completed

Non-Revenue Water Reduction

Reduction of Non-Revenue water (NRW) has been a substantial contributor to improvements in PDAM operational and financial performance, especially for PDAMs which do not have idle capacity to connect new customers and have problems with pressure management. NRW levels at almost all PDAM are still high (often more than 35%), and programs conducted by IUWASH to support PDAMs to reduce NRW level included classroom and on the job (OTJ) training for PDAMs staff, demonstration projects of District Metering Areas (DMA), field measurement assistance, and preparing Director Decrees (PDAM regulations) related to NRW that address critical issues such as dealing with illegal connections.

IUWASH supported the establishment of DMA pilot projects at 6 PDAMs (Kudus, Rembang, Kabupaten Semarang, Batang, Sukoharjo and Kendal) which were then replicated by the PDAMs themselves in collaboration with IUWASH and AKATIRTA. Another good example is Jayapura, where IUWASH supported the PDAM to reduce the non-technical aspects of NRW, such as illegal connection, by installing customer meters and socializing the impact of NRW on communities.

To further strengthen PDAM staff capacity, IUWASH conducted a series of NRW reduction training sessions in all program regions. For PAM Jaya, AETRA and Palyja (operators in DKI Jakarta), IUWASH prepared and conducted advanced NRW training which was attended by the area's Regulatory Body, PAM

Jaya, Aetra and Palya. The training was divided into two phases with relevant training material provided for participants who serve as technical specialists and those that serve as managers. IUWASH also conducted a Preliminary Study of Non-Revenue Water in DKI (for Palyja and Aetra) and advised how to calculate NRW levels based on IWA standards.

In 2013, IUWASH collaborated with MIYA, an international company specializing in NRW reduction, and jointly introduced the possibility of Performance Based Contracts for NRW between PDAMs and MIYA. After introducing this concept to 5 PDAMs (Bogor, Semarang, Surakarta, Surabaya and Malang), two of them (PDAM Semarang and Surakarta) reacted positively, and a MoU was drafted with Miya, outlining the NRW study (financed by Miya) and follow-up steps by the PDAMs. Unfortunately, the Miya site required more guarantees for follow-on work after the NRW study than the PDAMs could accept and the potential PBC schemes did not materialize.

See the following table for additional details on NRW activities.

Table 5: Summary of Achievements in NRW Reduction

Region	PDAM	Summary of Achievement
North Sumatra	6 PDAMs	On 2013, IUWASH conducted NRW training for 7 PDAMs at North Sumatra. (Binjai, T. Tinggi, Pem. Siantar, T. Balai, Asahan and Labuhan Batu)
	Langkat	IUWASH conducted NRW training for PDAM staffs and direct implemented to mentor PDAM staff on measuring result of 23 discharge & pressure measurement installed to analyze water flow and possibility NRW
West Java , Banten , DKI	PAM Jaya	<ul style="list-style-type: none"> Preliminary study of Non-Revenue Water at DKI (Aetra and Palyja) was completed. The study showed that NRW at Palyja was 40,2% consist of 23,4% physical losses and 16,8% commercial losses, while NRW at Aetra was 45,8% consist f 27,3% physical and 17,2% commercial losses. In 2015 IUWASH advised how to calculate NRW based on IWA standard to NRW team of Palyja and Aetra team; Also advanced NRW training was conducted 2 times attended by PAM Jaya, Regulatory Body and operators (Palyja and Aetra).
	Kota Bekasi	Conducted NRW training attended by 20 PDAM staffs and facilitated PDAM Kota Bekasi to be more understanding how to prepare and conduct NRW reduction
Central Java	Kendal	IUWASH supported to set up DMA and PDAM replicated DMA with 800-1000 customers. PDAM conducted leak detection at DMAs supported by IUWASH. On year 2015 PDAM replaced 1.500 customer water meters.
	Sukoharjo	IUWASH supported to set up pilot project DMA and monitored NRW reduction at DMA Pucangan. PDAM conduct accuracy test of all customer meter and replace 750 meters as part of NRW activities. PDAM also prepared pipe distribution map and already mapping 50% of distribution network mapping at each IKK area as preparation to set up DMA and complete as built drawing of distribution network.
	Rembang	IUWASH supported to set up pilot project DMA and PDAM replicated DMA at Desa Ngotet at unit Rembang City.
	Batang	IUWASH supported to set up pilot project of DMA at Karangasem and Kidung loah (816 households), and PDAM replicated DMA at Batang City unit. During preparation of DMA replication, PDAM found 4 leaks and already fix. NRW in DMA was reduced from 32% at 2013 to 23,4% at the middle of 2014
	Salatiga	IUWASH supported to set up pilot project of DMA at Sidomukti. To monitor NRW level, PDAM installed master meter at Senjoyo production unit and replicated DMA at Tingkir.
	Surakarta	IUWASH supported to set up pilot project of DMA at Pucang Baru (516 households), On year 2015 PDAM replaced 6.000 unit customer water meters at area of DMA Pucang sawit.
	Kab. Semarang	Support to monitor of NRW level.
East Java	10 PDAMs	In 2013, collaborating with PDAM Kota Malang conducted NRW training for 10 PDAMs (Kota Mojokerto, Kab. Mojokerto, Kota Probolinggo, Kab. Probolinggo, Kab. Lamongan, Kota Batu, Kab. Jombang, Kab Sidoarjo, Kab Gresik, Kab Malang). 6 of 10 PDAMs formed NRW team.
	Kota Probolinggo	Following up NRW training, PDAM conducted leak detection program through visual inspection in the night

Region	PDAM	Summary of Achievement
	Kab. Malang	Facilitated PDAM to set up DMA at Pakis and at Mangunrejo. NRW level at area of DMA Mangunrejo reduced from 32% to 27%. and PDAM continue to reduce NRW at both DMAs.
SSEI	11 PDAMs	NRW training was conducted in 2014 to increase awareness and capacity to manage NRW for 11 PDAMs (Kab. Enrekang, Kota Pare-Pare, Kab. Maros, Kab. Takalar, Kab. Jeneponto, Kab. Pinrang, Kab. Bantaeng, Kab. Sidrap, Kota Makassar, Kota Ambon and Kab. Jayapura)
	Jayapura	IUWASH supported replacing /installing 960 units of customer water meter, 300 units at Jaya Asri, 600 units at Entrop and 60 units at Harbor area. NRW program focused on non-technical aspect, identifying illegal connection and replacing water meter at 2 zones (400 hh). Also Agreement to crack down illegal water use and connection by PDAM and police institution that was supported by IUWASH was signed.

Distribution Network Improvement

The purpose of supporting PDAMS with distribution network improvement (DNI) was to reduce inefficiencies in the systems which could translate into improved service provision to customers, especially those at the end of distribution networks (most often the low income communities). Additionally, this program was important to teach PDAM staff how to better accommodate future expansion in distribution network planning. IUWASH supported the evaluation of existing networks as well as programs to optimize them through the development of related DEDs for the distribution networks of 19 PDAMs. See Table 6 below for a summary of DNI activities.

For instance, the current water distribution network in Kota Makassar, especially in the old city area, was not functioning properly due to dilapidated piping as well as a physical layout which had not been upgraded despite changes in the overall system that would normally necessitate such upgrading. To improve water distribution in this area, IUWASH supported PDAM Makassar in conducting a technical study and DED for a new distribution network. The PDAM accepted the results of study and, by the end of IUWASH, had begun implementation of the study's recommendations. PDAM Pare-Pare was facing similar conditions with regards to their water distribution system, and a technical study by IUWASH recommended changes throughout the entire PDAM service area and further prepared related DEDs.

An example of how IUWASH supported the expansion of distribution networks can be found in PDAM Kota Bekasi, where the PDAM is constructing a new Water Treatment Plant (in Pondok Gede) that will serve 28.000 new connections. IUWASH supported PDAM Bekasi in preparing a DED for the accompanying distribution network which was under construction at the end of IUWASH.

Additionally, IUWASH conducted a variety of capacity building activities, including distribution network planning, EPANET training, introducing the use of Google Earth in distribution network mapping, assisting PDAM staff in preparing as-built drawings, and providing training in how to plan for future system expansion. At the national level, the IUWASH team regularly conducted meetings with MPWH to allocate APBN in support of investment needs for IUWASH cities.

Table 6: Summary of Achievement in Distribution Network Improvement (DNI)

Region	PDAM	Summary of Achievement
North Sumatra (7)	6 PDAMs	Training to utilizing Google Earth as a background of pipe distribution network mapping. This training is crucial for all PDAM to prepare as built drawing, which currently are either outdated or non-existing.
	Tirtanadi	IUWASH conducted Survey and mapping of 1.000 poor households at 6 Kelurahan at Medan City as the basis for mapping new coverage area utilizing water from new Martubung Water Treatment Plant to serve the poor in Belawan. IUWASH also prepare DED of distribution network to serve Belawan Bahagia, Belawan I and Bagan

Region	PDAM	Summary of Achievement
		Deli from 2 deep wells with 10 l/s capacity each are operation. The project funded from APBD kota Medan, while APBN through Satker North Sumatra Province just accomplished the main trunk distribution pipe from Martubung to belawan.
	Langkat	Following up training and field survey distribution pipe, IUWASH supported PDAM to use GIS to complete as-built drawing..
	Tanjung Balai	Final report of DED of distribution pipe for 50 l/s to serve 4.000 connections is completed. Satker accepted DED to obtain APBN 2016 and the budget had discussed in Cipta Karya Regional consultation.
WJDB (1)	Bekasi	IUWASH completed facilitated DED of Distribution Network, 300 l/s estimated Rp 200 billion investment from APBN and APBD
Central Java (5)	5 PDAMs	To improve water distribution, IUWASH facilitated the Evaluation and Optimization of distribution network in 5 PDAMs Central Java (Kab. Batang, Kab Rembang, Kab. Kudus, Kab. Suoharjo, Kab Klaten) , to reduce one of the problems faced by PDAM, which inefficiencies in the distribution network leading to low water volume and pressure at the customer point. Besides poor service to customers. This also leads to complaints, problems with billing.
	Batang	IUWASH supported PDAM to implement recommendations from optimization of distribution network : <ul style="list-style-type: none"> • Construct new broncaptering at Bimo (5 l/s) and Watulumbang (10 l/s) • Installed transmission pipa dia 100 mm – 2.400 meter at Bismo • Installed distribution dia 50 mm and 100 mm at dukuh Bungkus, Benaran and Pager Punung and dia 150 mm at cabang Bandar
	Rembang	As recommended from DED of optimizing distribution network, PDAM replaced transmission pipe dia 300 mm at Banyukawung, desa Japa and desa Pangkiran, as well as dia 250 mm at desa Sukaorejo. Mapping of distribution pipe that was trained by IUWASH already covered 100% of existing distribution network.
	Klaten	More than 60% of distribution network already mapped.
	Sukoharjo	IUWASH facilitated the construction of reservoir capacity 200 m3 and has been utilizing by PDAM Sukoharjo.
	2 PDAMs	Training was conducted on Design of Optimizing Distribution Network, including use of EPANET and Google Earth for 2 PDAMs (Lamongan and Probolinggo).
East Java (2)	Lamongan	IUWASH supported the implementation of optimizing distribution system, post-operation of WTP Ploso for 100 l/s. The Services to customer is improve since pipe replacement as recommended from distribution optimization study.
	Probolinggo	PDAM developed distribution system in the South Area of Kota Probolinggo as recommended from distribution optimization study. Presently PDAM staffs are able to use EPANET for analysis the existing hydraulic condition and planning of distribution pipe
	Makasar	Detailed study of Distribution system of old city area of Makassar supported by IUWASH completed with technical study and detailed design of distribution network. IUWASH also encourage PDAM to implement DED.
SSEI (4)	Pare-Pare	Detailed design of distribution network to improve water distribution completed and IUWASH encourage for implementation the result of Detailed Design result.
	Takalar	Study of optimization and development of distribution network PDAM Kabupaten Takalar completed
	Jayapura	IUWASH support PDAM identify to replication the water access increasing in UPP Sentani (Kab Jayapura); UPP Doyo Baru dan Doyo lama (2000 connections) and UPP Yahim (100 connections)

Production Capacity Optimization

Optimizing production capacity is a critical part of increasing access to piped water which provides direct benefit for customers and PDAMs. Optimizing production includes improving water quality at production sites, uprating existing production units or designing new production units to expand service coverage. In many cases, financing is available from the GOI through Provincial SATKER (of MPWPH) to expand

production capacity, but PDAMs often do not have the capacity to conduct technical assessments and develop DEDs as required by SATKER.

IUWASH supported 11 PDAMs with technical assessments and DEDs to obtain APBN financing for the construction new production facilities. Before IUWASH started, meetings were held with the concerned PDAMs, PEMDAs and SATKERs to make sure the commitment for financing was genuine. Details include:

- Study and preparation of Detailed Design was done for upgrading the water treatment plant at PDAM Lebak, increasing capacity by 50 l/s, which provided piped water for additional 18,000 people. Required funding for construction was provided through the APBD.
- IUWASH facilitated development of a DED for four (4) projects in North Sumatra to support increased access to piped water for total capacity of 140 l/s (serving 50,000 people). The projects were financed by APBN for Rp 27 billion (US\$ 2 million). Designs and construction included new WTP, piping and reservoirs.
- In the Jombang area of Semarang, a raised reservoir was designed, constructed and handed over to the PDAM. It supplies safe water to 5,000 poor people, who paid the connection fee through a microfinance scheme arranged by the PDAM and IUWASH, using internal cash of PDAM Semarang.
- IUWASH also supported preparation of an FS and DED for the MEBIDANG regional water supply system with a capacity 2.100 l/s. Water has been allocated for PDAM Tirtanadi Medan (1,500 l/s), PDAM Binjai (300 l/s) and PDAM Deli Serdang (300 l/s). The construction will be done in 2 stages, with the first stage (for 1,050 l/s) requiring investment of Rp 850 billion (US\$62 million) and which is expected to be financed by a loan from KfW (to Central Government), APBD as well as internal cash of PDAM Medan. Project negotiations are in the final stages with construction planned to begin in 2017.
- In Jeneponto, IUWASH completed training of PDAM staff in improving water quality from the treatment plant and through the distribution network. The results are greatly appreciated by local communities, and many are now requesting connections to the system (as opposed to previously).
- To increase understanding of potential problems of water quality in production facilities and distribution networks, IUWASH conducted monitoring of chemical dosing at 15 PDAMs, combining field surveys with secondary data and direct observations on chemical dosing practice. This involved a review of how PDAM operators calculate chemical dosing, what equipment is used for dosing, how they monitor water quality, the sufficiency of laboratory facilities, the processes for procurement and storage of chemicals, and staff qualifications. Results of the study were compiled in a report and recommendations shared with all PDAMs, who greatly appreciated this and immediately started improving their procedures.

See the following table for additional details on PCI activities.

Table 7: Summary of Achievement in Production Capacity Improvement

Region	PDAM	Summary of Achievement
North Sumatra	Labuan Batu	Detailed Design for 2 water supply system, IKK Bilah Barat and IKK Rantau, total capacity 90l/s complete with intake, reservoir 2 x 500 m3 and main distribution pipe 12 km, funding for construction cost from Central Government through Satker around Rp 20 billion. SPAM Bilah Barat and Rantau Utara are operating but not hand over yet to PDAM.
		DED for IKK Panai Tengah 20 l/s supported by IUWASH is completed and the water system are operation but not hand over yet to PDAM. SATKER PAMs is tendering construction for piping and booster pump,
	Tebing Tinggi	Detailed Design for Water Supply System, capacity 50 l/s, completed with intake, reservoir 500 m3 and main distribution pipe 15 km, funding for construction cost from Central Government through Satker around Rp 8.5 billion. The system was constructed by SATKER (APBN Rp 8.5 billion) an in operation.
	Tanjung balai	DED for 1 Water Supply System (50 l/s) completed and under construction with

Region	PDAM	Summary of Achievement
		APBN/Satker financing (Rp 11 billion) Final report of Study and Detailed Design to up-rate WTP from 50 -100 l/s completed. DED accepted by SATKER to obtain APBN 2016 funding. Final report for DED water distribution is completed and accepted by SATKER to obtain APBN 2016 funding.
	Binjai	Detailed design of WTP completed. The first 20 l/s including distribution pipe has been allocated by APBN 2015. SATKER will use DED to obtain financing from APBN 2016 for second phase (20 l/s)
	WTP Regional	IUWASH completed Feasibility Study and the DED for MEBIDANG Regional water supply system with capacity 2100 l/s is completed. The implementation plan is on-going discussion during all related parties involved
West Java, Banten	Lebak	DED of uprating 2 WTPs supported by IUWASH completed. Province budgeted Rp 700 million in 2015 to uprate WTP from 20 l/s to 50 l/s. IUWASH encourage to implement result of DED
	Kab Bandung	DED of Water supply system Kertasari, 2000 l/s from 5 springs completed; require investment Rp 194 billion from APBN. PDAM continue to coordinate with GOI and local government to get financial support.
Central Java	Semarang (Jomblang)	Water tower and reservoir for 1,000 low income households completed and connections made.
	Sukoharjo	DED to up-rate WTP Pondok Indah from 25 l/s to 50 l/s completed. PDAM already budgeted the construction cost in year 2016 program.
East Java	Lamongan	To increase drinking water availability, IUWASH supported to conduct Study and Pre design and optimizing of Re-rating from 210 l/s to 500 l/s, and prepare SOP of operation and maintenance of WTP. Satker will propose this program to central government around Rp 6.2 billion. IUWASH also provided training on SOP of O&M of WTP Babat that is already uprated from 150 to 190 l/s financed by APBN 2015. PDAM staff have been implementing the SOP.
	Kota Mojokerto	To increase drinking water availability, IUWASH supported to conduct Study and Pre design of Re-rating from 70 l/s to 150 l/s, and prepare SOP of operation and maintenance of WTP. From the cost estimate Rp 4.2 billion, Satker already budgeting Rp 2.5 billion for this year and will propose budget of Rp 1.7 billion for next year.
South Sulawesi	Jenepono	Communities refused to consume water from PDAM Jenepono due to the water quality from PDAM. To improve the water quality, IUWASH conducted Water Quality Management training, and the result is number of PDAM connection is increase and customer complaint reduce significantly. and IUWASH monitored water quality test result every 6 months and will provide refresher training if needed
National	15 PDAM	Assesment report of existing implementation and monitoring of chemical dosing is completed

GIS/MIS support

Since 2012, IUWASH has been heavily involved in supporting over 30 PDAMs in setting up and/or improving GIS/MIS, with the aim of increasing understanding and capability related to the application of GIS/MIS. By using GIS/MIS, PDAMs improved operation and maintenance of distribution networks, improved services to customers through more accurate and timely water billing, accelerated network expansion and the number of customers served, as well as improved the evaluation of network conditions and taking action as necessary. For those PDAMs which were not yet familiar with GIS technology, IUWASH provided basic GIS training, while for PDAMs already using GIS, IUWASH assessed on case by case basis how to improve and optimize their capacity and, where requested, introduced MIS for customer data. A summary of achievements under this program over the life of IUWASH is presented in Table 8 below. Some highlights under this program include:

- IUWASH trained staffs from 35 PDAMs (7 in North Sumatra, 2 in West Java, 10 in Central Java, 10 in East Java and 6 in South Sulawesi) in the use of GPS to digitize customer and distribution network data and install and operate free GIS software or improve their existing GIS software.
- In collaboration with MPWH, IUWASH conducted a workshop for 21 PDAMs in North Sumatra and South Sulawesi, introducing MIS software “INFO PDAM” prepared by MPWH as free software for PDAMs. IUWASH supported the installation of “INFO PDAM” at the PDAMs of Maros and Jeneponto.
- To make use of other existing and very relevant resources, IUWASH collaborated with PDAM Kota Malang and PDAM Kab Bandung, who already have excellent GIS / MIS system (using open source software) to facilitate workshops for 50 PDAMs (from all IUWASH regions) to introduce a free software system prepared by PDAM kota Malang and PDAM Kab Bandung.
- Following-up the above workshop, four (4) PDAMs (Medan, Kota Bekasi, Salatiga and Rembang) requested that IUWASH facilitate peer-to-peer learning through engaging GIS / MIS specialists from the PDAMs of Kota Malang and Kab Bandung to assist them in preparing “Blue Prints” for GIS / MIS development for these 4 PDAMs. PDAM Medan and PDAM Kota Bekasi were mentored by PDAM Kota Malang, and PDAM Rembang and PDAM Salatiga were mentored by PDAM Kabupaten Bandung. It was stressed that PDAM management must have strong commitment and be consistent during the whole process, as it is likely they initially will face challenges from their own staffs who may not want to be monitored online.
- In collaboration with PDAM Kota Malang, IUWASH also facilitated PDAM Kab. Mojokerto to improve its MIS system, starting with PDAM Kabupaten Mojokerto visiting PDAM Kota Malang to observe their MIS. After that, PDAM Kota Malang’s IT team then made an assessment of the MIS of PDAM Kab. Mojokerto and provided training on how to improve the system. PDAM Kab Mojokerto then assigned their staff to serve in an apprenticeship at PDAM Kota Malang for 2 weeks.
- After the first GIS trainings, the IUWASH GIS team set up a Blog named “Belajar GIS Bersama IUWASH” as a discussion forum for all PDAM staff who participated in program-sponsored trainings. Participants posted results of their work, shared experienced and raised questions. IUWASH will continue hosting it until the end and discuss with PERPAMSI the possibility of that organization hosting it or a similar forum thereafter.

Table 8: Summary of Achievements under GIS/MIS Program

Region	PDAM	Summary of Achievement
North Sumatra	Sibolga Langkat Binjai Pem Siantar Asahan T. Balai Labuan Batu Tebing Tinggi	5 days training GIS and spatial data development and mentoring to digitize pipeline and customer for 7 PDAMs by 2 GIS facilitators and the progress are: <ul style="list-style-type: none"> • PDAM Sibolga 7 staff trained, digitizing pipe line +800 customers + 200 non customers. • PDAM Langkat 2 staff trained, digitizing pipe line +500 customers + 100 non customers • PDAM Binjai 2 staff trained, digitizing pipe line 630 customers + 88 non customers • PDAM Pematangsiantar 3 staff, digitizing pipe line ;1,000 customers + 800 non customers • PDAM Asahan 2 staff, digitizing pipe line 2,000 customers + 1,500 pilot customers • PDAM Tanjungbalai 1 staff trained, digitizing pipe line done including 1,000 customers • PDAM Labuhanbatu 1 staff trained, digitizing pipe line done including 1,000 customers
	Kota Medan	IUWASH and PDAM Kota Malang, facilitate PDAM Tirtanadi to evaluate existing MIS/GIS and required short term program and improve MIS include to prepare blue print of MIS/IT development and billing and accounting application as part of blue print.
WJDB	6 PDAMs	Conducted MIS workshop with PDAM Kab. bandung and PDAM Kota Malang to introduce and offered to used their approved MIS System free of charge
	Kota Bogor	training and monitoring customer data billing interface to MIS, using open source software. IUWASH trained 14 PDAM staffs to enter spatial data for 60.000 customers
	Kota Bekasi	GIS training to prepare customer and distribution pipe spatial data include utilize GPS/ With PDAM Kota Malang facilitate PDAM to evaluate existing MIS/GIS and required short term program and improve MIS include to prepare blue print of MIS/IT development.
	Kab. Bekasi	GIS training to prepare customer and distribution pipe spatial data include utilize GPS
Central Java	6 PDAM	Conduct GIS Training and regular monitoring PDAM to implement GIS after training (Kudus, Klaten, Kendal, Kab Semarang, Batang, Sukoharjo), resulting in: <ul style="list-style-type: none"> • PDAM Kudus moved 25.000 of 29.430 customer data to become spatial customer data

Region	PDAM	Summary of Achievement
		<ul style="list-style-type: none"> • PDAM Sukoharjo moved 4.000 of 18.000 customer data to become spatial customer data • PDAM Klaten moved 11.000 of 35.600 customer data to become spatial customer data • PDAM Salatiga mapping 262,9 km distribution pipe and 3.800 unit customers • PDAM Batang digitizing and mapping 3.000 unit customers and 222 km distribution pipe • PDAM Rembang digitizing and mapping 3.250 unit customers and 100% distribution pipe
	Salatiga Rembang	Collaborate with PDAM Kota Bandung, IUWASH completed to facilitate PDAM Kota Salatiga to evaluate existing MIS/GIS and required short term program and improve MIS include to prepare blue print of MIS/IT development.
East Java	Kab Malang Kota & Kab Probolinggo Batu Jombang Gresik	<p>IUWASH conduct GIS training and monitor the follow up of the training :</p> <ul style="list-style-type: none"> • PDAM Kab. Malang completed all spatial data at Kec, Kepanjen unit (10.000 customers) already covered 75% of PDAM Kab. Malang customer data base. • PDAM Kab. Probolinggo 100% fill in pipe spatial data and 40% of customer data • PDAM Kota Batu fill in 70% spatial data of tertiary pipe and 60% of customer at GIS • PDAM Kab. Gresik completed 100% distribution pipe and customer spatial data at pilot area Kebomas and is going to conduct for Kecamatan Gresik area. • PDAM Kab Jombang completed 100% distribution pipe at all service area and 80% of customer data and to improve customer services the data can be accessed from HP either using Carry Map program • PDAM Kab. Probolinggo completed 100% distribution pipe and customer spatial data at pilot area Leceas and is going to conduct for Kraksaan area
	Kab Mojokerto and Kab. Sidoarjo	<p>IUWASH with PDAM Kota Malang, facilitate PDAM Kab. Mojokerto to improve MIS: (a) visited to PDAM Kota Malang to see MIS used by PDAM (b) PDAM Malang visit and assess existing MIS of PDAM Mojokerto (c) PDAM Malang trained MIS to PDAM Mojokerto staff (d) PDAM Mojokerto assigned hs staff to apprentice at PDAM kota Malang for 2 weeks.</p> <p>facilitated PDAM Kab Sidoarjo to have assessment of MIS required by PDAM Kota Malang. Based on this, PDAM Kab Sidoarjo will do cooperation with third party to improve their MIS.</p>
South Sulawesi & East Indonesia	8 PDAMS	Introductory training on GIS was conducted for 8 PDAMs (Pare-Pare, Pinrang, Maros, Takalar, Sidrap, Enrekang, Jeneponto and Bantaeng, plus UPTD Makassar) from South Sulawesi. This was then followed through direct support by GIS trainer for all PDAMs and UPTD in developing spatial database of their customer database and distribution network.
	Maros and Jeneponto	IUWASH supported Directorate General Cipta Karya to install and monitored utilization of INFO PDAM and E PDAM.
National		<p>Set up and train “<i>Blog of Belajar GIS bersama IUWASH</i>” to all PDAM partner at all regions as discussion forum to improve MIS at PDAMs partner.</p> <p>Conducted workshop to introduce “INFO PDAM” developed by MPWH, as MIS system that could be installed by PDAM free of charge for 9 PDAMs in North Sumatra and 12 in SSEI</p>

Program WS-2: Improved PDAM Financial Aspects

PDAM corporate planning

Corporate planning provides a basis for the medium-term development of each PDAM, representing a critical entry-point for service improvement. Over the course of the past five years, the IUWASH Program provided technical assistance to 34 PDAMs in the compilation of corporate plans (see Table 9 below for a summary of achievements under this program). Importantly, the Program utilized a participatory approach in this process, working alongside PDAM representatives in a manner that maximized knowledge transfer and engendered sustainability. Typically, the planning process began with the development of a comprehensive assessment of the utility’s current technical, managerial, and financial condition, which then served as the basis for developing the improvement program. The process was considered complete following the endorsement by Mayoral Decree.

Of the 34 PDAMs receiving corporate planning assistance, 20 ultimately obtained the approval of the mayor or bupati. There are a number of reasons why some utilities did not receive local government endorsement; these include the continuance of negotiations beyond the IUWASH end date (e.g. Jombang,

Sidoarjo and Gresik), internal blockages or lack of stakeholder consensus (e.g. Langkat, and Labuhan Batu), and the transfer of the completion process to another donor program (e.g. Klaten). The table below details the final results of corporate planning efforts with each respective utility.

Table 9: IUWASH PDAMs Receiving Corporate Planning Support.

No	Location	Remarks
1	Tanjung Balai	Final with approval from Mayor in November 2013
2	Tebing Tinggi	Final with approval from Mayor in June 2014
3	Pematang Siantar	Final with approval from Mayor in November 2013
4	Langkat	Final without approval from Mayor.
5	Kab. Labuhan Batu	Discontinued.
6	Kota Sibolga	Final in process – Full document completed being approved by mayor.
7	Tirtanadi Medan	Final in process – Full document completed in July 2015, being approved by Governor of North Sumatera.
8	Kab. Karawang	Final with approval from Bupati in September 2013.
9	Kab. Bekasi	Final in process – The original draft (prepared in 2014) requires revision.
10	Kota Bogor	Final with approval from Mayor in February 2014. Need revision to include LLTT program being organized by PDAM.
11	Kab. Serang	Final with approval from Bupati in July 2013.
12	Kab. Lebak	Final in process – Draft completed in July 2014, being approved by Bupati.
13	Kota Bekasi	Final with approval from Mayor in June 2015.
14	Kab. Tangerang	Final in process – Full document completed. Being approved by Bupati
15	Kab. Kendal	Final with approval from District Head in May 2013
16	Kab. Kudus	Discontinued.
17	Kab. Semarang	Final with approval from Bupati in August 2015.
18	Kota Salatiga	Final in process – BPPSPAM (PU) has taken over the following process for finalization that include bupati approval step.
19	Kab. Sukoharjo	Final with approval from Bupati in September 2013.
20	Kota Semarang	Final with approval from Mayor in November 2014.
21	Kab. Klaten	Discontinued (Indll to finalize).
22	Kab. Batang	Final with approval from Bupati in September 2015.
23	Kab. Jombang	Final in process – Full document completed being approved by Bupati.
24	Kab. Probolinggo	Final with approval from Bupati in July 2014
25	Kota Probolinggo	Final with approval of Walikota in November 2012
26	Kab. Mojokerto	Final with approval from Bupati in October 2013
27	Kota Batu	Final with approval from Bupati in October 2013
28	Kab. Lamongan	Final with approval from Bupati in July 2014.
29	Kota Malang	Final with approval of Walikota in February 2015.
30	Kota Mojokerto	Final with approval of Walikota in September 2014
31	Kabupaten Gresik	Final in process – Full document completed being approved by Bupati.
32	Kabupaten Sidoarjo	Final in process – Full document completed being approved by Bupati.
33	Kab. Bantaeng	Final with approval of Bupati in March 2016
34	Kab. Jayapura	Final in process – Full document completed being approved by Bupati.

PDAM tariff review and billing and accounting programs

Regular, incremental tariff adjustments are a fundamental aspect of ensuring the financial health of a PDAM and, in doing so, supporting continued expansion of services. Further, modernized accounting and billing systems allow PDAM to better track its expenses and make informed financial decisions.

Over the course of IUWASH, the Program supported 26 PDAMs in tariff adjustments and/or reclassification, with 18 ultimately being approved by the local government administration (see Table 10 below for a list of PDAMs that received tariff adjustment assistance). In support of tariff adjustments, IUWASH worked in a participatory manner with the PDAM to analyze operating and capital costs and

calculate a cost recovery rate that was fair to customers while providing the utility with the cash flow needed to provide sustainable service. Further, to increase revenue without any tariff adjustment, the Program helped PDAMs to update their customer classification through a census of customers and the development of a new database. Customer economic profiles are constantly changing, thereby requiring regular reviews of indicators such as house size. In some cases, the process of implementing a tariff reclassification also led to the proposal of a new tariff structure as well.

Table 10: IUWASH PDAMs receiving tariff adjustment support.

	Location	Remarks
1	Kota Sibolga, North Sumatera	Final - Tariff adjustment approved by Mayor in July 2014.
2	Kota Pematang Siantar, North Sumatera	Final - Tariff adjustment approved by Mayor in July 2013
3	Kabupaten Asahan	Postponed – Tariff adjustment postponed as Bupati request.
4	Kabupaten Karawang, West Java	Discontinued due to lack of PDAM engagement.
5	Kabupaten Purwakarta, West Java	Final – Tariff reclassification completed and approved by Bupati. Implementation is in September 2015.
6	Kabupaten Lebak, Banten	Final – Tariff reclassification completed and approved by Bupati. Implementation is in September 2015.
7	Kabupaten Serang	Final – Tariff Reclassification for 4,100 customers completed and implemented.
8	Kab. Klaten, Central Java	Final – Tariff reclassification is approved by Bupati in Dec. 2014.
9	Kota Semarang, Central Java	In process – Tariff adjustment analysis completed being discussed with PDAM supervisory board.
10	Kab. Sukoharjo, Central Java	Final – Tariff adjustment approved by Bupati in June 2015.
11	Kab. Batang, Central Java	Final – Tariff adjustment approved by Bupati in January 2014
12	Kota Solo	In process - Tariff reclassification for water completed. Tariff for regular desludging is under review by PEMDA.
13	Kab. Mojokerto, East Java	Final – Tariff adjustment approved by Bupati in February 2014.
14	Kab. Probolinggo, East Java	Final – Tariff adjustment approved by Bupati in January 2014.
15	Kab. Lamongan, East Java	Final – Tariff adjustment approved by Bupati in July 2013.
16	Kab. Gresik, East Java	Final – Tariff adjustment approved by Bupati in December 2013
17	Kota Mojokerto, East Java	In Process – Tariff adjustment discussed with supervisory board. Next step is Bupati approval.
18	Kab. Jombang, East Java	In process – Tariff adjustment to obtain Bupati approval.
19	Kota Parepare, South Sulawesi	Final – Tariff adjustment approved by Mayor in January 2013
20	Kab. Sidrap, South Sulawesi	Final – Tariff adjustment approved by Bupati in June 2014
21	Kab. Jeneponto, South Sulawesi	Final – Tariff Reclassification process implemented in Aug2015.
22	Kab Takalar, South Sulawesi	Final – Tariff Reclassification process implemented in July 2015.
23	Kab. Pinrang, South Sulawesi	Discontinued – Tariff adjustment - PDAM internal issue.
24	Kab Enrekang, South Sulawesi	Final – Tariff adjustment approved by Bupati in February 2014.
25	Kab. Bantaeng	Final – Tariff Reclassification implemented in August 2015.
26	Kab. Maros	In Process – Tariff Adjustment proposal under review.

Billing and Accounting

Modern, computerized information systems are critical to timely and informed decision-making by PDAM managers. IUWASH worked with 17 utilities during the period of performance to upgrade the manner in which they track and manage their finances. Implemented in nearly every IUWASH province (Central Java excepted), the Program adopted a “triggering model” in which IUWASH supported two crucial modules—

billing and accounting—while the PDAM then used internal resources to gradually expand the management information system to cover other needs such as human resources. PDAM Pematang Siantar provides a good example of how improved information systems can stimulate other improvements—the IUWASH investment in a computerized, interconnected billing system dramatically expanded payment point options for customers across the city. In addition, by facilitating the development of an IT roadmap for PDAM Tirtanadi Medan, IUWASH catalyzed greater PDAM investment in information systems as the utility operationalized the road map with its own resources.

Table 11: IUWASH PDAMs Receiving Billing and Accounting Program.

	Location	Area of Improvement
1	Kota Pematang Siantar, North Sumatera	Billing and Accounting
2	Kab. Asahan, North Sumatera	Billing, Accounting and Inventory
3	Kota Tanjung Balai, North Sumatera	
4	Kota Tebing Tinggi, North Sumatera	
5	Kota Binjai, North Sumatera	
6	Kab. Langkat, North Sumatera	Billing, Accounting, Inventory and Personnel
7	Kab. Labuhan Batu, North Sumatera	Billing, Accounting and Inventory
8	Tirtanadi Medan, North Sumatera	IT roadmap including Billing, and Accounting.
9	Kab. Lebak, Banten	Billing and Accounting
10	Kab. Serang, Banten	
11	Kab. Purwakarta, West Java	
12	Kab. Jombang, East Java	
13	Kab. Lamongan, East Java	
14	Kab. Gresik, East Java	
15	Kab. Enrekang, South Sulawesi	
16	Kab. Bantaeng, South Sulawesi	
17	Jayapura, Papua	

PDAM debt restructuring

The restructuring of overhanging debts is an important aspect of putting water service providers on the road to financial health, lowering the overall costs of outstanding loans thereby freeing up capital for new investments. During the reporting period, IUWASH provided assistance to 11 PDAMs to develop debt restructuring proposals in accordance with the requirements stated in Ministry of Finance no. 120/PMK.05/2008 and the subsequent regulation no 114/PMK.05/2012. Table 12 below summarizes PDAMs that received IUWASH debt restructuring support.

Table 12: IUWASH PDAMs Receiving Debt Restructuring Support.

	Location	Debt restructuring assistance	Remarks
1	Kota Tanjung Balai	Monitoring	Collaboration with ministerial offices: MOF, MoPW, BPPSPAM and BPKP.
2	Kota Tebing Tinggi		
3	Kota Pematang Siantar		
4	Sibolga Kota		
5	Kab. Karawang		
6	Kab. Tangerang.		
7	Kota Semarang		
8	Kab. Semarang		
9	Kota Surakarta		
10	Kab. Jombang		
11	Kab. Malang		

	Location	Debt restructuring assistance	Remarks	
12	Kab. Rembang	Facilitated development of business plan (restructuring proposal for Ministry of Finance).		
13	Kab. Gresik			
14	Kab. Mojokerto			
15	Kota Makassar			
16	Kab. Jayapura.			
17	Kab. Lamongan			
18	Kab. Probolinggo		Proposal is approved by local government and submitted to MOF.	
19	Kota Parepare			
20	Kab. Enrekang			
21	Kab. Maros			
22	Kab. Jeneponto			
23	Kab. Takalar			
24	Kab. Sidrap			
25	Kab. Langkat			Local government approval was not obtained during given period. PUPN is following process.
26	Kab. Pinrang			Document not completed - No audited report submitted to MOF. PUPN is following process.
27	Kab. Lebak			Proposal submitted to MOF and rejected for further process due to private sector managing the assets funded by loan. PUPN is following process.

Additionally, IUWASH in 2013 continued its involvement in the debt restructuring program by monitoring the achievement of business plans in coordination with the Ministry of Finance. Relevant ministries involved in this process included the Ministry of Finance, Ministry of Public Works, BPPSPAM and BPKP. In addition to the monitoring, IUWASH played an important role in the program of monitoring the progress against the targets set forth in those plans, thereby ensuring that the PDAMs remain eligible for the write-off of interest arrears. In this regard IUWASH created a tool that quantitatively tracked progress towards the achievement of specific objective, and this tool was ultimately used to monitor the business plans of some 75 PDAMs, including 16 PDAMs partnering with IUWASH. Notably, the results of the monitoring were used by the Ministry of Finance as the basis for write-off decisions for non-principal arrears.

In February 2016 the Ministry of Finance officially issued a formal regulation to write off non-principle arrears of PDAMs that achieved their business plan targets and repaid loan principal in a timely fashion in accordance with regulation no. 31/PMK.05/2016. In total, 37 PDAMs received formal approval, including 2 IUWASH PDAMs (Sibolga and Tebing Tinggi in North Sumatera).

Program WS-3: PDAM Customer Aspects

A good, professional customer engagement program is crucial for PDAM to receive support from their customers for tariff increases, willingness to connect to the system, and regularly paying their bills. IUWASH supported PDAMs to engage with their customers through tools like Customer Satisfaction Surveys (CSS) and establishing a PDAM Customer Forum to directly engage with customers. The contract deliverable for this task included the establishment of at least 20 Customer Communications Organizations that collaborate with PDAM on improvements in operation and performance.

IUWASH “9-Steps PDAM Customer Communication Forum Facilitation” Approach

IUWASH follows a 9-step process to facilitate the development of effective PDAM Customer Communication Forums (or Forum Pelanggan Komunikasi, FPK). Adapting processes developed under Eco-Asia (an earlier USAID-funded regional activity), this consists of the following:

- Step 1 Introduction of the topic and assessment of PDAMs
- Step 2 PDAM commitment building
- Step 3 PDAM internal preparation
- Step 4 Identification of potential customers

- Step 5 Customer Forum formation workshop
- Step 6 Customer Forum work program preparation
- Step 7 Customer Forum capacity building trainings
- Step 8 Customer Forum work program implementation
- Step 9 Monitoring and Evaluation

The most time-consuming steps were the second to third steps, which primarily deal with internal PDAM management. Some were initially reluctant to join because of a lack of local regulation requiring them to support a customer forum. With generally few examples of PDAMs with appropriate Customer Forums, many initially view such a platform for outreach as an extra burden, both financially and operationally. More detailed discussions of the benefits of improved outreach to customers were therefore required.

The next step is customer communication forum (FKP) establishment, which was done through workshop sessions, which sought to: 1) open up communication between the PDAM and customer representatives; 2) improve customer understanding of PDAM operations through guided tours of PDAM facilities (WTPs, springs, pumping stations, etc.); and (3) lead to the development of a joint plan on the actions required to build a longer-term relationship through establishment of a Customer Forum. The guided tours generally had an important role in changing any negative perceptions of the PDAM on the part of customers (as was initially often the case. They likewise became more interested in serving as a member of the Forum, understanding better its potential role in improving services.

Through the above and additional training, forum members learned all aspects of the role and functions of PDAMs and with that knowledge they could explain issues on PDAM operation better to other customers. Although not in-depth, they became better ware of the different facets of water supply systems, from the source(s) through treatment processes and ultimately through distribution and related billing and collection. For example, customers were able to better understand why water production decreases in the dry season and could better disseminate to the public why this was the case. In addition, they were also trained in simple techniques for detecting leaks at home and in distribution pipes (including that related to theft), as well as of the need to immediately report problems to the PDAM. After a joint work plan was approved by the PDAM Director, the forum began to monitor, record, and report PDAM services using monitoring sheets, monthly written reports and quarterly meetings. Other activities undertaken involved raising awareness directly among customers through customer meetings and home visits. Some Forums also involved local mass media, such as through interactive broadcasts on local television and radio stations (where customers could “call in” with questions and issues) as well as through local newspapers.

23 Customer Communication Forums established (IUWASH Target of 20)

By the end of IUWASH, 23 Customer Communications Forums had been established, noting that two (2) others that began working with IUWASH in this area dropped out of this activity due to internal PDAM problems. The following is summary of the 23 forums facilitated by IUWASH:

<u>North Sumatra Region</u>	4 in Langkat, Tebing Tinggi, Pematang Siantar and Sibolga
<u>West Java/Banten Region</u>	4 in Kab. Tangerang, Serang, Lebak and Kota Bekasi
<u>Central Java Region</u>	6 in Batang, Kota Semarang, Rembang, Surakarta, Klaten and Sukoharjo
<u>East Java Region</u>	6 in Sidoarjo ; Kab. Malang ; Kota Probolinggo ; Jombang ; Kab. Mojokerto and Lamongan
<u>South Sulawesi Region</u>	3 in Jayapura ; Maros and Takalar

Communication Mechanisms Created

While the establishment of the above Forums was an important milestone in each of the participating locations, the planning and implementation of specific mechanisms to communicate and report on PDAM service was equally critical to the overall success of IUWASH work in customer engagement. Several

mechanisms were generally developed for each forum depending on local preference and the issues to be addressed. The following is a summary of the most common communication mechanisms:

Customer Gatherings

Customer gatherings are essentially neighborhood level meetings and, facilitated by the Forums, they proved to be one of the more effective communication mechanisms. An example is that of the Forum established in Surakarta (referred to as FORKOMPAMTA) which strives to keep to a schedule of three customer meetings a month in different locations, and generally integrated into other community-based meetings (held by the RT, PKK, local schools or other platforms).

Local Radio or TV Talk Show

At least five (5) forums conducted interactive broadcasts on local radio stations (Semarang, Maros, Langkat, Probolinggo and Mojokerto) with the PDAM serving as facilitator. The incoming calls contained numerous complaints on PDAM service and, with PDAM staff present, the complaint could be directly addressed and, in some cases even resolved. Where there was no PDAM staff present, FKP staff explained issues to the extent of their knowledge and authority and later conveyed concerns to the PDAM.

Social Media

IUWASH worked with every FKP to use social media, with fan-pages to promote, report, and document Forum activities. Others used android-based applications (like Whatsapp). Through this, all Forum members could report on PDAM service, including disruptions, and obtain rapid responses directly from PDAM management.

Print Media

The Forum for PDAM Sukoharjo Java published their own newsletter, named Suara FKP (or *Voice of the Customer Communications Forum*) which contains information on forum activities. This adds a degree of pride to the work of the Forum members, demonstrating their strong commitment to improving service as well as the PDAM's commitment to customer participation in its operations.

Cooperation with the Community Leaders

While many problems faced by PDAMs are due to improper actions on the part of community members (such as the installation of illegal connections or degradation of raw water sources), a formal or coercive response is often not successful, especially over the long-term. Forums can be particularly effective in bridging the difference between the PDAM and local, traditional leaders (like in Jayapura), raising their awareness of key issues and the role they can play in resolving them. In the event a strict stance is eventually adopted by the PDAM, undertaking this level of engagement early helps avoid issues later on.

FKP Involvement in PDAM Internal Processes

PDAMs participating in this set of activities have often felt the need to involve representatives of customers in their internal processes, especially during the preparation of business plans and tariff adjustments. Forums have been very effective, for example, in disseminating information on the need for new rates and in identifying and addressing the concerns of those who may tend to be more vocal in their opposition. As communication is a two-way process, it also allows for the Forum to ensure that customer concerns are better addressed.

External Oversight

In some cases, Forums also monitored other parties involved in PDAM services, as in Lebak, where the Forum found that pipeline installation was not in accordance with the technical standards; or in Langkat, where the forum successfully identified and had dismantled an attempt by a housing development company to illegally connect to the PDAM network. Also in Langkat, the Forum sent a letter of protest against the operation of sand mining which led to decreased intake of raw water at a PDAM WTP. This action eventually led to the revocation of the company's operating license for quarrying.

Cooperation with Other Agencies

In many instances, the Forums became involved in broader local engagement, such as the FKP of Kota Semarang which initiated cooperation with the Institute for Urban Village Community Empowerment (LPMK), an organization of community empowerment at the village level. At a workshop held at PDAM office, 190 LPMK delegates learned about the role of the Forum, issues of concern to the PDAM, and ultimately agreed to become an extension of Forum at the local level to monitor, record, and report on services in their area.

Regional and National Level Cooperation

In Central Java, Paguyuban of Banyu Bening was formed as a conduit for information sharing and advocacy among six (6) Forums established by IUWASH. At the national level, the Forum Pelanggan Air Minum Nasional (National Forum of Water Customers or “FORPAMNAS”) accepted the membership of the 23 Forums established by IUWASH, allowing them access to additional resources and support.

FKP (Customer Communication Forum) Book

All IUWASH experience on providing assistance to PDAM customer forums was documented in the book "Embracing Customers, Building Services, and Learning from Implementation of Customer Communication Forum in 23 PDAMs". In addition to documenting lessons learned, the book includes the 9-Step process for establishing PDAM Customer Communication Forums and was launched during the Indonesia Water and Wastewater Expo and Forum (IWWEF) in Jakarta on May 4, 2016. The event was attended by key stakeholders, including BPPSPAM, FORPAMNAS, several PDAMs, and representative Forum members. The enthusiasm of the audience at this capstone event indicates the potential for further work in this area.

Program WS-4: Raw Water/Climate Change Adaptation

Over the course of five years, IUWASH supported 21 PDAMs and local government agencies in implementing the *Climate Change Vulnerability Assessment and Adaptation Plan (CCVAAP)* programs. This begins with a *Climate Change Vulnerability Assessment (CCVA)*, focusing on the vulnerability of raw water sources used by each PDAM. Subsequently, during stakeholder consultation, an *Asset Risk Matrix (ARM)* analysis was performed to estimate hydro-meteorological risks facing these sources and related PDAM infrastructure. This resulted, for each location, in a *Climate Change Adaptation Plan (CCAP)* which identifies priority adaptation actions required to address risks identified from CCVA and ARM. The adaptation actions developed and agreed upon through stakeholder consultation were then integrated into PDAM and/or PEMDA planning and budgeting processes for implementation. The adaptation actions included physical works (such as the installation and maintenance of infiltration ponds like those constructed with CCFI assistance), local regulations on raw water resource protection, consultation of upstream-downstream stakeholders on water use and protection, or efficiency improvements within the PDAM's water supply system.

In the first year of IUWASH a CCVAAP Inception report was developed which outlined all the 7 steps set forth below. CCVAAP work was initially undertaken in 12 locations and, in year 3, the remaining 9 locations were added. In Central Java, Kabupaten Kudus joined as well, but because of internal problems within the PDAM, IUWASH decided to stop collaboration with Kabupaten Kudus on CCVAAP development, so that only the initial CCVA assessment and initial stakeholder consultation meeting were conducted.



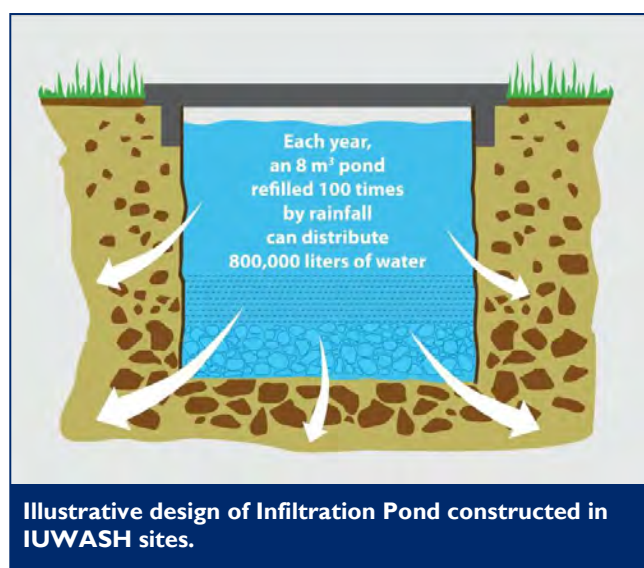
IUWASH

Staff of PDAM Takalar, South Sulawesi is receiving complaint and explaining the problem related to PDAM services to PDAM customer.

Step	Actions	Input	Outputs	VAAP Framework Phase
1. Initial site assessment	<ul style="list-style-type: none"> Engage PDAM and Local Government (LG) to determine need and commitment for CC VAAP Organize formal launch 	<ul style="list-style-type: none"> Meeting: Kickoff with PDAM 	<ul style="list-style-type: none"> Site Selected Process formally launched 	Phase 1: The Baseline Scenario
2. Baseline Study for Climate Change Vulnerability Assessment (CCVA)	<ul style="list-style-type: none"> Prepare Scope of Work for third party Tender Fixed Price Contract Implement CCVA Baseline Study Obtain stakeholder input on draft result 	<ul style="list-style-type: none"> Fixed price contract with university/ consultancy Workshop: socialization of Baseline Study Result (1 day) 	<ul style="list-style-type: none"> Stakeholder Consultations Approved CCVA Baseline Report 	
3. Asset Risk Matrix (ARM) Analysis	<ul style="list-style-type: none"> Review result of CCVA Baseline with PDAM and LG Evaluate natural/ built asset vulnerabilities under baseline and CC-driven scenarios Evaluate / prioritize adaptation options 	<ul style="list-style-type: none"> Workshop: Risk Assessment Planning with PDAM/LG Technical staff (2 days) 	<ul style="list-style-type: none"> Asset risk matrix compiled for targeted subsystems (consensus of hotspots) Short-list of adaptation options developed using multi-criteria analysis 	Phase 2: The Climate Change-Driven Scenario
4. Decision Maker Engagement	<ul style="list-style-type: none"> Discuss result of vulnerability assessment and confirm ARM hotspots Present short-list adaptation options Develop consensus on immediate next steps (Action Plan) 	<ul style="list-style-type: none"> Serial Meetings: Roadshow to PDAM/LG decision makers 	<ul style="list-style-type: none"> Six-Month Action Plan to implement one or more adaptation actions 	Phase 3: Adaptation Planning
5. Synthesize VA&AP Process	<ul style="list-style-type: none"> Integrate results of Baseline Study, PDAM/LG Technical staff inputs and decision-maker engagement into one document 	<ul style="list-style-type: none"> Short-term technical assistance 	CCVA&AP Summary Report	Phase 4: Implementation, Integration & Learning
6. Implementation of Adaptation Measures	<ul style="list-style-type: none"> Support PDAM to implement measures under its control Advocate for new policies and financing Monitoring/Evaluation of measures and adjustment as needed 	<ul style="list-style-type: none"> Technical Assistance In-kind support 	<ul style="list-style-type: none"> At least one adaptation measure under implementation 	
7. Integration into PDAM/LG Planning Processes	<ul style="list-style-type: none"> Work with PDAM/LG managers to include result into planning and budgeting processes Monitor and evaluate resilience impact 	<ul style="list-style-type: none"> Technical Assistance 	<ul style="list-style-type: none"> CC adaptation integrated into PDAM/LG planning and evaluation document 	

The development and use of GIS mapping for the stakeholder consultation and ARM analysis was very successful, because it clearly shows the problems of the different PDAM water sources / infrastructure and issues related to catchment area, potential for flooding, landslides, etc.

Regarding actions undertaken in response to identified threats, the most prominent during IUWASH has been the promotion, development and construction of over 3,770 infiltration ponds (“Sumur Resepan”) with a volume of 8m³ each. In collaboration with Coca Cola Foundation Indonesia (CCFI), a total of 3,334 SR were built in six locations: Sibolangit and Pematang Siantar (in North Sumatra), Kab Mojokerto and Kab Malang (in East Java) and Kab Sematang and Kota Salatiga (in Central Java); CCFI continued construction of an additional 900 SR in Kab Magelang, for which



IUWASH provided some technical assistance, but this is not included in the official total posted by IUWASH as it is outside the program’s target area. With IUWASH resources, 307 SR were constructed as demonstration sites for local communities, the PEMDA and PDAM. Notably, these efforts have been replicated by several local partners through LG and PDAM budget allocations, mandated for replication in LG policies that require the construction of infiltration ponds in new housing developments, or replicated (with some IUWASH support) by other CSR programs such as Nestle in Kab. Probolinggo.

Other activities emanating from the process of developing an action plan included development and adoption of local policies on protection of key PDAM catchment areas or construction of infiltration ponds (Probolinggo, Salatiga) a response to climate change causing disturbance to ground water. Also in 6 locations technical studies (4) and small physical works (2) were undertaken to protect PDAM infrastructure (raw water intakes and treatment) from increased risk of flooding and landslides.

As the infiltration ponds are installed on land generally owned or controlled by a person or entity other than the PDAM or PEMDA, community engagement in siting, constructing, maintaining, and replicating of infiltration ponds is especially important. The Bismo and Watulumbang spring catchment areas upon which the PDAM of Kab Batang in Central Java relies provides a good example. Through a modest pilot project involving the construction of 160 infiltration ponds and a complementary tree planting activity:

- The PDAM collaborated with local communities to construct and monitor the impact of the infiltration ponds, measuring spring flow using an Ultrasonic Flow Meter in a transmission pipe, by a “V Notch” for the open channel, and by “surface loading” to measure overflow from the spring catchment structure. .
- The above and an evident increase in spring debit became an important element in garnering buy-in from the community, PDAM and PEMDA. This ultimately resulted in the completion and dissemination of a Perdes in the concerned villages regarding the maintenance of the infiltration ponds and related reforestation action in both villages. The Perdes was endorsed by the village administration and disseminated to the village communities.

Climate Change toolkit and training

To further build and improve stakeholders’ adaptive capacity to respond to climate change issues, IUWASH began in PY 4 with development of the *IUWASH Climate Change Adaptation Toolkit* which was also used as the basis for a comprehensive Climate Change Adaptation training program specifically designed around the VAAP approach. During PY5, this training was conducted nine (9) times for total of 210 participants from PDAMs, PEMDAs and other local and national stakeholders as shown below. Each training was conducted over a period of five (5) days and included a one day fieldtrip to a nearby raw water catchment, generally where IUWASH had supported one of more adaptation activities such as the construction of infiltration ponds. Training was implemented in following regions:

- North Sumatra Region 1 training (December 2015)
- South Sulawesi Region 2 trainings (December 2015 and January 2106)
- East Java Region 2 trainings (January 2016 and February 2016)
- Central Java Region 2 trainings (February 2016)
- West Java/ Banten Region 2 trainings (March 2016)

A particular issue which emerged during the training was the cross-boundary nature of water resources that required that adaptation actions be a collaborative and coordinated effort among multiple jurisdictions. In some cases, the training served to bring relevant parties together to build a common understanding of steps that should be taken.

The following tables provides a summary of progress under the WS-4 set of activities through IUWASH completion followed by a Table showing locations and numbers of Infiltration Ponds (Sumur Resapan):

Table 13: Summary IUWASH Achievement under WS-4.

Region	Location	Summary of achievement
North Sumatra	Kota Medan Kota Pematangsiantar Kota Sibolga	<ul style="list-style-type: none"> Implemented adaptation actions, either construction work, design, local policy, and/or other include: <ol style="list-style-type: none"> Provision and dissemination of regulation <i>Peraturan Bupati (PERBUP) Kabupaten Malang Number 8 Tahun 2015 on harvesting and capturing rain water and sustainability water resources, Peraturan Walikota (PERWAL) Probolinggo Number 11 tahun 2016 on Harvesting rain water and Peraturan Desa (PERDES) Patemon, Kabupaten Batang, Central Java</i> on Sumur Resapan (infiltration ponds). The other three locations in South Sulawesi are still pursuing for endorsement of local regulation. Completed studies on WTP/intake improvements for PDAM Kabupaten Sidrap, Kabupaten Jeneponto, Kabupaten Pinrang and Kota Parepare. 900 infiltration ponds program under collaboration with CCFI in Kab. Magelang, Central Java with 250 constructed and 650 still ongoing. Completed construction of intake/WTP modification works in Nagrak (Kab. Bandung) and Kalanganyar (Lebak). IUWASH completed Climate Change toolkit and training materials. Implemented 7 training programs on water supply VAAP (RAPI), i.e. : West Java/Jakarta and Banten 2 times, Central Java 2 times, East Java 2 times and South Sulawesi 1 time with participants from local governments (SKPD's), PDAM's, NGO's, CSR forums, and Nationals institutions (Bappenas).
West Java & Banten	Kab Bandung Kab Serang Kab Lebak	
Central Java	Kab. Semarang Kota Salatiga Kab. Batang	
East Java	Kota Probolinggo Kab. Probolinggo Kota Malang Kab. Malang Kota Batu Kab. Mojokerto	
South Sulawesi	Kota Parepare Kab. Pinrang Kab. Enrekang Kab. Sidrap Kab. Bantaeng Kab. Jeneponto	

Table 14: List of Infiltration Pond Constructed During IUWASH Period.

Region	Location	Source of Funding	Project Year	Number SR
North Sumatra	Sibolangit Area	CCFI	PY 2	473
	Pematang Siantar	IUWASH	PY 3	50
		CCFI	PY 3	241
WJDB	Kab. Serang	IUWASH	PY 6	11
		LG / BLH	PY 6	22
		PDAM	PY 6	2
		CSR/Modern Land	PY 6	5
Central Java	Kab. Semarang	CCFI	PY 5	732
	Kota Salatiga	CCFI	PY 5	188
	Kab. Batang	IUWASH	PY 5	160
	Kab. Mojokerto	CCFI	PY 4	900
East Java	Kab. Malang	CCFI	PY 5+6	800
		IUWASH	PY 5	50
		Nestle	PY 6	100
SSEI	Kota Batu	IUWASH	PY 5	25
	Kab. Bantaeng	IUWASH	PY 6	11
TOTAL				3770

Program WS-5: Microfinance

Micro finance for water supply seeks to improve access to WASH services for poor and low income households. In the case of water supply, the program finances the relatively high up-front cost for installing a PDAM piped connection (generally around IDR 1.5 million) and then pay the amount back through manageable monthly payments. IUWASH supported PDAMs in developing such microfinance programs through mobilizing internal funding or supporting the PDAM in collaborating with an interested financial institution (a national or local bank, cooperative or other such institution). Over the course of implementation, IUWASH microfinance programming involved 21 PDAMs and by end of IUWASH provided access to piped water to 16,971 households from 17 PDAMs.

The mobilization of internal PDAM resources to pre-finance the cost of new connection was supported by IUWASH in 10 locations. To do so, IUWASH reviewed planned new connections that would be supported and the PDAM's financial condition. If deemed feasible, this was followed by the development of proper standard operation procedures on microfinance administration and financial management. When allocations were made, IUWASH supported PDAM with promotion and marketing activities. This entailed a combination of formal and on-the-job training, as well as the development of basic promotional materials. In a couple of locations, IUWASH also supported a microfinance marketing agent for a limited time to boost program participation.

In locations where it was not possible to mobilize sufficient internal financing from the PDAM, IUWASH national and local teams facilitated the identification of outside financial institutions (a national bank, local bank and/or cooperative) to provide capital to the PDAM. Examples include: PDAM Langkat, which partnered with a cooperative maintained by PDAM staff; PDAM Maros, which obtained support from a Syariah-based cooperative; or the PDAMs of Serang, Surabaya and Sidoarjo, where relationships were established with Bank Rakyat Indonesia. IUWASH assisted in such areas as developing the cooperation agreement between the PDAM and outside financial institution, surveying potential customers, developing the form of agreement with customers, providing training on operational issues, and supporting marketing activities.

To broadly share the results of the IUWASH microfinance program, as well as those of other organizations (such as Water.Org), IUWASH organized a national microfinance workshop in March 2016 in close collaboration with BAPPENAS, the Ministry of Cooperatives and Small Business, Water.Org, and others. Because the IUWASH microfinance program also covers financing access to improved sanitation facilities, results and follow-up of this workshop can be found in the Sanitation Section.

Below is summary of activities and achievements in the IUWASH microfinance program as it pertains to water supply.

Table 15: Micro finance program for water supply in PDAM.

Region	Location	Financial Institution	Internal Funding PDAM	Local Government	Number connections
North Sumatra	Langkat	Koperasi	<input checked="" type="checkbox"/>	<input type="checkbox"/>	419
	Labuhan Batu	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	534
Sub Total North Sumatra					953
DKI, West Java and Banten	Karawang District	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0 *
	Serang District	BRI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	258
	Bekasi Kota	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2,147
Sub Total WJDB					2,405
Central Java	Kudus	BSM	<input type="checkbox"/>	<input type="checkbox"/>	635
	Kendal	BRI	<input type="checkbox"/>	<input type="checkbox"/>	28
	Semarang City	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	414
	Klaten District	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,889

Region	Location	Financial Institution	Internal Funding PDAM	Local Government	Number connections
	Sukoharjo District	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4,409
	Rembang Disctrict	PNPM, BMT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	679
Sub Total Central Java					8,504
East Java	Surabaya City	BRI	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	201
	Sidoarjo District	BRI	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0*
	Jombang District	Bank Jombang	<input checked="" type="checkbox"/>	Bappeda, DPRD Kab Jombang	0*
	Malang District	BRI	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0*
	Mojokerto District	BRI, Bank Jatim, BSM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3,434
Sub Total East Java					5,903
SSEI	Jenepono Disctrict	Koperasi Pasar	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	303
	Maros District	BMT/Koperasi Syariah	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	45
	Sidrap District	Koperasi Denas Bank Sulselbar	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	182
	Takalar District	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1388
	Pinrang District	Koperasi Denas	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	6
Sub Total SSEI					1,924
TOTAL					16,971

Note *: in 4 cities (Karawang, Sidoarjo, Jombang, Malang district) micro finance program were started and supported by IUWASH and ca. 1,000 connection have been made; however by end of IUWASH they could not be verified, in accordance to IUWASH PMP system, so are not included in the final report.

In addition to a lack of water production capacity or available capital in many PDAMs, outside financial institutions were often reluctant to participate due to a lack of trust in the PDAM or in the ability of households to pay back loans (especially as these are considered as “non-productive” loans and many households have limited collateral). In other cases, LGs were also difficult to persuade to support such programs through local development banks that they manage. Good examples of LG support included Jombang where PEDMA support was required to access Bank Jombang or in South Sulawesi where Bank Sulselbar became engaged following the local government’s encouragement.

As concerns the source of funds for PDAM microfinance programs, internal PDAM cash is still the main source, but banks and cooperatives also contributed substantially.

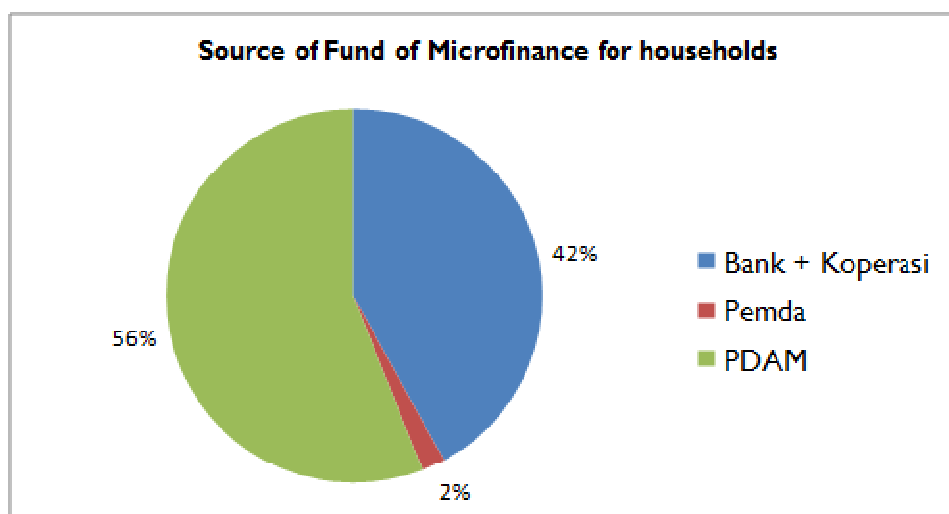
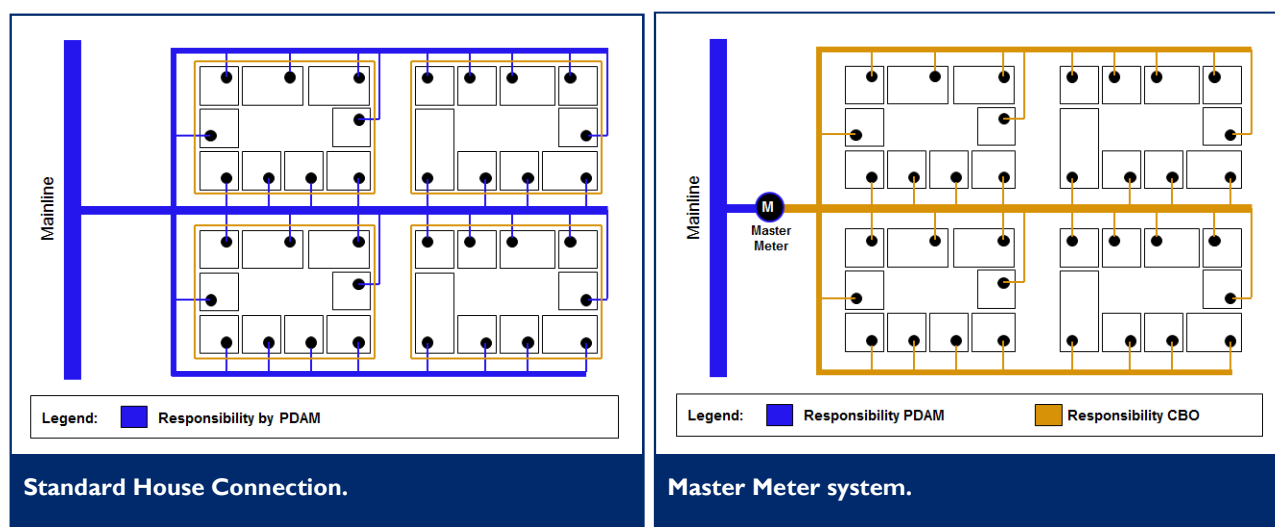


Figure 4: Source of Fund of Microfinance for household.

Program WS-6: Master Meter

Installation of Master Meter (MM) systems is one of two key IUWASH strategies to increase access of low-income families to piped water (microfinance being the other). With a MM system, a group of households have individual meter connections, but the network is connected to a PDAM bulk meter. In the community, a CBO manages the system, collects monthly tariff payments, and handles the operation and maintenance (O&M) of the MM system. Master Meter systems have proven very effective at lowering the per unit cost of water paid by the urban poor, while improving related health and economic status. PDAMs also benefit through easy billing (only one customer) and reduced water losses/theft, both because MM customers are no longer motivated to make illegal connections and the managing CBOs further serve in improving communications between the community and PDAM. The diagrams below show the difference between a system covered directly by a PDAM and one covered through a Master Meter.



The following is summary of main achievements in this program:

Three master meters systems in **Kota Sibolga** providing 143 connections were installed as a result of IUWASH support, which included: capacity building of CBOs and communities; facilitating the establishment of an agreement on the water tariff between the PDAM and CBO; as well as funding and overseeing installation of the first MM system as a demonstration site. The formal inauguration was presided over by the Mayor, USAID and IUWASH. After this initial site, Bank Sumut provided CSR funding of IDR 200 million serving 70 connections at Aek Parombunan, while IUWASH oversaw development of a DED and capacity building of a new CBO and the community. This was then followed by one more MM system for 32 customers at Simare-mare funded from the local government's budget.

In **Kab. Tangerang** 250 poor families are now connected to piped water through three (3)



IUWASH East Java

Ibu Risma, the Mayor of Kota Surabaya, accompanied by IUWASH DCOP and PDAM Director of Kota Surabaya is inaugurating the development of three Master Meter System in Surabaya by. The inauguration event was conducted in Legundi neighborhood. The system gives benefit to 259 households.

Master Meter systems. After completing the 3rd system, IUWASH provided refreshing training to CBOs in water meter reading and billing and collection management.

In **DKI Jakarta**, IUWASH started supporting PAM Jaya in PY 4 to increase piped water access for poor households, mainly in North Jakarta. During PY 5-6, MM systems were constructed in 7 locations: two (2) in Palyja area (Rawa Buaya for 48 hh and Telaga Bojong RT 02 for 20 hh) and 5 in AETRA's coverage area (in Pulau Gebang for 103 hh, Tanah Merah RW22 for 320 hh, Pelindo for 32 hh, Tanah Merah RW09 for 260 hh and Pademangan for 52 hh). IUWASH was responsible in all locations for the initial planning, community mobilization, CBO establishment, capacity building, development of DEDs and post-construction operation and maintenance training. Regarding the financing of the construction itself, a variety of funds were used: three (3) schemes were fully financed by IUWASH, two (2) by ADB and two (2) with 50% cost-sharing between local communities and IUWASH. For 6 locations, the construction not only covered the distribution network and house connections, but also a ground and roof tanks (with capacities between 5 and 20 m³) due to low water pressure during peak hours. For all locations, Palyja or AETRA provided the Master Meter and the piping to connect the Master Meter to their main network.

Five (5) Master Meter systems were developed in **Kota Surabaya** in PY 5 in four neighborhoods through the IUWASH grant program. After inauguration by the Mayor of Kota Surabaya in May 2015 (see picture), 260 households formally began benefiting from sufficient, clean water at affordable rates. After the systems were completed, IUWASH continued monitoring performance of all systems and also supported the development of a Forum of all CBOs charged with managing Master Meter systems.

In Sidoarjo, 4 MM systems were developed, including the expansion of a MM installed previously under ESP. Since this system has been operational already since 2008 and still runs satisfactorily (due to a highly committed CBO), it has been used as prime location for exchange visits by new CBO's in Jakarta, Tangerang and Surabaya. Table 16 below summarizes the progress under the IUWASH Master Meter Program.

Table 16: Summary of Progress of IUWASH Master Meter Program

Region	Location	Number of Connection	Number of MM systems	Summary Achievement
North Sumatra	Sibolga	143	3	Communities are served through 3 Master Meters (Jl. Benteng, Jl. Pelita, Jl. Kerinci).
		70	1	Replication of Master meter in Aek Tambunan funded by CSR Bank Sumut Rp 200 million. IUWASH supported CBO and technical advice
		32	1	Replication MM in Simare-mare funded by APBD. IUWASH supported technical aspect and set up KSM; capacity building KSM and communities.
WJDB	Kab Tangerang	250	3	3 master meters installed with PDAM, with piping financed by Dinas PU, and managed by 3 CBO. IUWASH supported to set up CBO, and conducted capacity building for CBO and communities, as well as DED.
	DKI Jaya	835	7	CBO setup at 7 areas serviced by Aetra (5) and Palyja(2); IUWASH arranged agreement on water tariff to customer, Capacity building of CBO and communities, DED, construction supervision and O&M training;
Central Java	Kota Surakarta	98	1	master meter is integrated in development of "Kampung Sanitasi"
East Java	Kab. Sidoarjo	342	4	communities served by 4 master meters financed through IUWASH grant; one (Lemah Putro) is often used for exchange visits

Region	Location	Number of Connection	Number of MM systems	Summary Achievement
	Surabaya	260	5	PDAM provided Master Meters and IUWASH financed community development and materials; communities contributed all labor; IUWASH facilitated establishment of CBO-Master Meter Communication Forum Surabaya

Key issues / lessons learned during the preparation and implementation of MM include the following:

(1) While it is understandable that local government and/or politicians may opt for a heavily subsidized tariff for MM serving poor households, it is actually not helping them. Experience shows that PDAMs will be less motivated to maintain a MM system and reluctant to promote its expansion if they are incurring financial losses. A tariff which, at a minimum, covers the basic operating cost of the PDAM is much better as it is still a much lower cost for poor families compared to their current water cost and, at the same time, creates enough incentive for the PDAM to maintain and promote MM systems. MM systems in Jakarta, Surabaya and Sidoarjo are evidence of the important role that tariff-setting has on MM system sustainability.

(2) Replication a MM systems, even within or between adjacent areas, is not easy, because every location is unique in terms of the legal status of inhabitants, landowner(s) involved, availability of water, presence of an existing “private water selling business”, etc. Therefore, every potential location needs to be examined thoroughly with all potential risks identified and addressed with all parties concerned before a decision can be made to build a MM system in a certain location.

(3) MM system development lends itself very well to different financing options, like cost-sharing between donors (IUWASH and ADB), cost-sharing between donors and communities (as in one location where the community paid all the piping and in another they constructed the ground-and roof tank) or through CSR (one additional MM is under development with funding from Unilever). Unfortunately, until now PEMDA or PDAM budgets cannot be used for construction of Master Meter systems, generally because of legal issues related to ownership of the assets, but hopefully this can be allowed in future programs as it will allow for more rapid replication.

(4) The construction cost of a MM system depends very much on three items:

- Number of households to be connected (average cost ca. IDR 1 million / connection)
- Length of main distribution pipe from Master Meter to all households (IDR 50 – 250 million)
- Need for ground- and roof tank for area’s with low water pressure (IDR 100 – 150 million)

A typical MM system serves 100 households and if a ground-roof tank is required, the total cost will be about IDR 300 million (or IDR 3 million per household)

Program WS-7: Capital Expenditure Financing

Program WS-7 focuses on increasing capital investments in water infrastructure to support the expansion of water and sanitation services. IUWASH supports PDAMs to access infrastructure financing from a variety of sources, including commercial financing institutions, private sector investors, or central and local government funds.

Over the past five years IUWASH provided technical assistance in planning and financing of 18 infrastructure projects across the priority provinces. This came in multiple forms, including development of project financial projections and feasibility studies, preparation of detailed engineering designs, advocacy/communication with government decision-makers, and facilitation of partnerships with financial institutions (like the Cibaja project in PDAM Serang). Of the 18 projects receiving support from IUWASH,

10 secured necessary funding and continued to the construction phase, while for 8 the final approval and funding allocation is still in process. It is worthy of note that the vast majority of financing for these projects ultimately came from two sources: private sector “business-to-business” partnerships and, more predominantly, public funds from APBD and APBN. Indeed, despite a strong initial interest potential funding under Presidential Decree 29/2009, no PDAMs working with IUWASH opted to access funding from this program. As described in an assessment of water sector financing completed by IUWASH in PY4, the protracted process and requirement to pledge local government revenue streams represented two key drivers in the waning interest of PDAMs in the PerPres.

Concerning capital expenditure financing support during PY6, our team continued assistance up to the closure of the program with highlights as follows:

- In North Sumatra, IUWASH supported GOI in the completion of FS and DED for the MEBIDANG regionalization project, a 2,200 liter per second facility serving the greater Medan metropolitan area. Also IUWASH conducted several coordination meetings with KFW (which will serve as the project’s primary financier) while also working closely with Public Works to obtain buy-in and financial support. According to the Director of DITSPAM (MPW), the project must proceed in 2017 given its designation as a priority infrastructure project: and
- During the final quarter, Kota Bekasi inaugurated 200 liter treatment plant in Teluk Buyung. Initially envisioned as a project funded by the private sector, the local government ultimately opted to finance its completion, with Rp.19.2 billion allocated in 2016 local budget (APBD).

Table 17 below provides the status of each capital expenditure project assisted by IUWASH through the project’s end.

Table 17: Status of Capital Expenditure Project in IUWASH Assisted Cities.

PDAM	Project Description	Remarks
Kota Tebing Tinggi North Sumatra	- 200 lps regionalization project (Tebing Tinggi and Serdang Bedagai) for 15,000 connections - Financing: APBN (for regionalization)	In process- Previously envisioned as PPP, PDAM is now pursuing funding from APBN under the regionalization program. Progress has been slow, since new PDAM director was in July 2015. Also a new approach to GOI will be needed to access regionalization funds provided by APBN.
	- 50 lps of Kutilang for 3.500 houses (40% of pro-poor houses). - Funding leveraged from APBD and APBN.	Final -Commenced technical assistance in early PY5 to all three projects by: reviewing the master plan (RISPAM), advocating local government and central government to provide financing, and facilitating a detailed engineering design (DED). As of QPR 17, construction is completed for all systems with water flowing into the piping network. Land acquisition funded through APBD and construction of assets through APBN.
Kabupaten Labuhan Batu, North Sumatera	- 40 lps WTP in Rantau Utara and 50 lps of Bilah Barat. Total connection 6.300 houses. - Funding leveraged from APBD and APBN.	Final - Construction works were completed and expanded service is underway.
Kota Tanjung Balai, North Sumatera	- 50 lps of WTP 5. Total connection 3.500 houses in sub-district of Pasar Baru. - Funding leveraged from APBD and APBN.	Final - Tender of construction is closed for completion end of April 2016 and construction is underway.
	- 100 lps WTP in Kelurahan Sirantau for 7,000 connections - Funding leveraged from APBD.	
Kota Binjai, North Sumatra	- 40 lps WTP in Marcapada for 3,200 connections, approximately 1.280 houses (40% of pro-poor houses). - Funding leveraged from APBN.	
Kota Medan North Sumatera	- MEBIDANG - 2000 lps of bulk water supply for 3 municipalities (Kota Medan, Kota Binjai dan Deli Serdang – regionalization of water supply.	In process - IUWASH provided FS, DED and facilitation of agreements among municipalities (KSB & PKS). Meeting with DitPSPAM in May

PDAM	Project Description	Remarks
	- Funding from APBN, APBD, KfW	2016 indicated approval was formally given including fund from central government and KfW.
Kota Bekasi West Java	- Bekasi Barat – Teluk Buyung: 200 lps production and distribution with 15.000 connections. - Source of financing: APBD	Final - Source of funding shifted from B2B to APBD. PEMDA issued approval for APBD (19M) for treatment plant that was allocated in 2015 budget. Construction commenced in March 2016.
	- Pondok Gede Project: 300 lps treatment plant and network with 20,000 connections - Anticipated financing: PPP(KPS)	In process - PDAM working with Bappenas has completed revising the FS and DED completed by IUWASH. Following step is PPP tender process.
Kab. Serang Banten	- Greenfield project for Ciruas/Cibaja of 80 lps with 24.000 connections. - Anticipated financing: bank and APBN	In process – Bank Jabar Banten has submitted formal intention to provide loan to PDAM amounting 8.7 billion with an additional 58 billion anticipated from APBD/APBN.
	- New Water Treatment Plant of 200 lps. - Project: B2B financing with STCK.	Final - IUWASH prepared the financial analysis for negotiation which was completely agreed by both parties in April 2014. The project remains under construction.
Kota Bogor, West Java	- New Water Treatment Plant, Katulampa Project of 600 lps. - Anticipated financing: APBD, APBN and PDAM.	In process – APBN to finance project 145 billion, APBD 54 billion and PDAM 2.5 billion. budget both for local and central government is in preparation.
Kota Surakarta Central Java	- 300 lps bulk water supply project improving service for 24.000 connections (6,400 new connections) - Source of financing: APBD and APBN.	In process – Cooperation agreement between PEMDA – GOI to fund project is in finalization stage. Fund from APBN 2016 for Rp. 20 billion for building treatment plant and reservoir and APBD Rp.10 billion already approved.
Kab. Gresik East Java	- 250 lps project, with new treatment plant and uprating of existing plant. - Financing: B2B with Drupadi Inc.	Final - Construction of both the new treatment plant and uprating of the existing plant completed. Facilities have commenced operation.
	- 1,000 lps of Sembayat Project (another 1,000 will be for industry). - Anticipated financing: B2B	In process - FS and tender documentation complete, but bidding process must wait until new regulation on B2B contracts is issued by GOI. Also it waits new bupati approval as well.
Ambon East Indonesia	- Waytona - 35 lps spring and treatment plant serving 6,000 households. - financing: APBN and APBD	Final - Construction of WTP and network completed Official take-over of the plant from central government to local government soon.
	- Wayheru spring - Rehabilitation of existing 20 lps spring and distribution line serving 2,000 households - financing: APBN and APBD	Final - Rehabilitation and main distribution network development funded by APBN is completed including tertiary piping to connect to customer.
Jayapura, East Indonesia	- 30 lps treatment facility serving 2,500 households - financing: APBN 2016	In process - IUWASH supported the completion of the DED for the plant, reservoir, and network. Project to be funded through APBN. The cost of the land is still under negotiation with owner.

Creditworthiness Ladder

IUWASH developed the Creditworthiness Ladder (CWL) as a financial assessment tool for water utilities, providing a snapshot of solvency as they look to obtain funds for new investments. IUWASH modeled the tool of off credit evaluation approaches both domestically and abroad, including through the engagement and inputs of PEFINDO, Indonesia's largest credit ratings firm. IUWASH also introduced the tool to national stakeholders and PDAM partners in through a national workshop as well as in each PDAM across the regions.

Notably, the CWL has been adopted and applied by other national stakeholders as a means to assess PDAM creditworthiness. The World Bank, for example, used the CWL as a means to map PDAM financial capacity in anticipation of the Indonesia Water and Sanitation Investment Facility (IWSIF), a program to help water utilities gain access to much needed capital investment financing. Additionally, BPPSPAM introduced the CWL in 2014 in its Growth Program for PDAMs that were planning to use alternative financing to support improvements. Also, in 2015 IUWASH continued improving the CWL in collaboration with BAPPENAS, making the tool available online through the NAWASIS web site. This model will allow the user to fill out the questionnaire directly on the NAWASIS web site and store the relevant information in the central government's data base system.

IUWASH used the CWL to evaluate the credit worthiness of PDAMs across the regions starting in 2011 (as base year of evaluation). The evaluation was conducted annually based upon the audited financial report of the PDAM and direct interviews with PDAM managers. From the total of 46 PDAMs assessed over the course of IUWASH, 21 demonstrated improved credit worthiness, five showed a decreased credit worthiness, while the remaining 20 PDAMs were stable. Detailed information on the final CWL result can be found in PMP Annex.

Support for New Financing Mechanism

With the many implementation constraints associated with Presidential Decree 29/2009, water utilities have continued to struggle to finance new infrastructure to meet public demand for piped water supply. As noted previously, during PY4 IUWASH supported an assessment of the existing sources of water infrastructure financing in order to better understand the evolving financing landscape. Based on the recommendations of the assessment, IUWASH began work in PY5 to support targeted improvements in the financing regulatory environment with the ultimate objective of a new or improved national guideline to facilitate access to capital financing (Outcome EE-6). In this regard, the project focused on two initiatives: guidelines for business-to-business (B2B) partnerships and the establishment of a centralized water fund.

Concerning the former, in conjunction with BPPSPAM, IUWASH planned to prepare a toolkit and accompanying guideline on the structuring and implementation of B2B arrangements in which a PDAM forms a direct partnership with a private sector company to build and/or operate new infrastructure. This toolkit and national guideline did not come to fruition, however, due largely to the Constitutional Court Ruling Number 85/PUU-XII that was issued in early 2015. Briefly, the ruling annulled Law 7/2004 on water resources management and reinstated Law 11/1974 as the guiding legislation for the water services. The cancellation of Law 7/2004 had a profound impact on the financing of capital projects in Indonesia, as it removed the legal basis for any relationship with the private sector, including the B2B financing option. As such, IUWASH elected not to proceed with the proposed toolkit and guideline.

Regarding the centralized water fund, IUWASH also envisioned supporting the establishment of a new funding vehicle called the Indonesia Water Supply and Sanitation Facility (IWSIF) which was to provide loans with terms tailored to the capacity of PDAM applicants. Initiated by the World Bank, the IWSIF was to be positioned under Government Financing Center (PIP) within the Ministry of Finance. Unfortunately, however, the PIP was dissolved under the new presidential administration, placing all plans for the IWSIF on hold indefinitely.

As a result of the above conditions, then, IUWASH was not able to facilitate the realization of a new national regulation on water sector capital financing, especially in light of the limited time left in the project.

Program WS-8: PDAM Institutional Support

The PDAM institutional support program assisted PDAMs to become more professional institutions that can broadly improve performance, thereby contributing to improved and sustainable access to water

supply services. Strengthening PDAM support included activities such as adjustments to a PDAM's organizational structure, the development of business plan, human resources development, capacity building for key stakeholders (DP, DPRD, Pemda), local government visioning workshops, programs supporting the regionalization of raw water management and holding PDAM "Clinics" to review issues of each PDAM in depth, but also in a group setting where the approaches and experience of other PDAMs can be very readily shared.

Strengthening PDAM internal structures

Strengthening PDAM management and operations has been critical for improving sustainable access to piped water. Over the past five years, IUWASH utilized multiple approaches to increase PDAM capacity, working with everyone from technical staff to senior management to supervisory boards in order to bolster utility performance. Specific examples of these approaches include:

- Short training courses for technical staff on key topics such as geographic information systems (GIS), energy efficiency improvement, business planning or project evaluation;
- Supervisory Board training for 136 members providing a comprehensive introduction to water supply system operations and management for board members, empowering them to better oversee the PDAM and advocate for political and financial support from the local government.
- Formal water supply management courses organized by YPTD, Training Foundation of PERPAMSI. Over the duration of the program, IUWASH supported the participation of 23 PDAMs in PERPAMSI courses, including 42 mid and senior level managers. (See Table 18 below);
- Visioning workshops to 40 municipalities across the regions, which briefed key local government stakeholders on the strengths, weaknesses, challenges, and opportunities facing each PDAM, as well as providing the district head a chance to set forth his/her vision for water supply services. Such workshops helped to develop a foundation for collaboration, with PDAMs such as Sukoharjo (Central Java) obtaining financial support for its improvement program; and
- On-the-job capacity building by collaboratively working with PDAM employees to, for example, implement a tariff adjustment, establish a new customer forum, or develop standard operating procedures (see further elaborated below);

Table 18: PDAM Participated in PERPAMSI Training: Water Supply Management.

Region	PDAM	Participant's Position	Training Level
North Sumatra	Kota Tebing Tinggi (2)	Kabag. Umum, Adm. dan Keuangan + Direktur	Madya / Utama
	Kab. Langkat (2)	Kasubag. Distribusi + Kabag Teknik	Madya
	Kab. Asahan	Kabag Umum, Adm dan Keuangan	
	Kab. Labuhan Batu	Kabag Teknik	
	Kota Sibolga	Kasubag Umum	
	Kota Tanjung Balai	Kabag Hubungan Langganan	
	Kota Binjai	Kabag Administrasi Keuangan	
West Java & Banten	Kab. Bandung	Kasubag Litbang	Madya
	Kota Bekasi	Kabag Hubungan Langganan	
	Kab. Bekasi	Kabag Perencanaan Teknik	
	Kab. Lebak (2)	Kabag. Pengoperasian + Kabag. Satuan Pengawas Intern	
	Kab. Purwakarta (2)	Kabag. Administrasi & Langganan + Kabag. Produksi	
Central Java	Kab. Sukoharjo	Kabag. Hubungan Langganan	Utama
	Kab. Rembang	PJS. Direktur	
	Kota Salatiga	Kasubag. Perencanaan dan Pengembangan	
	Kab. Batang	Kabag Teknik	
	Kab. Sukoharjo	Kabag Teknik	
	Kota Surakarta	Kepala Bidang Aset	
	Kota Mojokerto	Direktur	
East Java	Kab. Jombang	Sekretaris Umum	Utama
	Kab. Mojokerto	Direktur	
	Kota Batu	Direktur	

Region	PDAM	Participant's Position	Training Level
South Sulawesi and Eastern Indonesia	Kota Malang	Manajer Hubungan Pelanggan	Madya
	Kota Ambon	Kepala SPI	
	Kab. Pinrang	Plt. Direktur	
	Kab. Bantaeng (2)	Kabag. Teknik + Supervisor	
	Kab. Takalar	Kabag. Teknik	Utama
	Jenepono	Pjs. Direktur	Madya
	Jayapura (2)	Supervisor Hubungan Langgan + Wakil Direktur Bidang Teknik	
	Kab. Enrekang (2)	Kasie. Umum + Kabag Keuangan	Madya
	Kab. Bantaeng	Kabag Teknik	
	Kota Parepare (2)	Kabag. Umum & SDM + Supervisor	
Kab. Sidrap (2)	Kasubdit. Sarana & Prasarana + Staf Teknis/Pengelola Data Gis		

Regionalization of raw water sources and/or PDAMs

Many PDAMs face increasing difficulty in obtaining sufficient raw water to expand services. In some areas, raw water sources are situated in one administration regency (Kabupaten), but the main users are in a neighboring area (mostly Kota). This situation requires a joint approach on managing and safeguarding water resources, especially in the more water-stressed areas of Indonesia like Java.

The water resources “regionalization” program represents an important initiative by the Central Government to safeguard and more efficiently allocate finite raw water resources in the face of climate change. On the other hand, over several years, the number of PDAMs has grown from around 250 to more than 400, while service coverage, performance and financial viability are still low, meaning that many PDAMs operate very inefficiently. Therefore, the joint management and funding of raw water production facilities is often the most appropriate method to increase access to safe water. Despite the clear financial and operational advantages, however, discussions on PDAM regionalization often give rise to political objections. So while regionalization is crucial for improving PDAM performance, it needs to be approached with sensitivity and may not be feasible in all locations. Table 19 below summarizes IUWASH involvement in this field, with noted mixed success.

Table 19: Summary of Achievement on IUWASH Support to Regionalization Program

Region	PDAM
Tebing Tinggi North Sumatra	IUWASH completed a Pre-FS in 2013 to construct a bulk water treatment plant for Tebing Tinggi and neighboring Serdang Bedagai and report was submitted to Ministry of Public Works for funding in September 2013. However, due to some institutional objections as well as change of PDAM Tebing Tinggi's director in 2014 the negotiation process was delayed.
Medan, Binjai Deli Serdang North Sumatra	In mid-2015, IUWASH facilitating project to supply raw water to Medan-Binjai-Deli Serdang area (Mebidang), including a 2,100 liter per second bulk water facility, IUWASH conducted FS, DED, and institutional analysis. Project already obtained support from MPWH (to provide grant funding); Province of North Sumatra (purchase land for Rp. 100 billion in 2017 for); and KFW (German Development Agency as principal financier of infrastructure).
Bandung West Java	In PY-4, IUWASH worked with PT. Tirta Gemah Ripah (TGR), a provincial water supply company, to provide bulk water to Kota and Kab Bandung. IUWASH assisted TGR with financial analysis of the proposed bulk water system, including calculation of tariff that will be charged to each project off-taker. Discussion on next steps were delayed due to changes in management and priorities
Tangerang Banten	draft MOU for joint water supply service prepared by IUWASH and reviewed by both PEMDA
Semarang Salatiga Central Java	PDAM Kab Semarang, PDAM Kota Salatiga, and PDAB (Provincial Drinking Water Company) have agreed in principle to collaborate in a joint bulk water water treatment facility to be operated by PBAB; IUWASH conducted their-depth analysis of off-taker affordability (both PDAMs). By end of IUWASH program development is still being finalized between all parties

Development of clearer job descriptions and SOP

Based on the results of a performance audit by the BPKP, many PDAMs still cannot provide services that meet minimum service standards, related to water quality, continuity and quantity (referred to as the “3 K”) or operate efficiently. One of the reasons is that many PDAMs lack clear and specific Standard Operating Procedures (SOPs) for both technical and non-technical functions. In response, IUWASH provided support on SOP development for 16 PDAMs to improve operational efficiency. The SOPs consisted of technical, administrative, finance and customer relations procedures and can be summarized as follows:

- **North Sumatra:** IUWASH provided support on SOPs development for 6 PDAMs,
- **West Java and Banten:** SOP support for customer relation of PDAM Kab. Bekasi.
- **Central Java:** SOP development for PDAM Surakarta (126 SOP) and Rembang (53 SoP).
- **East Java:** IUWASH strengthened PDAM through development of SOP for PDAM Kab. Probolinggo, Jombang and Kota Mojokerto.
- **South Sulawesi and Eastern Indonesia:** development of SOP and advocated use of SOP by PDAM Supervisory Board in Sidrap, Pinrang, Jeneponto and Bantaeng.

Capacity Building for Stakeholders (DP, DPRD, Pemda)

Supervisory Boards (*Dewan Pengawas* or DP) play a critical role as a link between PDAM management and their LG owners. However, as many DP members were poorly prepared for their role, DP capacity building was viewed as a foundation for other PDAM institutional support activities. IUWASH implemented also training programs for DP members from all PDAMs partners in all IUWASH regions. The topics covered in the capacity building sessions included:

- (i) piped water service standards regulated by law;
- (ii) PDAM performance achievements and the main issues related to improving performance and coverage;
- (iii) the types of long-term financing available; (iv) the condition of raw water sources; and
- (iv) role and responsibilities of Supervisory Boards in supporting PDAM management (including in developing and implementing sound business plans).

In addition to improving knowledge of sector issues and the respective roles and responsibilities of the PDAMs and DP members, the training also allowed DP members from each PDAM an opportunity to develop a common understanding of the important challenges facing them, and to reach a consensus on key actions to take in the future.

PDAM Clinics and program development assistances for PDAMs in East Indonesia

Based on the results of a performance audit conducted by BPPSPAM in 2013, from 354 PDAMs audited, only 176 PDAMs are considered financially “healthy”, 103 have status of “less healthy”, and 74 are considered “sick”. PDAM which are “less healthy” and “sick” are generally found outside Java and often have less than 20,000 customers, resulting in management inefficiencies and a lack of financing to improve existing systems, let alone expand to new service areas. Other management inefficiencies relate to a lack of understanding of operational planning and the prioritization of high-value interventions to improve PDAM performance. In PY-6, IUWASH in cooperation with PERPAMSI and BPPSPAM provided assistance to improve the performance of 20 PDAMs in 4 Provinces in Eastern Indonesia (Maluku, North-Maluku, Papua and West-Papua), through an intensive “PDAM clinic program”. This program was implemented through two phases, each with a duration of one week (except for Papua which, due to a lack of time, only participated in the first phase). These phases consisted of:

- Phase 1: Identification of issues and preparation of the program,
- Phase 2: Presentation of the proposed improvements to PDAM Director's, the Supervisory Board and the Planning Agency for obtaining approval.

Assessment for Ten Million Connections Supporting Universal Access (100-0-100)

The RPJMN 2015 - 2019 sets a target of 100 percent access to safe water for piped and non-piped drinking water, and for which the GOI has provided a budget of IDR 80 trillion for PDAMs to add 10 million new connections. PDAM should develop realistic expansion programs to obtain this financing, and in response to an urgent request by PERPAMSI and Ministry of Public Works, IUWASH conducted a review of possible connections that could be added (referred to as a “mapping exercise”) for 170 PDAMs (all PDAMs in IUWASH regions) and PERPAMSI performed a similar review for another 230 PDAMs (in non-IUWASH regions). The methodology used for this exercise involved: (a) sending a form to PDAMs prepared by IUWASH and agreed by PERPAMSI and MPWH; (b) PDAM technical and financial staff completing the form; and (c) the verification of the data through direct meetings between IUWASH technical and financial experts and each PDAM. This data verification and finalizing process was conducted over 4 weeks, concurrently in the 5 IUWASH regions, with the data of 1-2 PDAMs verified each day. After all data was collected and verified, analysis was done by IUWASH National staff and results shared with PERPAMSI and MPWH. The average cost to obtain information and verify data from each PDAM was approximately IDR 10 million.

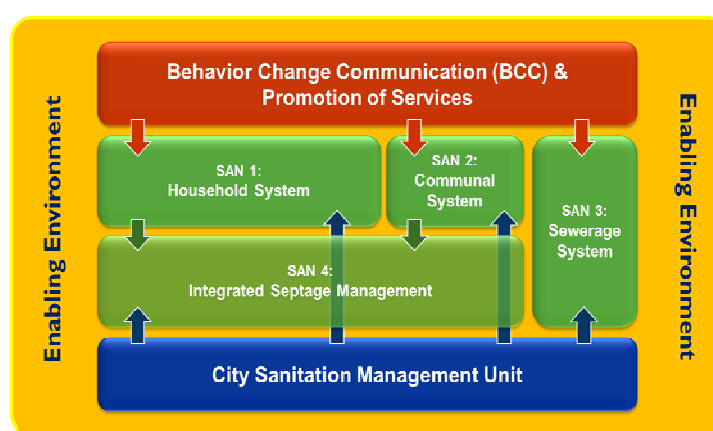
From the total of 421 registered PDAM, data was obtained from 372 PDAM (88.4%), in partnership with PERPAMSI. For the remaining 49 PDAMs (11.6%) reliable data was not available. The total current PDAM connections of the investigated 372 PDAM is 9,751,195 (December 2015). The 372 PDAMs together with IUWASH and PERPAMSI then identified a potential for 8 million new connections with an estimated investment cost of around IDR 80 trillion. However this number is only based on existing and new raw water source and market potential and not yet taking into account internal PDAM capacity to absorb that many connections, especially for the smaller, weaker PDAMs.

Section 2.3

SANITATION SECTOR

Introduction

A key objective of IUWASH sought to increase the number of people with access to improved sanitation facilities by 250,000 (or 50,000 households) in 54 participating local government jurisdictions. However, unlike the water sector where institutional responsibility is generally quite clear, the sanitation sector in most all partner municipalities at the time IUWASH began was characterized by a highly fragmented institutional setting, an under-developed policy and sector finance environment, as well as activities that were often driven by central-level budgets as opposed to genuine community-level demand. In response, IUWASH introduced the “Urban Wastewater Management Framework” (UWMF), a simple representation of the basic building blocks of any municipal wastewater management system that shows not only the building blocks themselves, but as importantly, how they need to work together in an integrated fashion. It further helps in underscoring the need for a specific unit or agency to be charged with ensuring the overall system properly functions. Informally referred to as the “SanBurger” due to its shape (see graphic), this framework is comprised of the following key elements:



- Orange: The enabling environment of planning, regulatory, financial, and institutional conditions;
- Red: Behavior change communication and community demand mobilization;
- Green: Key infrastructure and services as provided through improved individual household facilities (SAN-1); communal wastewater systems (SAN-2); centralized sewerage systems (SAN-3); and integrated urban septage management services (SAN-4) for servicing individual septic tanks and communal systems, including the safe collection, transport, disposal, and treatment of sludge and effluent; and
- Blue: The establishment of a distinct and effective wastewater operator, in charge of the delivery of citywide sanitation services.

Since midway through IUWASH, the framework has very much guided sanitation program development and, more importantly, it is now increasingly accepted as a tool in the planning of local sanitation programs by partner LGs as well as key national stakeholders, including Bappenas, MPWH, WSP, USDP, and others.

Main Achievements Sanitation Sector

This section summarizes the main achievements in sanitation during the IUWASH Project, arranged by signature approaches and other main achievements.

Signature Approaches

The IUWASH Project “signature approaches” are those innovative methodologies that were used as examples by the GOI and/or donor agencies and implemented through either direct assistance from IUWASH experts or subcontracted third parties. IUWASH implemented three signature approaches in the area of urban sanitation which are enumerated below accompanied by the associated achievements:

1. Demand Mobilization and Supply Chain Development

- Developed a publication entitled “Improving Lifestyle and Health – A Guide to Urban Sanitation Promotion” as well as a companion TOT, “promoter” training modules. These materials and the resultant training program were broadly adopted by MOH, MPWH and Bappenas and set forth an approach that goes well-beyond traditional behavior change interventions to include sanitation promotion and marketing, as well as development of the broader enabling environment.
- Supported MOH in the development of a STBM roadmap as well as the review and refinement of verification tools as promoted by the national level.
- Developed a range of supporting IEC materials, including videos, flip charts, posters, stickers, etc.
- Oversaw a process whereby the MOH adopted the above to address the specific needs of sanitation development in an urban setting.
- Implemented a TOT program for the above.
- Developed and rolled out a four-day training program for micro-level sanitation entrepreneurs, primarily those engaged in the construction of household septic systems. The training introduced construction approaches according to national (“SNI”) standards and further provided an orientation of such entrepreneurs in the urban sanitation promotion and related BCC programming.
- Worked closely with national and local stakeholders in the development of microfinance schemes to allow and enhance broad community access to new facilities. Work was undertaken with 23 local governments across the five IUWASH regions and in recognition that cost was often the principle barrier to household investment in improved sanitation systems.
- Conducted a study of the effectiveness of various types of household septic tanks to lead GOI partners in better understanding options for expanding the number of tanks considered as compliant with national standards (SNI).

2. Urban Wastewater Management Unit

- Developed in close collaboration with PPLP of the MPWH a seven-day UPTD training curriculum with 21 training modules, which is designed for building operational capacities of UPTDs at the LG level. Worked closely with MPWH in developing a plan to continue providing the above trainings through their training centers.
- Prepared a set of 19 Standard Operation Procedures (SOP) for UPTD staff training. The SOPs cover the areas of (i) general UPTD management and administration, (ii) HRD, (iii) asset operations, (iv) service promotion and customer management, and (v) revenue management.
- Published a five-volume ‘Urban Sanitation Toolkit’ that provides: (i) a general overview of the development approach of institutionalized service deliveries; (ii) detail on the principle areas of required LG engagement; (iii) detail on the process for developing a 5-year LG sanitation Road Map; (iv) key areas of consideration in LGs’s establishment of a supporting “enabling environment”; and (v) capacity development for the operator. The guideline was endorsed in 2016 by the Director General of Human Settlements of the MPWH.
- Worked closely with PPLP of MPWH in the drafting a local government regulation template (RanPerda) in support of the establishment of citywide wastewater management services.
- Successfully introduced the UWMF or “Sanburger” concept to 41 partner LGs with support especially focused on 18 LGs.

3. Improved Urban Septage Management

- Introduced programs for “improved urban septage management (IUSM) in close collaboration with WSP (Water and Sanitation Program of the World Bank) and the Directorate of Environmental Sanitation (PPLP) of the Ministry of Public Works and Housing.
- Provided focused TA on the operationalization of programs for the provision of regularly scheduled desludging services (Layanan Lumpur Tinja Terjadwal or LLTT) in six (6) IUWASH locations (Surakarta, Makassar, DKI-Jakarta Kota Bogor, Kota Malang and Kota Bekasi). In

Surakarta, Makassar and DKI-Jakarta it is already operational while in the other 3 cities it is in preparation.

- Coordinated the participation of LG and Central Government officials at a regional septage management conference in Vietnam.
- Worked closely with USAID/Prestasi as concerns their support of central and local government officials at two (2) septage management trainings in the Philippines.
- Developed a guide on Regular Desludging which outlines main steps in the establishment of regular desludging services.
- Worked with a centrally-funded USAID program (implemented by Montgomery Watson Harza) on the refinement of tools and approaches for and the training of national-level personnel in the appraisal and design of septage treatment facilities (“IPLTs”). The program involved the refinement and introduction of IPLT design software, the appraisal six (6) IPLTs to pilot related methodologies, the training of national consultants, and the development of a technical guide on IPLT design

Collaboration with other Parties

IUWASH’s ambitious targets could only be achieved through strong partnerships with key ministries, development partners, NGOs and the private sector. These collaborations took many forms, including joint workshops, regular information exchanges, study tours, and the development and alignment of approaches and the development of a common voice and concepts. Table 20 below summarizes collaboration of the current IUWASH program at national level.

Table 20: List of IUWASH Partnership Supported Sanitation Program at National Level

Partner	Summary of Activities
BAPPENAS	Providing a “donor mapping” system for integration into the NAWASIS website Review of “Minimum Service Standards” Collaboration on the development of a national microfinance concept Preparation and implementation support for various national events
Ministry of Public Works and Housing	Development of Urban Sanitation Toolkit Buku Saku and Flipchart SAN-1 and SAN-2 Standard Operation Procedures (SOP) fir UPTD training Comprehensive UPTD training curriculum Support for roll-out of ‘regular desludging’ (LLTT) Development of regulatory template (RanPerda) Support and assessment of USRI program
Ministry of Health	Regular exchange of progress and experience in urban STBM approach incl. micro-finance, as the key component on the supply chain Collaboration for developing Hygiene Behavior Change (BCC) promotion materials Support for implementation of national events (hand washing with soap, etc) Dissemination of the Urban Sanitation Framework and Urban Sanitation Promotion (UPS) approach Support towards the development of STBM Roadmap Review and finalization of STBM verification tools
Ministry of Home Affairs	Collaboration on UPTD structure and institutional development concepts Collaboration on regulatory development Engagement on SOP structure in support of UPTD capacity development
ADB	Exchange of materials and development concepts of city-wide WWM development Exchange of technical materials, incl. SOPs for UPTD operations Joint implementations of training needs assessments at local government level
World Bank-WSP & USDP	Collaboration on improved Urban Sludge Management Development of an OBA scheme for the national level Overseas study tours Review and development of guidelines on septage sludge treatment options Implementation of joint studies and workshops
DFAT/INDII	Collaboration on UPTD capacity building for 11 sAIIIG locations

Learning from Others: Reviewing First-Hand India’s WASH Programming Experience

While Indonesia has made significant strides in improving sanitation programming in recent years, this has not been in isolation, but has rather been part of a much broader international movement. This is partly captured by the MDG and subsequent SDG initiatives, but as well by the promulgation of programming approaches such as Community Led Total Sanitation and calls to end the practice of Open Defecation. While the push for better sanitation is global, one country with which Indonesia shares much in common is India, not only in terms of the challenges these countries face in increasing coverage, but also as concerns the strategies they are pursuing for community and private sector engagement.

The above was highlighted during the course of an exchange visit by USAID Indonesia and USAID/IUWASH staff to India which served as a counterpart to an earlier visit by USAID/India staff to Indonesia. During the course of the visit, Indonesian personnel were able to review Swachh Bharat, a national “Clean India” campaign (which is somewhat similar to the MOH-led STBM program), meet with representatives of the Ministry of Urban Development (MUD) which is a key USAID partner in engaging public and private sector leadership to generate solutions to WASH challenges, Other community visits sponsored by the Center for Urban and Regional Excellence (CURE) which seeks to connect unserved urban areas to water and sanitation infrastructure, as well as the discussions with the Urban WASH Alliance which seeks to improve access to WASH services in stressed urban areas through public private-partnership within which Coca-Cola is a prominent partner (as it has been in Indonesia under IUWASH).

In addition to improving understanding of the common challenges faced and responses pursued by each country, the visit also provided participants with concrete ideas for improving national WASH communications approaches, as well as private sector engagement that can be expected to bear much fruit in the years ahead.

Program SAN-I: Access to Improved Sanitation through Individual Household Systems

While San-I represents one outcome area, the range of activities that contribute to related achievements is generally vast. The following provides detail on overall achievements, as well as on the main areas of activity that led to such achievements. These areas include the development of an “urban STBM” approach, BCC and SME development, and microfinance for sanitation.

Summary of Achievements

During the course of IUWASH, a total of 26,221 households (or about 131,105 people) obtained access to improved household sanitation facilities as a direct result of IUWASH interventions which were undertaken in close collaboration with partner LGs and a range of associated stakeholders, including: PNPM Mandiri, local finance institutions/banks, cooperatives, and sanitation entrepreneurs. National key activities, in support of the achievements in the five IUWASH regions are outlined in Table 21 below.

Table 21: Summary of Achievements of Individual Household Systems (SAN-I).

No	Location	Type of IUWASH Support	Partners
I	North Sumatra		
I.1	Kota Medan	IUWASH worked with Perkim and its contractor to construct fibreglass septic tanks in several neighborhoods in Belawan areas. IUWASH collaborated with SMI/NGO Grantee to support with the community-based septage management system	Perkim Kota Medan & SMI
I.2	Kota T. Tinggi	IUWASH assigned YAKMI and collaborates with community groups, sanitarian, Bank Sumut, PNPM Mandiri, Credit Unions for triggering demand and for promoting standardized septic tanks. By the enf of IUWASH, the real connection in Pematang Siantar	YAKMI
I.3	Kota P. Siantar		PNPM
			CU Mandiri & Saroha

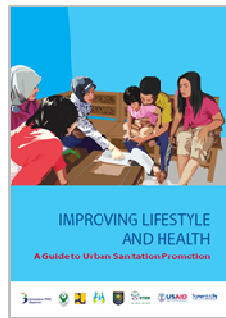
No	Location	Type of IUWASH Support	Partners
		could not be verified.	
1.4	Kota Sibolga	IUWASH worked with Bappeda and Dinas PU to construct 30 fibreglass septic tanks in several neighborhoods of 2 Kelurahan Simare-mare and Sibolga Ilir.	Bappeda and Dinas PU
2	WJDB		
2.1	Kota Bogor	Supported DINKES for sanitation promotion and demand triggering	DINKES
2.2	Kota Bekasi		DINKES
2.3	Kab. Bekasi	Collaborated with multiple stakeholders in promoting and providing access to Jamban Sehat and financing options	DINKES
2.4	Kab. Bandung		BPR Kertaraharja
2.5	Kab. Serang		DIM
2.6	Kab. Lebak		DIM
2.7	Kab. Tangerang	Collaborated with Water.Org and local cooperative in providing fiber septic tank for the community	KPP/BMI Syariah, DINKES, Water.Org, DIM
2.8	DKI – Jakarta	Strengthened local desludging service to assure sustainability of services	STTA & Mercy Corps
3	Central Java		
3.1	Kota Semarang	IUWASH collaborated with Government's PNPM program in promoting Jamban Sehat and standardized septic tanks to low income communities. IUWASH played a major role in creating demand and establishing the supply chain in support of these activities	PNPM
3.2	Kota Surakarta		PNPM
3.3	Kab. Kudus		PNPM
3.4	Kab. Kendal		PNPM
3.5	Kab Semarang		PNPM
3.6	Kota Salatiga		PNPM
3.7	Kab. Rembang		PNPM
3.8	Kab. Sukoharjo		PNPM
3.9	Kab. Klaten		PNPM
3.10	Kab. Batang		PNPM
4	East Java		
4.1	Kab. Sidoarjo	IUWASH mobilized demand and supports the establishment of the supply chain in close cooperation with LG agencies (Bappenas, DINKES, PU), private sector (finance institutions such as cooperatives and banks) and local suppliers (ITS, SMEs)	ITS, SME
4.2	Kota Surabaya		DINKES
4.3	Kab. Gresik		DINKES
4.4	Kab. Lamongan		ITS, SME
4.5	Kota Probolinggo		ITS, SME
4.6	Kab. Probolinggo		ITS, SME
4.7	Kota Mojokerto		ITS, SME
4.8	Kab. Mojokerto		ITS, SME
4.9	Kab. Jombang		ITS, SME, BPR
4.10	Kab. Malang		DINKES
4.11	Kota Batu		DINKES
5	SSEI		
5.1	Kab. Takalar	IUWASH supported DINKES in sanitation promotion and training of local SMEs and partners with financial institutions/cooperatives to provide financing	DINKES
5.2	Kab. Maros		DINKES
5.3	Kab. Jeneponto		DINKES
5.4	Kota Pare-Pare		DINKES & Kop. Aneka Jasa
5.5	Kab. Pinrang	Collaborated with DINKES to trigger demand and local cooperative and SMEs to provide community access to affordable Jamban Sehat	DINKES & Kop. Denas
5.6	Kab. Sidrap		DINKES & Kop. Denas

Urban STBM Approach

While the MOH has capably led and registered much success under the STBM program for years, it was fundamentally oriented towards rural areas, and IUWASH experience in its initial phase of implementation led to the conclusion that it required much adjustment to be applied in an urban setting. This is due to several factors, including the higher cost of sanitation infrastructure that is appropriate for urban areas, the greater difficulties encountered in community organization among urban dwellers, as well as the dependence of household or community-level sanitation infrastructure on much more robust institutions to manage such areas as the collection, safe transport and treatment of septage. In this light, IUWASH actively supported the Ministry of Health (MOH) in adjusting STBM strategies to the urban setting. This was consistent with a Ministerial decree issued in 2014 (Permenkes No. 3/2014) which sought to extend the STBM program more concertedly to urban areas.

The above led to the development, in close collaboration with the MOH, of an “Urban Sanitation Promotion Guide” (USP). The Guide addresses a wide range of areas that are unique to urban areas (factors motivating urban residents, cost of infrastructure, the need for a strong and supporting enabling environment, etc.). The Guide was endorsed by MOH, Bappenas, MOPW and the Ministry of Women Empowerment and Child Protection in 2015 and has since been widely disseminated during various national and regional events, such as Indonesia International Water Week in 2015, and a range of workshop and meetings with MOH, MOPW and many others (NGOs, private sector partners, universities, etc.). The Guide is now used as the basis for MOH-led trainings of urban-based sanitarians, field facilitators, community organizers and consultants.

As part of the dissemination process and to strengthen the capacity of relevant personnel (such as Health Department Sanitarians) IUWASH developed a 4-day Training of Trainers (ToT) module and conducted seven ToT events that were attended by 153



The Basics	Creating Demand	Ensuing Supply
Chapter 1: Introduction	Chapter 4: Community Entry and Data Collection	Chapter 8: Sanitation Entrepreneurs
Chapter 2: The Enabling Environment	Chapter 5: Community-Level Planning	Chapter 9: Sanitation Finance
Chapter 3: What Motivates People to Invest in Sanitation	Chapter 6: Community-Level Targeting	Chapter 10: Facility Use, Maintenance and Handwashing with
	Chapter 7: Household Level Promotion	Chapter 11: Monitoring and Evaluation

The USP Guide; outline of the guide and the step by step to build septic tank with up flow filter.

relevant staff from the MOH, LG departments, and other agencies (such as PKK and cooperatives). In several locations (such as Kota Probolinggo, Kab. Tangerang, and Banten Province), ToT participants then replicated the trainings using their own funding.

In support of the above urban approach to STBM implementations, IUWASH developed a wide range of IEC materials, including stickers, flipcharts, brochures and promotional videos. The materials were developed in close coordination with MOH and MOPW and were pretested in several communities to ensure the suitability of styles and messages. In addition to the promotion of new sanitation facilities, many of these materials are also geared towards support of other “STBM pillars” such as Handwashing with Soap (HWS). These were catalogued for the Project’s Final Evaluation exercise and made readily available in either print or electronic format (on the project’s website, via YouTube or other).



In support of the above efforts, IUWASH further engaged with the country’s designated “Water and Sanitation Ambassador”, Ikke Nurjanah (a renowned Indonesian dangdut singer) who has since spoken eloquently of the challenges she herself faced in growing up in North Jakarta without proper sanitation facilities. In addition, IUWASH regularly supported the MOH in annually commemorating global Hand washing with Soap Day which also attracts support from NGOs, other donors, as well as multiple CSR programs (such as those of Unilever, Reckitt-Benkiser, etc.).



IUWASH on Global Handwashing with Soap Day 2015.

Specific IUWASH behavior change communication (BCC) activities were undertaken at the local level in close collaboration with local Health Departments through their networks of Health Posts and Health Centers. As there was much variance in the degree that such departments had been exposed to the STBM program, this often entailed introductory STBM training for sanitarians and other potential partners in selected target areas. Trainings were then followed by a series of demand triggering events and community activities. Based on the new urban approach to STBM as promulgated in the USP Guide discussed above, this placed greater emphasis of the role of improved sanitation in improving lifestyle (as opposed to uniquely relying on health messages) and also introduced some tactics for better accommodating the needs of urban dwellers as concerns community-based organization and mobilization.

While the above was generally very successful in garnering interest of community members to invest in improved sanitation, it also became apparent in the early stages of IUWASH implementation that such

work would not produce substantial results unless complemented by commensurate attention to two other areas of need: the training of local, small-scale construction contractors who could build septic systems in accordance with national standards (SNI) which are especially required in urban areas; and recognizing that the cost of constructing a proper septic tank remained a significant barrier for many households, the availability of microfinance to support household-level investment.

Sanitation Entrepreneurs

Regarding the first issue above, capable construction contractors, IUWASH worked to develop a simplified standardized training program to develop or improve the capacity of small-scale construction contractors. In part, this was based on an earlier training program that MOH developed with WSP assistance. IUWASH also involved APPSANI (an association that supports sanitation entrepreneurs). In addition to construction issues, the training provides guidance on business registration, financial management, sanitation promotion, gender issues and similar areas. Importantly, it also reviews the role of such contractors in relation to others involved in sanitation promotion and finance to better ensure that their activities are well-synchronized with those involved in these related endeavors. The training Guide was further supplemented by several other materials, including flip charts on construction techniques.

Urban Sanitation Promotion: IUWASH initiated and continued adapting an urban sanitation approach that went beyond behavior change communication and included sanitation promotion and marketing of “standardized” sanitation facilities for achieving the possible environmental protection.

Because of a lack of communication tools and guidelines for promoting urban sanitation, IUWASH started working with MOH, Bappenas, and MOPW for developing the “Urban Sanitation Promotion” (UPS) guideline. In the following IUWASH disseminated the UPS guide through a series of ToT events to 153 Urban Sanitation Promoters from 7 local governments, including representatives from MOH, local government (Dinas Kesehatan), sanitarian, PKK, cooperative and UPTD PAL.

The participants were initially not too enthusiastic with the training content, assuming that they are already familiar with the materials. However, after the first day of training, participants started to enjoy the curriculum and admitted that the theme is fun, interesting and very helpful. Testimonies: *“I wish IUWASH invited me for such training much earlier” – “IUWASH should engage more people and government official in this ToT events...” – “This type of training makes us engaged and feel like one team”.*

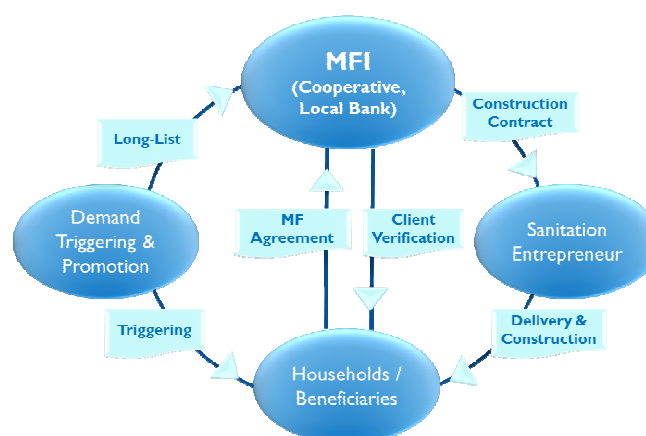
During the final “follow-up action planning” session, most of the participants committed to replicate the training by using their own local government funding. “This is like multi-level marketing (MLM), so I will call this “Sanitation MLM”, said Ibu Yuyun from Kabupaten Probolinggo.

Several weeks after the initial ToT events, alumnus shared with IUWASH that they have either replicated the training (e.g. Banten Province and Kabupaten Tangerang) and/or already implement sanitation promotion based on the USP guide. In Probolinggo the sanitarians continue promoting, what they now call “Sanitation MLM” by conducting USP training for PKK and Posyandu cadres.

Microfinance (MF)

As concerns the introduction of microfinance in sanitation promotion programming, this was done to improve the affordability of improved sanitation facilities which, in IUWASH’s experience as well as that of many others (such as WSP) was a major obstacle for many households in their desire to improve their own sanitation conditions. In response, IUWASH worked with 17 of its partner local governments to test various microfinance mechanisms that targeted middle to low income households. These mechanisms were typically implemented in partnership with locally-based microfinance institutions (MFIs) such as LG-owned banks, independent cooperatives, credit unions and, in some cases local sanitation entrepreneurs. In the process, several MFIs (or MFI programs) within larger institutions were engaged, including: BRI, Bank Sulselbar, Bank Syariah Mandiri, Bank Jombang, BPR Kabupaten Bandung (BPR Kerta Raharja), KPP Cooperative, Denas Cooperative, Koperasi Syariah BMI, and a Credit Union in North Sumatra.

Because the various institutions involved require different lending conditions (membership, collateral, etc.), IUWASH supported participating MFIs in developing appropriate loan products that would both meet their own conditions and respond to the clear demand expressed by community members. Importantly, when such products were developed, there was also a strong need for IUWASH to support the program in other areas, notably making sure that trained construction contractors were available to build the facilities and that promotion of the loan product could be effectively linked with broader sanitation promotion work of the LG (which is typically undertaken by sanitarians and other health department staff). This need for “synchronization” is pronounced and the interactions among stakeholders in a typical setting are shown in the accompanying graphic. As such, and beyond securing interest and support from MFIs, IUWASH’s foremost task was to foster networking between stakeholders and to build capacity wherever indicated.



The following table summarizes the schemes, associated stakeholders and results of IUWASH interventions in support of microfinance programming for the sanitation sector.

Table 22: Summary of IUWASH Intervention on Microfinance for Sanitation

Region	Location	Scheme of Implementation	Source of Funding
North Sumatra	Kota Medan*	Access to sanitation led by trained SMEs under techn. assist. by YAKMI (Grantee to IUWASH)	-
	Kab. Pematang Siantar*	Credit Union Saroha and Mandiri as the drivers in support of MF for access to sanitation in cooperation with trained SMEs	Credit Union
WJDB	Kab. Tangerang	Cooperative BMI leads the delivery of MF service to their members, collaborating with SMEs as construction partners in pursue of building 25,000 standardized facilities. BMI also launched san. saving for mobilization of capital	BMI Cooperative
	Serang	MF development by trained SMEs under technical assistance by DYM (IUWASH Grantee) and funding through local bank	BPR Serang
	Lebak		
	Kab. Bandung	LG provided working capital and BPR Kertarahardja in support of MF development. Implementation of scheme through local Health Department	LG of Kab. Bandung
	Kab. Bekasi	MF development was implemented by Dinas Kesehatan. The connections made through microfinance program was impacted from triggering activities to promote the Open Defecation Free conducted by sanitarians	LG of Kab. Bekasi
Central Java	Kota Semarang	SME Sehat Giga led MF development under direct IUWASH assistance	Sehat Giga
East Java	Kota Probolinggo	SME Wahana Tirta led the delivery of MF services through BRI support for working capital	Bank Rakyat Indonesia (BRI)

Region	Location	Scheme of Implementation	Source of Funding
	Kab. Probolinggo	SME Sigap Sanitarian led the delivery of MF service through BRI support for working capital	Bank Rakyat Indonesia (BRI)
	Kab. Mojokerto	SME New Vitex led the delivery of MF service through working capital support from from BRI and BSM	BRI and BSM (Bank Syariah Mandiri)
	Kab. Sidoarjo	SME Tiga Srikandi under assistances of LPPM ITS (IUWASH Grantee) led the delivery of MF services	Tiga Srikandi
	Kab. Jombang	Bank Jombang led the delivery of MF service through working capital support by the LG of Kab Jombang	LG Kab Jombang
	Kab. Gresik	Sanitation entrepreneurs implemented the microfinance program and supported by the <i>Dinas Kesehatan</i> .	LG of Kab. Gresik
	Kab. Lamongan	Hippams Banyu Urip and BRI implemented the microfinance program and supported by the <i>Dinas Kesehatan</i> . Sanitarians conducted the triggering activities to increase demand for improved sanitation facility through individual system	Hippams and BRI
	Kab. Malang	Sanitation entrepreneurs and SME Kube Krisna implemented the microfinance program and supported by the <i>Dinas Kesehatan</i> .	LG of Kab. Malang
	Kota Batu	Sanitation entrepreneurs implemented the microfinance program and supported by the <i>Dinas Kesehatan</i> .	LG of Kota Batu
	Kota Mojokerto	HAKLI (Himpunan Ahli Kesehatan Lingkungan), Sanitation entrepreneurs and local SME implemented the microfinance program and supported by the <i>Dinas Kesehatan</i> .	HAKLI and LG of Kota Mojokerto
	Kota Surabaya	Sanitation entrepreneurs under assistances of LPPM ITS (IUWASH Grantee) led the delivery of MF services	LPPM ITS
SSEI	Kab Jeneponto	Pasar Cooperative (Koppas) and SME led MF delivery service under IUWASH assistance	Pasar Cooperative (Koppas)
	Kab Takalar	Cooperative Sukma Kaya led the delivery of MF services under IUWASH assistances.	Sukma Kaya Cooperative
	Kab Pinrang	Coopertive Denas and the Reg. Dev, Bank (BPD Sulselbar) led the delivery of MF services	BPD Sulselbar and Denas Cooperative
	Kab. Sidrap		
	Kab. Pare-Pare	Coopertive Aneka Jasa led the delivery of MF services under IUWASH assistances	Aneka Jasa Cooperative
	Kab. Maros	Coopertive Mitra Mandiri led the delivery of MF services in cooperate with SME Sanitation	Mitra Mandiri Cooperative

*By the end of IUWASH, the connection could not be verified

As shown above, and throughout the course of IUWASH, microfinance support was developed in 17 participating local governments for the construction of pour-flush toilets and standardized septic tanks, reaching a total number of 6,369 households. The total estimated allocation of funds amounted to IDR 34 Billion. Importantly, it should be noted that the majority of these schemes are ongoing and that fund allocations are not yet exhausted.

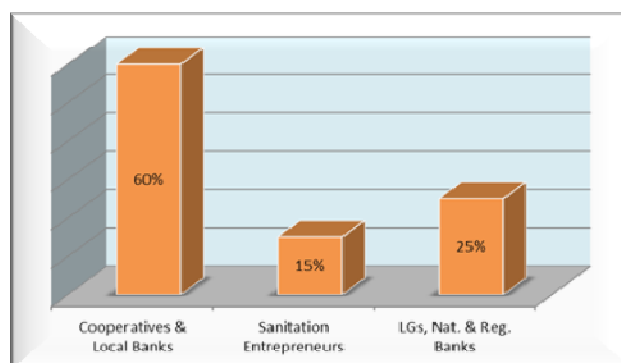


Figure 5: IUWASH Partners on the Program of Microfinance for Sanitation.

In terms of funding, cooperative and local banks supplied 4,173 household units or 60% of the total number achieved, while SMEs financed 1,043 units directly, and the remaining 1,739 household (about 25% of the total), were supported through local government or national/regional banks.

To further strengthen the micro financing for sanitation, the funding approach through cooperatives and local government banks seems to be the most viable scenario, considering the limitations of funding through sanitation entrepreneurs or external financial institutions.

In the final months of IUWASH, the program organized a national workshop to disseminate results and review possible next steps for scaling-up the initiative. This was conducted with key partners such as Bappenas, MOH, MPWH, the Ministry of Cooperatives and Small Business, Water.Org and others. Importantly, it also led to continued work by IUWASH in studying possible mechanisms for scaling up and which, it is hoped, will be carried forward in any follow-on program.

Cooperative BMI Kab. Tangerang. The success of the cooperative BMI in Kab. Tangerang is a lively demonstration of the positive impacts of IUWASH interventions at local government. Whilst the cooperative had a standing “save-before-credit” history, BMI only started realizing the potential of micro finance for the sanitation sector after an encounter with IUWASH staff in the year 2013.

The Cooperative BMI managed as a Grameen Bank model and has by now a >200,000 strong membership base and a funding capacity of about Rp 18 billion. Sanitation loans are provided to members as a secondary credit line. However, saving for sanitation was introduced to BMI members as a response to the newly established sanitation portfolio. Members repay loans through weekly installments and because of a high level of social control of active user groups (25 users for a user center) the level of loan repayments is almost 100%. Furthermore, the set-up allows for swift expansion of the member base.

Motivation and commitment of the Board of Cooperative Managers towards the social business aspects are very decisive for the success of BMI.

Program SAN-2: Access to Improved Sanitation through Communal Systems

Through MPWH, the GOI began investing in communal sanitation systems (locally known as SANIMAS) in 2003 and, to date, there are about 12,000 such systems built across the Indonesian urban landscape. Based on continued funding provided through IDB program and the GOI’s own special allocation fund (DAK), these are expected to reach 20,000 systems by 2019.

While the program has been on-going for some time, a focus on the construction of such systems led issues arising as concerns community buy-in to such systems, with many households not being willing to connect to the systems or take on a role in proper use and maintenance of the facilities. Moreover, many of these systems were built in the absence of an LG partner that could serve as a technical backstop to assist in resolving issues (technical or organizational) as they arose. In response to the above and based on requests from MPWH, IUWASH became heavily involved in supporting the program, especially those systems that were built with under the USRI program (funded by an ADB loan program) which was active between 2011 and 2015, and to a lesser extent, those constructed with GOI funding (under the SANIMAS/SLBM initiative). Table 23 below summarizes the types of support provided by IUWASH for communal sanitation system development which are broadly divided into “pre-construction” and “post-construction” activities.

Table 23: Type of IUWASH Support to Development of Communal Sanitation Systems

Pre-Construction	Post-Construction
<ul style="list-style-type: none"> IUWASH developed demand triggering and sanitation promotion and training modules which were used for TOT activities and training of facilitators. IUWASH supported demand triggering and sanitation promotion activities prior to construction to raise public awareness and willingness to invest or engage in sanitation improvement measures. IUWASH supported the strengthening and capacity building of local “change agents” who are in charge of sanitation promotion and technical implementations (SME, sanitarians, cadres, facilitators of and other stakeholders). IUWASH provided, from time to time, capacity building to improve the quality of design of communal systems. 	<ul style="list-style-type: none"> IUWASH provided advocacy to participating LGs for intensifying their attention towards communal sanitation. IUWASH is supported capacity building activities of community management groups (KSM) in charge of operation and maintenance of communal systems. IUWASH supported sanitation promotion activities to increase the utilization of existing communal facilities. IUWASH promoted the establishment of waste management units (UPTD) and their provision of oversight and technical support to KSMs for improving community services.

In support of the above at national level, IUWASH assisted in the development and implementation of a program for the training of master trainers (MT) and field facilitators (TFL) and participated in or supported a wide range of other trainings, consultations and other events that were typically organized by the MPWH. At the LG level, IUWASH also actively worked with local Public Works offices, and likewise directly worked at the community-level (and in the provinces of East Java, Central Java and South Sulawesi IUWASH engaged local NGOs to assist in this area). Work at this level was generally undertaken during the “post construction” phase with special emphasis placed on the formation and capacity building of community-based organizations (CBOs) that were charged with the operation and maintenance of the communal systems. A total of 576 members of CBOs received initial training and refresher training on topics such as behavior change communication, general management, bookkeeping, and technical operation and maintenance of the systems. A summary of assistance in provided in the following table:

Recognizing that there were a variety of issues arising during the course of IUWASH support, the program also organized and conducted an assessment of communal systems in that were constructed in East Java and Central Java in 2011-13. This assessment reviewed three (3): (i) functionality and utilization of the infrastructure; (ii) the capacity of CBOs to fulfill their assigned duties; and (iii) issues related to the beneficiary acceptance and support. The findings were presented and discussed with concerned LGs and the MPWH and generally revealed that, while 95% of the systems were technically sound and functional, only 61 % of the systems were appropriately managed by the related CBOs, and in terms of on-going finance, only 33% of CBOs collected regular monthly user fees



Field practice in TOT KPP for operational and maintenance of communal sanitation facility.



SANIMAS promotion of HCs by grass root organizations under the lead of UPTD Makassar.

from the beneficiaries, putting them at grave risk in the event of any important maintenance or repair requirement.

The above also underscored that, while success was clearly registered, more needed to be done both before and after the systems themselves were constructed. Important among the project's observations was that the overall initiative was initially driven by the availability of funding, as opposed to a genuine felt need among beneficiaries. Sites were often selected on the basis of land availability only or based on a perceived need to provide each municipality with an certain number of such units. In many cases this led to generally poor siting of the facilities that did not account for broader spatial planning, community risk factors, population density, accessibility, topography, and the integration of such systems into a broader future sewerage system. In many cases it also led to a general lack of interest or support on the part of intended beneficiaries. The Urban Wastewater Management Framework, the project's work in establishing LG wastewater management units, and the project's work in developing improved, urban-appropriate promotional programs were introduced in part in response to such issues.

UPTD Oversight: For enhancing the sustainability of communal operations, IUWASH introduce the concept of “oversight”, which is provided by the local government's wastewater operator (UPTD) to all formally established CSOs. Field observations indicate that communal systems function much more effectively in locations where the UPTD is available for advising community operators on technical, financial and marketing matters.

Good examples for such arrangements are Makassar and Gresik. The UPTD PAL Makassar has allocated resources and operates a data base for providing oversight and technical assistance to their 103 city-wide operating CSOs. The heart of the arrangement is the formation of a CSO association (AKSANSI) Makassar.

UPTD PAL Gresik established close collaboration with 104 established CSOs and formed a “CSO Forum” for promoting house connections in case of idle capacities, supporting operation and maintenance tasks, and regular desludging of the 104 treatment facilities. The forum communicates through “WhatsApp” and the UPTD conducts annual award ceremonies for rewarding the best performing CSOs.

Summary of Achievements

During the course of the current IUWASH program a total of 27,786 households (or about 138,930 people) acquired access to communal sanitation facilities as a result of IUWASH interventions and collaboration with SPBM USRI, SLBM-DAK, SANIMAS, and local government funded programs. National key activities, in support of the achievements in the five IUWASH regions are outlined as follows. Table 24 below provides a summary of regional interventions in support of community access to communal sanitation systems in 34 partnering IUWASH jurisdictions.

Table 24: Summary of Achievements of Communal Sanitation (SAN-2).

No	Location	Source of Funding	Year	Type of IUWASH Support
1	North Sumatra			
1.1	Medan	SANIMAS IDB	2015	<ul style="list-style-type: none"> TA & CB pre and post construction phase directly by NSRO team IDB SANIMAS implementation delayed
1.2	Tebing Tinggi	SANIMAS IDB, DAK, PLP BK	2016	
		IUWASH Grant	2012-2013	TA & CB pre and post construction phase directly by YAKMI (Grantee)
1.3	Tanjung Balai	IUWASH Grant	2012	<ul style="list-style-type: none"> TA & CB pre and post construction phase directly by NSRO team IDB SANIMAS implementation delayed
1.3	Binjai	SANIMAS IDB	2015	
1.4	Pematang Siantar	SANIMAS IDB	2015	
2	WJDB			
2.1	Kota Bogor	SANIMAS IDB, SLBM	2015	<ul style="list-style-type: none"> TA & CB pre and post construction phase directly by WJDB team IDB SANIMAS implementation delayed
2.2	Kota Bekasi	DAK SLBM	2015	
2.3	Kab Bekasi	DAK SLBM	2015	
2.4	Kab Purwakarta	DAK SLBM	2015	
2.5	Kab Bandung	DAK SLBM	2015	

No	Location	Source of Funding	Year	Type of IUWASH Support
2.6	Kab Serang	DAK SLBM,	2015	TA & CB pre and post construction phase directly by WJDB team
		IUWASH Grant		TA & CB pre, construction and post construction phase directly by YPCII (Grantee)
2.7	Kab Lebak	DAK SLBM	2015	TA & CB pre and post construction phase directly by WJDB team
2.8	Kab Tangerang	SANIMAS IDB, DAK	2015	<ul style="list-style-type: none"> TA & CB pre and post construction phase directly by WJDB team IDB SANIMAS implementation delayed TA & CB promotional activities directly by WJDB team Construction the facility by Sat-Ker MPWH
2.9	Kab Tangerang Sel	SANIMAS IDB, DAK	2015	
2.10	DKI Jakarta	SANIMAS IDB, DAK	2015	
		SANIMAS, DAK	2014	
3	Central Java			
3.1	Kota Semarang	SANIMAS USRI	2011-13	TA & CB pre- & post constr. phase through Grantee: SPEK HAM 2014-2015
		IUWASH Grant	2015	TA & CB pre, construction and post construction phase directly by Gita Pertiwi (Grantee)
3.2	Surakarta			TA & CB pre, construction and post construction phase directly by LPTP (Grantee)
3.3	Kab Kudus	SANIMAS USRI	2011-13	TA & CB pre- & post constr. phase through Grantee: SPEK HAM 2014-2015
		SANIMAS USRI	2011-13	
3.4	Kab. Kendal	IUWASH Grant	2014	TA & CB pre, construction and post construction phase directly by LPTP-CB-Tech (Grantee)
3.5	Kab Rembang	SANIMAS USRI	2011-13	TA & CB pre- & post constr. phase through Grantee: SPEK HAM 2014-2015
3.6	Kab Sukoharjo	SANIMAS USRI	2011-13	
3.7	Kab Klaten	SANIMAS USRI	2011-13	
4	East Java			
4.1	Kota Surabaya	SANIMAS USRI, DAK SLBM	2011-14	TA & CB post construction through Grantee: LPM ITS 2014-2015
4.2	Kab Gresik	SANIMAS USRI, DAK SLBM	2011-14	
4.3	Kab Jombang	SANIMAS USRI, DAK SLBM	2011-14	
4.4	Kab. Sidorajo	IUWASH Grant	2013	Rehabilitation and improvement of public toilet directly by SPECTRA (Grantee)
4.5	Kota Probolinggo	DAK SLBM	2011-14	TA & CB directly by EJRO team
		IUWASH Grant	2014	TA & CB pre, construction and post construction phase directly by LPPM-ITS (Grantee)
4.6	Kota Malang	SANIMAS USRI, DAK SLBM	2011-14	TA & CB post construction phase through Grantee: BEST 2014-2015
4.7	Kab Malang	SANIMAS USRI, DAK SLBM	2011-14	
4.8	Kota Batu	SANIMAS USRI, DAK SLBM	2011-14	
5	SSEI			
5.1	Kota Makassar	SANIMAS USRI, DAK	2011-14	TA & CB post construction through Grantee: Dwi Karya Mandiri 2014-2015
5.2	Kab Takalar	DAK SLBM	2010-13	
5.3	Kota Parepare	DAK SLBM	2010-13	
5.4	Kab Pinrang	DAK SLBM	2010-13	
5.5	Kab Sidrap	DAK/SLBM	2010-13	
5.6	Kab Bantaeng	DAK/SLBM	2010-13	
5.7	Kab Jenepono	DAK/SLBM	2010-13	

No	Location	Source of Funding	Year	Type of IUWASH Support
5.8	Ambon	DAK/SLBM	2012-2013	TA & CB directly by SSEI team
5.9	Jayapura	DAK/SLBM	2014	

Program SAN-3: Increased Sanitation Access through Off-site Sanitation

Within IUWASH, “San-3” represents off-site sanitation systems or, generally speaking, sewerage systems that collect and transport wastewater to a centralized treatment facility. Though there are much fewer of these types of systems in existence or under development in Indonesia, they nonetheless represent a growing For contributing to the long term sustainability of off-site/sewerage systems, IUWASH supported the implementation of community surveys, demand triggering, and sanitation promotion. Furthermore, IUWASH worked to strengthen the management capacities of existing wastewater operators in charge of sewerage. In a few cases IUWASH provided technical design support as a complimentary contribution to GOI construction budgets. IUWASH also supported LGs in obtaining central-level allocations (APBN) for expanding their customer either through the augmentation of their existing sewer systems (e.g. Medan) or the construction of new off-site facilities.

In addition, IUWASH worked in closely collaboration with the DFAT/INDII sponsored sAIG programs in eleven cities in support of pre-construction and post-construction activities, which included the implementation of community surveys, promotion campaigns, and support for the establishment and strengthening of local wastewater operators (UPTD). For demonstration purposes, IUWASH implemented with local authorities two “small scale sewer systems” (SSSS); one in Bekasi for 120 households and one in Jakarta (Karet Kuningan) for 200 households. Karet Kuningan represents an extension to the existing sewer system operated by PD PAL JAYA.

The following section outlines key work and results in the five IUWASH regions that were achieved during the past five years through close collaborations between the national and regional IUWASH teams and the respective partnering local governments. In most cases, PPLP of the Ministry of Public Works and Housing was actively involved in the decision making and budget allocation process.

North Sumatra: IUWASH provided substantial support for increasing the utilization of the existing sewerage system of Kota Medan, comprising program and budget advocacy, both with the Ministry of Public Works and Housing and the local government, which triggered APBN allocations in the amount IDR 45 Billion for a three-year sewer rehabilitation program (in the system’s zones 1 and 8), and APBD allocations of IDR 7.1 Billion for the construction of 3,000 new house connections through the end of 2016 by PDAM Tirda Nadi. For fostering the sustainability of sewerage services in Medan, IUWASH was instrumental for brokering in 2015 a formal agreement (Perjanjian Kerjasama) between the Ministry of Public Works and Housing, the Governor of North Sumatera, and the Mayor of Medan. The objective of the agreement is to define the roles and responsibilities of each party in the realization of a 5-year infrastructure development program, which includes regulatory, institutional, and monetary arrangements.

For the city of Tebing Tinggi, IUWASH provided a DED for a sAIG supported sewerage scheme with a capacity of 400 HCs for which construction was finalized in 2015. Funding was provided through APBN funding in the amount of IDR 3.7 Billion, complimented by APBD funding in the amount of IDR 500 Million for the construction of 365 HCs in Kel. Badak Bejuang. In parallel, the local government replicated the scheme for the Kel. Mandailing in 2014/15 with a budget allocation of about IDR 1.0 Billion for an additional 200 HCs.

For the city of Binjai IUWASH supported the preparation of DEDs for a Small Scale Sewerage System with a total capacity of 750 house connections. Funding was provided though APBN in the amount of IDR 6.3 Billion for the construction of the scheme with a complementary APBD budget of IDR 1.2 Billion for the

construction of house connections. Whereas the treatment plant and corresponding sewers were finalized in 2015, the installation of house connections remained on-going upon IUWASH completion.

In the City of Tanjung Balia and despite IUWASH and sAIG support, the LG was unable to finalize the development of a sewerage system for 400 HCs and for which the LG allocated IDR 3.6 Billion in 2014.

In addition to the above, IUWASH supported increased APBN budget allocations for the construction and/or rehabilitation of septage treatment facilities (IPLT) in the amount of IDR 3.7 Billion earmarked by Kota Medan for 2017, IDR 3.0 Billion each for rehabilitation works for Kota Sibolga and Kota Asahan during 2016, and IDR 4.0 Billion for a new IPLT for Kota Tebing Tinggi, earmarked for 2017.

West Java, DKI & Banten: IUWASH collaborated with DKI PD PAL Jaya for connecting households in Karet Kuningan to the existing sewer system. Works included household surveys, demand triggering and promotion, and the installation of the system that serves about 200 households through 93 service connections. A CBO was established that continuously triggers new connections and also works together with PD PAL JAYA for monthly customer billing and routine maintenance. The scheme was formally handed over to PD PAL JAYA in May 2016.

In Kota Bogor, IUWASH supported the preparation of a DED for the construction of household connections and a sewer crossing that resulted in 21 new HCs to the existing sewer system.

IUWASH supported Kab. Bandung with the preparation of a DED for the rehabilitation of an existing small-scale sewerage system in Soreang with a potential of 700 new HCs, 280 of which were made in 2015 and the remainder scheduled for 2016.

In Kab. Serang, IUWASH collaborated with sAIG in the promotion of 800 HCs for a newly constructed sewerage system which was completed in 2013. However, as the facilities were constructed by local contractors without any direct supervision, technical problems arose that impacted this promotional work and were eventually addressed by IUWASH in close collaboration with Dinas Tata Ruang, Bangunan dan Perumahan (DTRBP).

IUWASH worked closely with Kota Bekasi in support of the construction of a small-scale sewerage system with a potential capacity of 123 HCs. The program was implemented under the IUWASH grant program. Whereas the demand triggering campaign was very successful with a sign-up of about 95% of all potential households, the program achieved only 90 house connections because of some miss-management issues that led to early termination of the contract. Anyhow, the assets were handed over to the city administration and the newly established operator UPTD PAL allocated Rp 150 Million for installing the remaining house connections during 2016.

Central Java: The city administration of Surakarta built in Pucang Sawit and a new wastewater treatment facility and associated sewers with a capacity for 3,000 house connections, which was financed through APBN budget allocations. IUWASH was supporting the PDAM, in charge of the delivery of wastewater management services, and sAIG with the allocation of budgets for the construction of 1,000 new house connections and supported household level promotion and the calculation of cost recovering tariff structure.

IUWASH was collaboration with sAIG in Kab Sukoharjo for supporting the implementation of initial household surveys, demand assessments and community promotion for the newly constructed wastewater treatment facility in Gumpang (capacity: 250 HH) and Bondosari (capacity: 200 HH). Out of 450 installed house connections sAIG has verified the technical compliance for 249 connections.

East Java: Kab Gresik finalized sAIG supported sewerage schemes in three locations, including Karang Kiring, Dahanrejo, and Bunder Asri. IUWASH was providing support for the implementation of initial

household surveys, demand assessments and community promotion for an estimated potential of 1,200 households. Furthermore, IUWASH provided support for strengthening the local wastewater operator UPTD for managing the sAIIG systems with a future potential of about 3,000house connections.

IUWASH also provided support to the ongoing sAIIG program in Kab Probolinggo with the strengthening of local regulations and capacity building for the local wastewater operator UPTD for managing the sAIIG system with a potential of about 300 HCs. Dinas PUCK Probolinggo had allocated Rp 100 Million for 2015 in support of the implementation of training for health cadres on demand triggering, household level promotion, and monitoring of post-triggering activities.

SSEI: IUWASH worked with the city of Makassar for strengthening the operational capacities of the exiting UPTD in support of the operation of new sewerage systems, in particular community promotion campaigns for USRI and sAIIG. Community demand triggering for about 500 households was supported by the IUWASH Grantee SPEAK.

In Kab Maros, IUWASH also worked with the sAIIG program, supporting the promotion of 1,000 HCs through the IUWASH Grantee SPEAK and further supported the implementations of capacity building training of the operator UPTD on operation and maintenance requirements of the sewerage system.

For the city of Ambon IUWASH collaborated with the city administration for implementing initial household surveys, demand assessments, and preparation of a DED for the construction of a SAIIG system with a potential of 500 house connections in Kel. Nania and in Kel. Passo. The construction of the sewerage systems were finalized in 2015 and the associated house connection promotion program should be finalized by the end of 2016.

Summary of Achievements to Date

During the course of IUWASH, a total of 6,120 households (or about 30,600 people) gained access to city sewerage systems through the program's interventions and significant collaboration national and local government funded programs. Table 25 below summarizes key activities in support of this area of activity in the five IUWASH regions.

Fund Leveraging. Despite a wide SAN-3 portfolio that was implemented in 18 partnering local governments, comprising, amongst others: design support and verifications, technical guidance for local governments and capacity building for operators, community demand triggering and promotion of community access sewer systems, the triggering of national and local government budgets in the range of Rp 46 Billion is considered as a key success. The following table summarizes fund triggering as a direct impact of IUWASH interventions:

Location	Source of Funding	Amount of Funding	Scope
Tanjung Balai	APBN	Rp 4,0 Bio	SSSS
Medan	APBN	Rp 10 Bio	Rehab. of exist. sewer
Medan	APBN	Rp 5,0 Bio	Augmentation of IPLT
Sibolga	APBN	Rp 3,0 Bio	Rehab. of IPLT
Tebing Tinggi	APBN	Rp 4,0 Bio	New IPLT
Ashahan	APBN	Rp 3,0 Bio	Rehab. of IPLT
Tangerang	APBN	Rp 4,0 Bio	Rehab. of IPLT
Medan	APBD	Rp 8,0 Bio	HC
Binjay	APBD	Rp 0,4 Bio	HC
Tebing Tinggi	APBD	Rp 0,2 Bio	HC
Kab. Bandung	APBD	Rp 0,1 Bio	HC
Prov West Java	APBD	Rp 4,4 Bio	Sewer rehab. & HCs in Soreang
TOTAL		Rp 46,1 Billion	

Note:
SSSS = Small Scale Sewer System
HC = House Connection

Table 25: Summary of IUWASH support for Sewerage Systems.

Location		Type of IUWASH Support
North Sumatra		
1	Kota Medan	DED for rehabilitation of sewer and house connections, and support for marketing of new house connections (1,500 to existing sewer and 1,500 to new sAIG system)
2	Kota Tebing Tinggi	Survey and DED for sAIG system and promotion of house connections
3	Kota Binjai	Survey & DED for three sAIG system
4	Kota Tanjung Balai	Survey and DED for sAIG systems
West Java		
5	DKI PD PAL Jaya	HH survey, construction promotion of house connections (Karet Kuningan)
6	Kota Bogor	Preparation of a DED for house connections and a sewer pipe crossing
7	Kab. Bandung	DED for rehabilitation of existing small scale sewerage system in Soreang
8	Kab. Serang	Community promotion and household survey to connect to sAIG systems
9	Kota Bekasi	Pilot of Small Scale Sewerage System Kota Bekasi
Central Java		
10	Kota Surakarta	Support APBD budget allocation for construction of house connections
11	Kab. Sukoharjo	Household survey, demand assessment and promotion of house connections. Household survey, demand assessment and promotion of house connections
East Java		
12	Kota Malang	FS for rehabilitation of tertiary sewer and house connections of existing small scale sewerage system
13	Kab. Jombang	Assessment for rehabilitation/finalization of existing small scale sewerage systems
14	Kab. Gresik	Initially survey and demand assessment. Plan for new location in Randuagung in 2015
15	Kab. Probolinggo	IUWASH support for establishment of local regulation and strengthening of UPTD for managing sAIG system
South Sulawesi & East Indonesia		
16	Kota Makassar	Initially household survey, demand assessment and demand triggering in 2 locations
17	Kab. Maros	Initially household survey, demand assessment and demand triggering in 5 locations
18	Kota Ambon	DED and initially household survey, demand assessment and demand triggering in Kel. Nania - 2 locations (sAIG) & Kel. Passo (pilot IUWASH area)

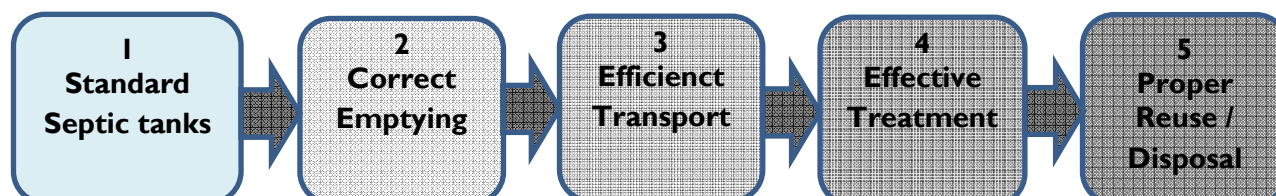
Program SAN-4: Improved Urban Septage Management (IUSM)

As the GOI has estimated that at least 85% of increased access to improved sanitation facilities will be in the form of individual sanitation system which requires proper septage management, the development of related services must be seen as a priority for all levels of government. If properly established and managed, IUSM significantly reduces contamination of groundwater and receiving water bodies and associated health risks, with all operating cost for collection and treatment covered by user fees.

In response, IUWASH has supported improved septage management services and especially the introduction of Regular Desludging services (Layanana Lumpur Tinja Terjadwal or “LLTT”) in several cities, including Surakarta, Makassar, Jakarta, Bogor, Malang and Bekasi. LLTT is a critical part of the sanitation

chain (shown below) and the bridge between proper septic tanks (step 1) and proper treatment (step 4 & 5). A LLTT system combines various components, including:

Technical	Emptying procedures; health and safety measures; fleet management;
Institutional	Professional operators; regulations, human resources, SOP, etc.;
Financial	Capital cost; operation cost; tariff ; billing system, etc.; and)
Promotion	Type of service; customer database; community engagement; complaint handling.



The following provides an overview of concrete activities in IUWASH cities as well as a summary of other supporting programs at National level promoting LLTT, in combination with improved operation and designs of Septage Treatment Plants (IPLT = Instalasi Pengelolaan Lumpur Tinja)

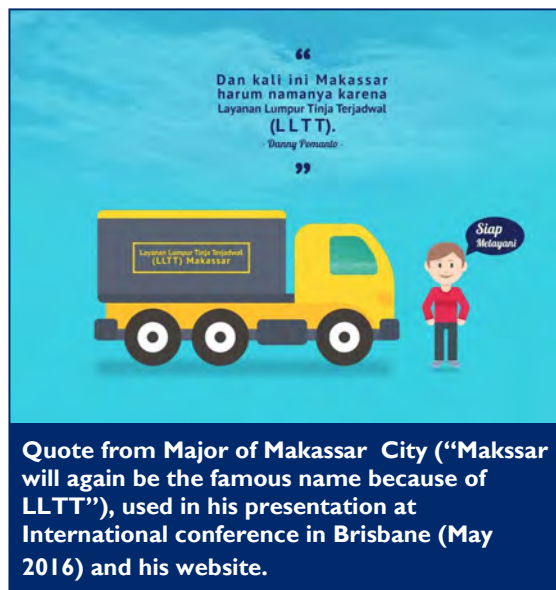
Summary of Achievements to Date

The LLTT program was introduced in 6 IUWASH locations (Kota Surakarta, Kota Makassar, DKI-Jakarta,, Kota Bogor, Kota Malang and Kota Bekasi). By the end of IUWASH, LLTT is in operation in Surakarta, Makassar and DKI-Jakarta, while in the other 3 cities it is in preparation (details can be found below) LLTT was also introduced to Gol, and by end of IUWASH is promoted by Gol (especially by MPWH and Bappenas) as a critical component of IUSM. MPWH already developed and published a LLTT guideline (2015) and in 2016 contracted local consultants to start promoting the LLTT concept, combined with improvements in IPLT operation in 40 cities across Indonesia. Details of IUWASH support to individual LGs is as follows:

- Kota Surakarta:** IUWASH introduced LLTT program for Solo since 2013, when all parties agreed that PDAM Solo is most appropriate LLTT operator. IUWASH supported the assessments, capacity building as well as households septic tank survey for all 41,244 PDAM customers. Result of the census showed that 86% have a functional septic tank and 75% of these can be accessed by desludging truck (what we called “sedotable”). IUWASH then supported PDAM in calculating the operating cost for collection (by private sector) and treatment (in IPLT) following with arranging formal agreement with 2 private operators to start regular desludging of PDAM customers. The service was formally launched in November 2015 by the Mayor of Solo together with USAID deputy mission director. IUWASH supported also the revising of the Waste Water Regulation, which includes the formalization of the tariff paid by the household on a monthly basis, and included in the Water bill from PDAM. Unfortunately since this Regulation was not yet signed by the local Parliament, houses are currently desludged on trial basis (including testing the MIS system using barcodes and GPS tracking); the citywide system will be operational as soon the Waste Water regulation is signed;
- DKI – PD PAL Jaya:** IUWASH started supporting PD PAL (the Waste Water operator for DKI) with the promotion of regular desludging in 2014; Initially this was trialed in three Kelurahan (Rawamangun, Pademangan Barat and Kemanggisan), where households census were done (covering over 10,000 households) in partnership with PKK (the local Womens Association), followed by intensive promotion and marketing campaigns by PD PAL staff using materials provided by IUWASH. MoU were signed in each Kelurahan with PD PAL, IUWASH and Kelurahan outlining roles and responsibilities of each party. Once the regular desludging started in these 3 Kelurahan, PD PAL requested IUWASH to support PD PAL staff with socialization and promotion of LLTT in Kelurahan Lenteng Agung; PD PAL team will then continue themselves with next group of Kelurahan including Kalideres, Pulo Gebang and

Duri Kesambi. IUWASH also supported PD PAL management with drafting a LLTT Business Plan, but because of changes in targets, budget and directors, this process took over one year and in the end a draft Plan was handed over to new PD PAL management, which includes the need for establishing a strong dedicated LLTT team as well as the additional Rp 70 billion (US\$ 5 million) that PD PAL received from DKI government for upgrading their 2 IPLT, prefinancing regular desludging and other critical activities; In 2016 IUWASH, in collaboration with MWH, conducted technical review of the 2 IPLTs (Pulo Gebang and Duri Kesambi) and provided recommendations for (immediate) renovations & designs for future expansions as well as provided training on IPLT operation combined with improved Health and Safety measures (equipment, procedures, reporting, etc)

- Kota Makassar:** LLTT is implemented by UPTD_PAL, as sole operator for all Waste Water programs in Makassar, including promotion of improved septage management, safe collection of septage from households and treatment in IPLT. Initially UPTD only operated an “on-call” system, and just waiting for household to contact them. Since IUWASH started they still continue that, but after also register the household as customer for a regular (3 year) service, which all households agreed. Customers are entered in a newly developed LLTT customer database, which is combined with a GIS mapping & MIS system for UPTD. Also the UPTD commenced pro-actively to promote LLTT in several housing estates, starting with household septic tank census (for over 10,000 households) and intensive promotion campaigns, using a mobile truck and promotional materials within the designated pilot areas. IUWASH conducted capacity building for developing a transparent payment and collection mechanism for LLTT by local KSM; to strengthen this process UPTD prepared a formal agreement with KSM, which was announced during the official launching of LLTT in August 2015, by Vice-Mayor in presence of USAID and MPWH. This approach is currently expanded to other housing estates. IUWASH also supported UPTD and PEMDA for completing local Waste Water regulation and revision of PERDA on service fee for regular desludging; Once this is finalized and signed, UPTD can also start applying LLTT for all Government offices, schools and other Public Facilities.
- Kota Bogor:** LLTT was initially introduced in 2014 with PEMDA and UPTD, in charge of the IPLT. During the initial assessments it became clear that for efficient future LLTT operation, PDAM Kota Bogor is most suitable operator, as they already have high coverage (80% of Kota Bogor) and can easily combine the (monthly) LLTT billing with current water bill. After presenting LLTT to Mayor of Bogor and obtaining his commitment to start, with PDAM as the future LLTT operator, IUWASH conducted a two day workshop with all local parties. Here a LLTT roadmap was agreed, including selection of first phase of desludging. A critical point identified was the IPLT (Tegal Gunding) capacity, which at this moment is large enough, because almost no trucks use it, but once LLTT starts will be insufficient. IUWASH then conducted technical IPLT review in 2016, with recommendations to both improve current operation as well as capacity expansion. Unfortunately in late 2015, internal conflicts PDAM Bogor led to the dismissal of the PDAM Director which put further development of LLTT steps (finalizing regulations, start first phase, promotion to PDAM customers, etc) on hold. It was agreed with all parties to restart the LLTT program for Bogor after a new PDAM Director is appointed.
- Kota Malang:** LLTT was started in 2015, first through participating in the LLTT workshop in Bogor and LLTT launching in Solo, which was then followed by serial meetings and discussions by IUWASH Regional and National teams. Together with local stakeholders, LLTT tariffs were calculated, using the



IUWASH modules. Also IUWASH consultant identified the current MIS systems used by PDAM Kota Malang, designated as LLTT operator. A septic tank census was conducted for 4,000 households as part of the preparation; Also IUWASH conducted technical review of the existing IPLT and concluded, with all local parties that it is not big enough; MPWH agreed to develop new IPLT (DED will be made 2016 and construction in 2017), while existing IPLT is still used.

- **Kota Bekasi:** In Kota Bekasi, IUWASH supported establishment of UPTD_PAL, which similarly to UPTD Makassar started to convert “on-call “ customers into LLTT customers. Under the leadership of a very charismatic UPTD Head and with full support of PEMDA and Mayor of Bekasi, they modernized their fleet of trucks, implemented proper Health and Safety measures and conduct intensive promotion for households business and government properties to improve septic tanks and join LLTT program. IUWASH, with help of MWH, supported technical review of existing IPLT and PEMDA allocated already IDR 13 billion (US\$ 1 million) to start IPLT renovating in 2016. IUWASH also supported computerized customer database linked to their GIS / MIS system.
- Besides the above 6 locations, IUWASH also introduced the concept of LLTT in Kota Medan, Kabupaten Gresik , Kabupaten Sidoarjo and Kota Jayapura, especially to PEMDA and the expected LLTT operators in each location (PDAM Medan and UPTD Gresik, Sidoarjo, Jayapura). All parties fully supported the need to implement LLTT in their cities agreed to start with the steps, outlines in the IUWASH guidebook (see below) in FY 2016/2017.

Exposure to IUSM by local and national stakeholders

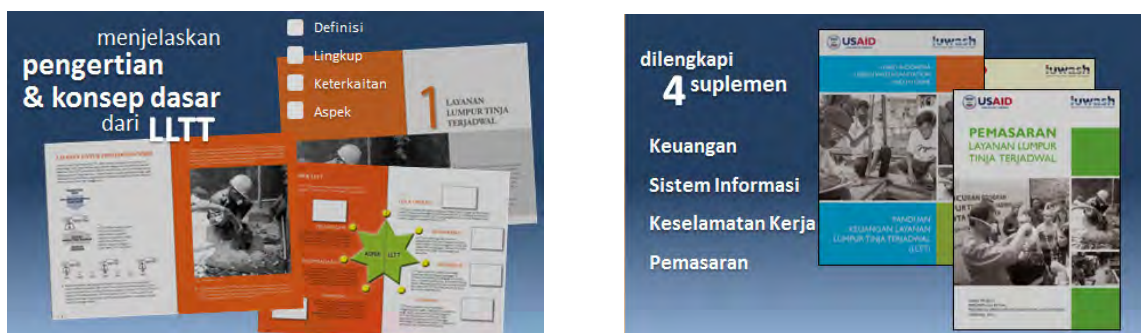
In support of the above, IUWASH, USAID/Prestasi and several other donor agencies (WSP, USDP, SNV) supported three (3) trips of Local and Central Government officials and operators to Vietnam (February 2015) and Philippines (May 2015 and April 2016) to expose them to improved Septage Management systems and approaches.

- **FSM-3:** In Vietnam 7 participants joined FSM-3, the Third International Fecal Sludge Management conference and were exposed to FSM experience from other countries, especially South-, South East Asia and Africa. In this conference they learned that (1) Indonesia is not the only country struggling with Septage Management (2) momentum in Indonesia to introduce IUSM is in general advanced over other countries and (3) just building more IPLT or buying more trucks is not the solution.
- **Study Tour Philippines.** In May 2015, IUWASH, and others supported a septage management study tour to the Philippines attended by 20 participants from MPWH, Bappenas, local operators of Jakarta, Surakarta, Balikpapan and Makassar, IUWASH, USDP, WSP, USAID Indonesia, SNV, and AKKOPSI. Participants visited 4 locations where LLTT is implemented and also were exposed to the Septage Management Toolkit under development by consultant team hired by USAID Washington. After returning to Indonesia, IUWASH conducted evaluation and follow up meeting and lessons learned provided valuable input for the further development of the large LLTT program in Indonesia.
- **Second Study Tour Philippines.** In April 2016 a second study tour was organized by IUWASH, PRESTASI and WSP for 26 Participants from Indonesia, with focus this time on promoting IUSM to senior officials of 6 participating cities (Kota Malang, Kota Makassar, Kota Bekasi, Kab Gresik, Kab Tabanan and Kota Balikpapan). Workshops with senior Philippine officials (including Mayors, Ministry officials) were combined with 2 fieldtrips to see modern IPLT (mechanized and semi-mechanized).

Sharing LLTT exposure and training materials

IUWASH developed a guidance book “Buku Pengembangan LLTT”, which outlines all steps to set up a LLTT system including Annexes outlining financial management (tariff calculation, billing systems, profit-loss accounts, etc) promotion and marketing (strategy, approach, materials, tools) Health and Safety requirements (equipment, procedures) and IT systems (android based septic tank census, customer

database, GIS/MIS system). The Guidance was completed in March 2016, launched during the IWWEF conference in May 2016 and used as basis for a LLTT training curriculum and subsequent training of 35 LLTT consultants (hired by MPWH) in April and May 2016;



The LLTT animation video (see Table 26) for general purpose as well as for four IUWASH cities was completed in 2015 and shared for further promoting of LLTT at National and city level. Software for android based application to conduct a septic tank census was developed in late 2015 and field testing was completed in early 2016 in DKI and Malang.

Table 26: Summary of links of LLTT animated videos.

Location		Type of IUWASH Support	Language
1	DKI Jakarta	https://www.youtube.com/watch?v=ooxdDYfjIK4	English
2	Kota Bogor	https://youtu.be/EaTMrk8tBII	Indonesian
3	Kota Malang	https://youtu.be/sdKuTXr_fQ0	Indonesian
4	Kota Medan	https://youtu.be/k_Sxv9VLQtU	Indonesian
5	Kota Makassar	https://youtu.be/p80ELAW9fnA	Indonesian

As a follow-on to the (ir-)regular meetings with WSP and PUPR, IUWASH initiated a regular LLTT coordination meeting involving MPWH, Bappenas, MoH, WSP, USDP and SNV. The first Coordinating meeting was held on December 7, 2015 and updates were provided by each program followed by discussion on critical issues, future activities, etc. A second meeting was hosted by WSP in February, followed 3th by USDP in late March and 4th by SNV in May 2016.

IUWASH collaboration under a USAID Washington Task Order

In addition to the above, IUWASH supported work conducted under a USAID/Washington Task Order (issued through the A&E IDIQ to Montgomery Watson Harza or MWH) and which involved development of a Septage Management Decision Support Tool (SMDST) specifically for use in Indonesia. Its aim was to help the user understand the approximate costs, staffing and other resources that will be required to manage a sustainable septage collection and treatment program. It has a simple user interface and a manual (both in Indonesian language) that makes it easy to understand and use. IUWASH provided critical inputs in the technical and finance components, arranged trials in IUWASH location (Kota Bekasi), conducted translations of user interface and manual and arranged launching during IWWEF 2016.

At the request of some local operators, IUWASH also worked closely with MWH to conduct technical reviews of 6 IPLT (2 in Jakarta, 2 in Malang, one in Bogor and one in Medan); Results and recommendations were shared with local stakeholders and used to (1) improve current operations (2) plan and budget for renovation existing 4 IPLT and/or (3) change design of 2 planned IPLT. The field observations during these reviews were also the basis for agreement between USAID (IUWASH and MWH) and MPWH to develop a technical guide on innovative designs of future IPLTs. A STTA hired by IUWASH started this in close communication with MWH expert team in February 2016 and the initial draft was used for a training for 15

consultants (hired by MPWH) on improving operation of existing IPLTs. A second draft is under preparation by IUWASH and MWH team and will be ready by end of IUWASH. This version will be discussed with MPWH and subsequently finalized under IUWASH+ and MPWH, in principle, already agreed to use this as basis for their future designs of IPLTs in Indonesia.

Program SAN-5: Establishment and Development of Wastewater Management Units

At the start of IUWASH, one of the key issues encountered in the sanitation sector was the unclear institutional setting within which sanitation interventions were taking place. This institutional setting was characterized by central government agencies trying to improve local sanitation conditions through large, centrally-funded initiatives, but LG partners that, at best, had only ad-hoc Water and Sanitation Working Groups (or “Pokja AMPLs”) in place to manage this support. Absent was one permanent institution at LG level, responsible for managing all the local sanitation (Waste Water) interventions (SAN-1 until SAN-4). This often created “disconnects” between plans and priorities at central level with priorities and capabilities at local level. Some of the observable insufficiencies at the local level included:

1. **Coverage and Quality of Service:** A lack of data on coverage and quality of domestic waste water treatment; a lack of “customer service”; poor maintenance and idle capacity of off-site systems; insufficient maintenance and idle capacity of septage treatment plants; a lack of support to established community based CSOs; and a lack of clarity on ownership of assets.
2. **Operator Service Delivery Capacity:** No clear service provider; a lack of accountability and planning for community services; no standard operating procedures (SOPs); a lack of qualified managers or technicians within the LG; insufficient health and safety procedures; and a lack of private sector engagement.
3. **Enabling Environment:** A lack of awareness in the LG as concerns their responsibility for wastewater management; an absence of wastewater management related regulation and oversight; a general lack of comprehensive and integrated service oriented planning; unclear institutional settings and interface.

In response to the above, IUWASH promoted three (3) key messages to prompt LGs to address the evident insufficiencies in sanitation programming, including:

- On the bases of law 23/2014, LG holds the sole responsibility for the provision of citywide wastewater management services;
- To fulfill this responsibility, LG should have in place an institutional entity to provide city-wide “one-door-service” to all levels of the community, directly or indirectly through collaboration with CBOs and/or the private sector; and
- Wastewater management should not be viewed as a long-term budgetary burden, but rather a public service that can and should be provided on a cost recovery basis.



UPTD-PAL staff in Gresik assist a communal sanitation CBO in the maintenance of its infrastructure.

To advance the above, IUWASH initially engaged with a limited set of LGs to examine the possibility of putting into place LG units that could take on an active and permanent role in this key development area. The initial target of 10 LGs, soon expanded to 34 LG requesting IUWASH support in establishing wastewater management operators, which indicates that the institutional deficiency was increasingly recognized as a major gap by IUWASH's own partners." For 30 locations, this was done by strengthening existing or establishing a new Technical Implementation Unit (UPTD-PAL) assigned to wastewater management, or in 4 other locations responsibility was given to the PDAM/PD PAL (as they were already financial healthy and have good coverage). The 34 locations can be divided in 3 groups, based on the development status, by end of IUWASH:

- 1) Revitalizing or strengthening 11 existing UPTDs (which were largely dormant)
- 2) Establishing 19 new UPTDs through direct IUWASH intervention;
- 3) integrating wastewater management services into 4 existing PDAMs/PD PAL

The above 34 locations are presented in the Table 27 below (highlighted in bold font are 16 prioritized locations by IUWASH based on perceived LG commitment):

Table 27: Status of Operator Development (UPTD and PDAM)

Region	Strengthening existing UPTDs	Newly established UPTD	Waster Water integrated with PDAM
North Sumatra <i>2 priority locations</i>		Kota T. Tinggi Kota Binjai Kota Tanjung Balai Kota Sibolga Kab. Asahan	Kota Medan
WJDB <i>3 priority locations</i>	Kota Bekasi Kota Bogor Kab. Tangerang Kab. Bekasi	Kab. Serang	DKI Jakarta
Central Java <i>2 priority locations</i>	Kab. Sukoharjo Kota Semarang Kota Salatiga	Kab. Batang Kab. Rembang	Kota Surakarta
East Java <i>4 priority locations</i>	Kota Probolinggo Kab. Jombang Kab. Probolinggo	Kab. Sidoarjo Kota Batu Kab. Gresik Kab. Mojokerto Kab. Lamongan	Kota Malang
SSEI <i>5 priority locations</i>	Kota Makasar	Kota Ambon Kota Jayapura Kab. Maros Kab. Pinrang Kota Parepare Kab. Bantaeng	

Note: Locations in bold, italics = Priority locations

IUWASH assistance to the above was broad and involved a range of activities designed to assist LGs in not only establishing wastewater management units, but also ensuring that they became genuinely operational.

This involved:

- Advocacy to local government for the drafting of supporting legislation, as well as for obtaining required budget allocations and staff;
- Facilitating the development of sanitation Road Maps;
- Development of Standard Operating Procedures and training of staff (curriculum with 21 modules);
- Supplementary training through horizontal learning and study tours (local and international);
- Development of marketing and promotional programs;

- Development of customer database and android applications; and
- Technical assistance in determining tariffs.

While specific materials and programs in support of all of the above were put into place, special mention can be made of the sanitation “Road Maps” which are essentially five-year plans that outline the strategies and key activities required for operationalizing wastewater management services.

These were not intended to replace the City Sanitation Strategy (of “SSK”), which generally focus on infrastructure requirements, while the Road Maps were developed to define in detail how best to operationalize such strategies and, importantly, ensure that local institutions are put into place to oversee longer-term sector development. These Road Maps were prepared by participating LGs with strong involvement from civil society (academia and NGOs, in particular) and were typically developed through a 3-day event. A total of 15 Road Maps were prepared and now serve as a primary reference for sector development in these LGs.

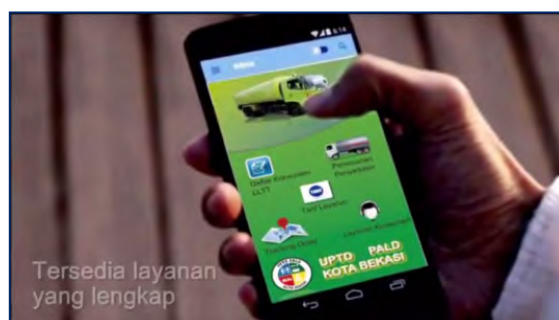


A vehicle of the UPTD-PAL of Makassar used in promotional events.

To monitoring progress of wastewater management unit establishment and operation, six areas of institutional development were identified as follows:

- Regulation in Support of UPTD Establishment
- Established UPTD Structure, Functions & Procedures
- Established UPTD Work plan and Operational Budget
- Hired initial UPTD Staff
- Established CB Plan for Prioritized UPTD Services
- Develop SOPs and Conducted Staff Training

In summary, of the 38 targeted UPTDs there are now 16 jurisdictions with fully operational UPTD-PAL, while many of the others have fulfilled requirements under most of the six areas of defined institutional development.



An Android-based application for the scheduling of desludging services developed for the UPTD-PAL of Bekasi.

For detail on individual LGs that have successfully established UPTDs-PAL or other a similar set of functions within PDAMs, please refer to the PMP Annex.

Out of the 15 prioritized UPTDs three “champion” UPTDs emerged during the past 2 years, comprising of Makassar, Gresik and Kota Bekasi. These three operators are outstanding for their service performance and customer orientation. The success in all three cases can clearly be attributed to the sensitivity and awareness of local government decision makers towards the importance of regulated sanitation services which created in each local government a conducive environment towards institutional development and budgetary support. Subsequently, the heads of the three UPTDs are extremely motivated and are striving for continuous improvements of service quality and expansion of service coverage. The local government of Makassar has already introduced an incentive scheme for rewarding the UPTD for outperforming annual service and fiscal targets.

As a result of their performance, more and more UPTD of other jurisdictions are now visiting these three champion locations for obtaining “hands-on” information and sharing of field experiences. These visits are contributing to effective and evidence based horizontal learning which is informing the sanitation development agenda of these visiting local governments and their operators.

Section 2.4

CROSS-CUTTING SECTOR

Cross-cutting activities are those that extend the project's reach beyond the households and communities that need improved services and the service providers that make them available. Generally, corresponding to the project's original Intermediate Result (IR) of creating enabling environment supporting equitable water and sanitation, these are designed to ensure that both demand mobilization efforts and water and sanitation improvements are sustained and can be scaled up to reach as many people as possible, especially the urban poor. Important aspects of this enabling environment and of what IUWASH defined as cross-cutting activities include: increased political and institutional support for policies that promote desired sector reform; increased access to financial resources needed to fund WASH services; improved advocacy for sector development through enhanced citizen engagement; heightened appreciation for the role of gender in ensuring equitable service delivery; as well as improved involvement of the private sector through the growing influence of CSR programming. Notably, while activities targeting the promotion of handwashing with soap (HWWS) had been among these cross-cutting areas in the project's first three years, based on recommendations emanating from the project's Mid-term Evaluation, these were eliminated as a separate area of activity and wrapped into the project's broader urban sanitation promotion initiative.

The following provides a summary of the project's five (5) Cross-Cutting areas and of the main achievements under each:

- **CC-1/ Increased PEMDA policies:** A total of 90 policies had been enacted in a total of 51 cities, including two (2) of which that were enacted in the project's final six months.
- **CC-2/ Increased APBD budgets:** IUWASH continued to conduct advocacy to LG partners regarding sector budget allocations, and by the end of the project, 51 LGs showed increased APBD allocations to support improvements in water supply and sanitation service delivery.
- **CC -3/ Citizen Engagement Mechanisms:** A total of 21 IUWASH-assisted cities developed or dramatically improved sector-relevant Citizen Engagement Mechanisms (CEMs). Typical CEM included: websites, radio programs, complaint handling units, and SMS Gateways.
- **CC -4/ Gender Mainstreaming:** Though absent specific targeted outcomes, IUWASH implemented Gender Responsive Planning and Budgeting (PPRGs) programs in five municipalities (Kota Tebing Tinggi, Kab, Malang, Kab. Jombang and Kab. Maros) with all having developed related GAP, GBS and SOW documents for the WASH sector. The project's work with PKK in sanitation programming in DKI Jakarta and Kab. Bandung also demonstrated solid progress.
- **CC -5/ Mobilizing CSR funding:** Though also in the absence of specific targeted outcomes, significant progress was made through the establishment of reinvigoration of local CSR Forums in six (6) municipalities, as well as through partnerships with the CSR programs of Coca-Cola Foundation Indonesia (CCFI) for the construction of 3,334 infiltration ponds (in Sibolangit, Pematang Siantar, Kab. Mojokerto, Kota Salatiga, Kab. Semarang and Kabupaten Malang) and with Nestle through which work on another 100 was also undertaken. The value of the CCFI alone was approximately US\$ 1 million.

The following sections provide more detail regarding the activities and main achievements under each of the five cross-cutting programs.

Program CC-1: Increased Number of Local Government Policies

The development and enforcement of appropriate sector policies at the local level is a key feature of the overall enabling environment upon which sustainable sector development depends, and this was further reinforced through National Law on local government (LG) responsibilities (refer to Undang-Undang No. 23, 2014). In the course of project implementation, IUWASH provided technical assistance to LGs on policy development through facilitating need assessments, gap analyses, the exchange of best practices, and

stakeholder dialogue to achieve consensus, draft policies, develop implementing regulations, as well as undertake policy socialization and launching processes. A central feature of the policy development process also involved conducting Visioning Workshops with each partner LG. As many LG leaders were generally unaware of the status of water supply and sanitation development in their respective jurisdictions and often had limited knowledge of the scope of their responsibility for sector development, Visioning Workshops provided an opportunity to review related issues in greater detail and, most importantly, secure clear commitment from LG leaders to make required changes.

Among a wide range of concerns with regard to policy development, two particular areas of emphasis included the development of regulations supporting the establishment of local wastewater management units (Outcome IC-8) and the development of policies to complement and reinforce the project's Climate Change adaptation work (Outcome IC-4). The project's East Java region was the first to reach the target of "One City, One Policy", and this was rapidly followed by North Sumatra, SSEI, WJDB and Central Java regions.

By the end of the project, IUWASH had facilitated the development of 126 local policies to address critical issues in the water supply and sanitation sector. Among these policies, 90 had been fully enacted. These policies covers several topics such as wastewater management, PDAM strengthening and equity, raw water protection, and the establishment of Citizen Engagement Mechanisms (CEMs). The project's total number and type of policies developed is summarized in the figure below.

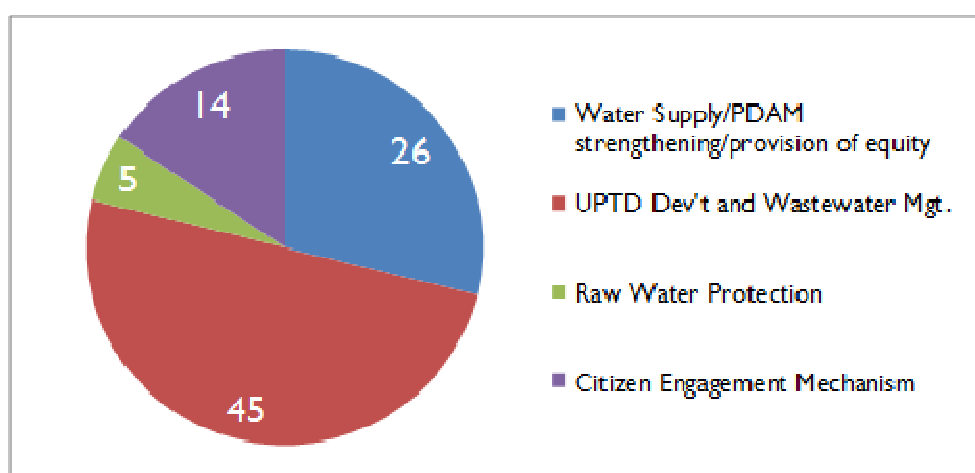


Figure 6: Types of Local Policies developed through IUWASH Assistance

Table 28 below summarizes IUWASH final achievements on policy development in each region.

Table 28: IUWASH Final Achievement on Policy Development

Region	Number of LGs with policies supporting WASH	Number of policies developed up to first quarter of PY 6 (Dec 2015)	Number of WASH policies developed in second quarter of PY 6	To-date achievement of policies development
North Sumatra	9	21	0	21
West Java & Banten	9	16	0	16
Central Java	9	19	1	20
East Java	11	18	0	18
South Sulawesi & East Indonesia	12	15	0	15
Total	50	89	1	90

Specifically for the last semester of the program period, and in addition to pursuing the completion of various policies, IUWASH regional teams were active in supporting LGs in policy dissemination / socialization and the development of related implementation plans. In addition to supporting the regional teams in these efforts, national staff also undertook, on a pilot basis, a Regulatory Impact Assessment (RIA) study to better understand how policies were being implemented and the impact they were having. Two regulations were selected for the review, namely a mayoral regulation in Kota Surakarta on septage management and a mayoral regulation in Kota Bekasi on Minimum Service Standards as they relate to PDAM Tirta Patriot. In addition to this work, the national team also developed a template for a local regulation on domestic wastewater management (in collaboration of the University of Technology in Sydney) which was subsequently included in the IUWASH Sanitation Toolkit.

Some observations regarding LG policy development for future consideration are that:

- Data in support of policy analysis (such as that used in cost-benefit analysis) is often in short supply and the level of analysis applied in the policy formulation is often limited. Improved data collection and the input of outside experts can substantially improve this key area.
- The process behind socialization and implementation is not automatic nor necessarily swift and requires much attention well-beyond its date of actual policy enactment.

Program CC-2: Increased Local Government Budget (APBD)

Increased local government (LG) budget allocations for the water and sanitation sector are fundamental to the expansion of access, particularly for low income households which are unable to support the development of such services on their own. The need for LGs to set aside resources for sector development is now even greater given the GOI’s target of achieving Universal Access to these services (100% coverage) by 2019.

During the final period of program implementation, IUWASH continued to support LG partners in sector budgeting through advocacy and technical assistance (such as through the development of detailed engineering designs). For instance, the “PDAM clinics” implemented in March and April in collaboration with PERPAMSI for PDAMs in Maluku and Papua, led to LG agreements in Ambon and Kabupaten Maluku Tenggara for additional financial support based on needs identified during the course of the clinics.

Regarding overall trends for LG resource allocations in support of water and sanitation over the course of IUWASH implementation, Figure 7 and 8 at

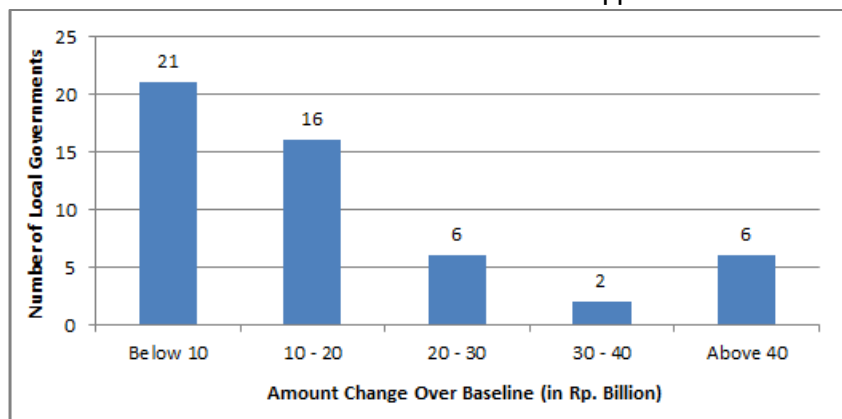


Figure 7: Change of WatSan Budget Allocation (Absolute Value).

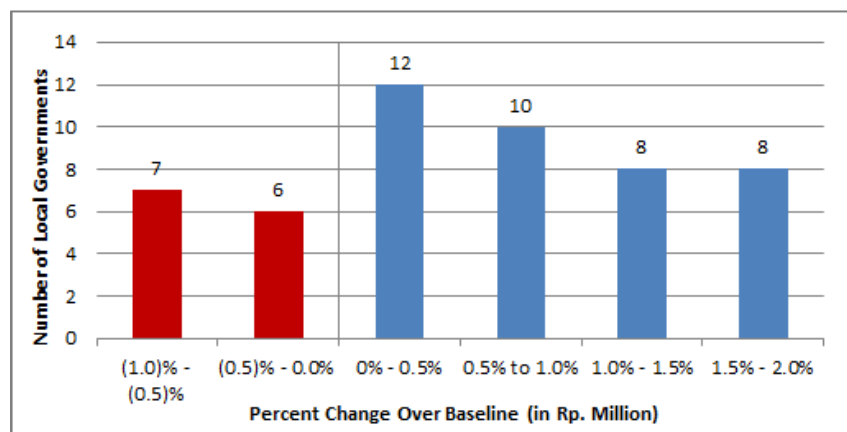


Figure 8: Change of WatSan Budget Allocation (Percentage).

right summarize the absolute value and percentage changes in budget for each local government. The detailed data for these tables can be found in Annex 5a and 5b.

Per figure 7, the water and sanitation budget allocations increased in absolute value terms for all 51 local government partners over the baseline period. For example, 21 local governments increased their water and sanitation APBD allocations between 1 to 10 billion Rupiah per year on average (over the baseline period). Further, 16 local governments increased their investments by between 10 to 20 billion Rupiah on average. Notably, 6 local governments bolstered spending on water services by more than 40 billion Rupiah per year, including Kota Semarang, Kabupaten Gresik, Kota Makassar, Kabupaten Tangerang, Kota Bekasi, and Kota Medan.

Figure 8 groups local governments by the average change in water and sanitation spending as a percentage of the government's overall budget. The percentage allocated to the sector increased in 38 out of 51 cases (or about 75% of all IUWASH partner municipalities), including eight local government that increased their annual spending by between 1.5 to 2.0% on average. There are some cases where the overall sector allocation increased but the percentage actually decreased, such as in Kabupaten Kendal, where the budget increased by about Rp. 4 billion, but, in percentage terms, it actually declined by a small percentage relative to the total LG budget. This means that the overall size of Kendal's budget grew at a faster rate than dedicated WASH funding which could be due to a number of factors outside the control of the project.

A table in Annex 5c also enumerates specific examples of funding leveraged by IUWASH over the past five years. In North Sumatra, for example, the LG of Kota Tanjung Balai allocated Rp. 4.9 billion in 2014 for the construction of a new treatment plant in which IUWASH supported the preparation of the feasibility study. Similarly, Kota Medan allocated Rp. 13 million in 2014 for the development of a wastewater sewerage system following assistance from IUWASH to prepare the DED.

On a final note, the improved transparency in water and sanitation budgeting brought about by IUWASH's work is, in and of itself, an important contribution to the sector. Indeed, the collection of WASH spending for more than 50 local governments represents the only compilation of such information in recent record. In 2015 the World Bank published a public expenditure review for the water sector entitled, "More and Better Spending, Connecting People to Improved Water Supply and Sanitation in Indonesia". In preparing this report, the World Bank team relied principally on the IUWASH data to support their subnational analysis.

Program CC-3: Improved Citizen Engagement

Citizen and civil society involvement in the development process is a key aspect of the IUWASH conceptual framework. During the project period, IUWASH promoted and facilitated the development of mechanisms to engage citizens (referred to as Citizen Engagement Mechanisms or CEMs) to more effectively participate in water supply and sanitation planning and development. This is based on the assumption that an increase of citizen participation will lead to improved decision-making as well as increased transparency and accountability. The support of IUWASH in improved citizen engagement is also in line with the Law No. 14 of 2008 on Public Information Openness and Law No. 25 of 2009 on Public Services which mandates that LGs provide public access to information as well as a means to lodge and respond to citizen complaints.

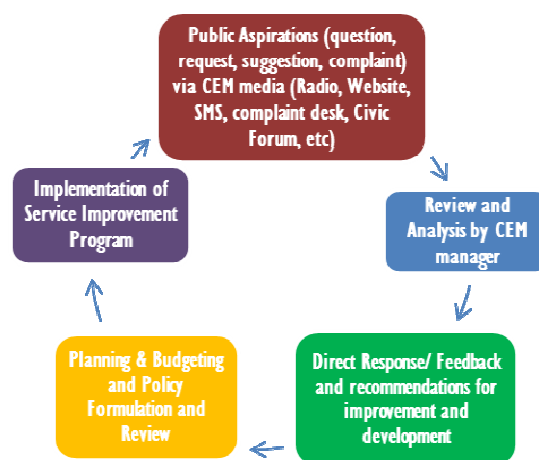
The development of CEM follows a series of steps that are designed to ensure strong local buy-in to the selected mechanism as well as sustainability of its use. During the life of the project, IUWASH has facilitated the development of CEM to 21 municipalities. The last CEM completed was for the development of a sanitation-oriented website for Kota Bogor. Table 29 below summarizes CEM development in each participating municipality.

Table 29: Final Achievement of IUWASH Support to CEM Development Program

No.	Region and Cities	CEM media	Remarks
I	NSRO		
1	Tanjung Balai	Website and Radio Program	Implementation
2	Labuhan Batu	Website	Implementation
3	Langkat	Radio Program	Implementation
4	Binjai	Website AMPL	Implementation
5	Tebing Tinggi	Website AMPL	Implementation
II	WJDB		
6	Kab. Bandung	Website and Radio Program	Implementation
7	Kab. Purwakarta	Website PDAM Kab. Purwakarta	Implementation
8	Kota Serang	Civic Forum “GEMARSI”	Implementation
9	Kota Bogor	Website	Implementation
III	Central Java		
10	Kota Semarang	Complaint Handling Center (Pusat Pelayanan Pengaduan Masyarakat-P3M)	Implementation
11	Sukoharjo	Radio Program	Implementation
12	Klaten	Radio Program	Implementation
13	Batang	Complaint Handling Center (Unit Peningkatan Kualitas Pelayanan Publik (UPKP2)	Implementation
IV	East Java		
14	Sidoarjo	Pusat Pelayanan Pengaduan Masyarakat	Implementation
15	Gresik	Website	Implementation
16	Mojokerto	Radio program	Implementation
17	Probolinggo	Radio program	Implementation
V	SSEI		
18	Parepare	Complaint handling unit	Implementation
19	Takalar	SMS gateway	Implementation
20	Jeneponto	SMS gateway	Implementation
21	Enrekang	SMS gateway	Implementation

The IUWASH National Team continued to support the process of CEM development in the regions to ensure that the mechanisms were being developed and implemented properly. A monitoring tool was also developed to assist regional teams in monitoring. Most of regions now have had appropriate units and budgets to manage their CEM. In the final semester, the IUWASH National Team also conducted a lessons learned workshop in East Java and Central Java to better understand the impact of these mechanisms, applying a participatory method called Appreciative Inquiry. The workshop captured several important lessons, including:

- Certain elements are critical to success in the process of developing and implementing CEM, such as:
 - A strong commitment on the part of government

**Figure 9: Cycle of the Public Aspiration for Service Improvement.**

to listen to their people and open up their own systems to public participation and engagement; and

- An awareness of people of their right to engage and their knowledge of sector issues.
- An awareness of people as concerns their right to water and sanitation services.
- Socio cultural considerations have an important role in determining the form of citizen engagement that is best suited in a particular area. Radio programs, for instance, remain important channels for CEM in certain areas and not in others.

Program CC-4: Gender Mainstreaming

The implementation of the IUWASH Gender Mainstreaming Program focused on the implementation of three key programs, including; 1) implementation of gender pilot programs; 2) implementation of Gender-Responsive Planning and Budgeting exercises at the LG level (PPRG); 3) enhancing PKK involvement in sanitation program. Work in these three areas was undertaken, in part, based on the results of IUWASH gender assessment conducted in the early stages of IUWASH implementation. In addition to these programs, IUWASH also provided support for IUWASH partners to increase their awareness of gender issues. This type of capacity building was generally integrated into other program activities (such as training on sanitation SMEs) which also included important sessions on gender issues. Much of this work was implemented under the auspices of an internal IUWASH Gender Working Group (GWG) which was composed of national and select staff from each region. At the national level, IUWASH worked especially closely with the Ministry of Women’s Empowerment and Protection of Child’s Rights and the Ministry of Public Work to strengthen the planning and budgeting process for LG partners in terms of gender-sensitive programming in the WASH sector. In the final year, a gender publication was developed to capture the project’s experience. This publication provided lessons learned from the three key programs above, plus documentation on the initial assessment process.

Below is the summary of IUWASH Gender Mainstreaming program activities.

1. Gender Assessment

The IUWASH gender Assessment was conducted in the early stages of program implementation. This assessment resulted in a general strategy on gender mainstreaming, including in both the internal work environment of IUWASH, as well as concerns programmatic design. In the work environment, this focused on improving awareness of gender issues, improving individual awareness of the importance of maintaining an inclusive work environment, and generally ensuring that policies of non-discrimination would be fully understood and upheld (which is in line with DAI’s code of conduct). Examples of gender considerations agreed by IUWASH team included:

- The use of no language that could be considered as verbal abuse or disrespect;
- The establishment of gender friendly facilities at IUWASH office (separate toilets, accommodation of a breast feeding room as needed, etc.);
- Ensuring that the staff recruitment process would be open to and encourage applicants regardless of gender;
- Establish a gender tagline in a majority of IUWASH publications stating that “IUWASH promotes women and men equally).

In program activities, this policy also set forth: that men and women should be given the same opportunity to participate in program activities; that such participation should be promoted from the design stage and provided for in the control stage (after IUWASH has disengaged); and that facilities constructed under the auspices of IUWASH should comply to gender-friendly standards.

2. Gender Pilot Program

The concept of IUWASH Gender Pilot Programs was introduced at the end of PY3 in September 2013. The IUWASH Gender Working Group (GWG) developed activities that could be showcased as

models of gender integration to better strengthen the program’s role in this area and improve the prospects of sustainability. This is especially important in the case of WASH programs where the construction of new facilities is often dominated by men, while the operation and maintenance of facilities is often the domain of women. Importantly, the pilot gender programs were not separate, stand-alone activities under IUWASH, but were integrated into other, existing IUWASH programs.

Table 30 below summarizes activities and results of IUWASH gender mainstreaming programs.

Table 30: Achievement of IUWASH Pilot Gender Mainstreaming Activities

<i>Pilot Gender Mainstreaming</i>			
Region	City	Program/ Partners	Summary of Achievement
North Sumatra	Medan	Individual sanitation facility through bio-filter septic tank (Public Work Office)	<ul style="list-style-type: none"> At least 595 beneficiaries agreed to construct the biofilter septic tank that followed “gender-friendly” criteria. A Gender Focal Point also established in the Public Works Office. Given poor water supply in the target area, overall success of the activity was difficult.
West Java/DKI Jakarta/ Banten	Kab. Tangerang	Individual sanitation facility through microfinance for sanitation (KPP UMKM Syariah /Cooperative)	<ul style="list-style-type: none"> More than 1,000 beneficiaries agreed to construct the improved, “gender-friendly” toilet with proper septic tank through microfinance. Microfinance especially targeted women. Overall, there was strong “uptake” of the program and it has continued to be replicated.
Central Java	Surakarta	Individual sanitation facility	<ul style="list-style-type: none"> At least 25 households became active in managing the IPAL Communal. This activity improved CBO support in system management and maintenance.
East Java	Surabaya	Master Meter Program (PDAM/NGO)	<ul style="list-style-type: none"> At least 400 KK connected to 5 master meter systems. 14% of members of CBO were women No longer have long waits for generally insufficient and more expensive water. Additional work is required to improve water use efficiency and on the role of women in the CBO.
South Sulawesi/ Eastern Indonesia	Maros	PDAM Customer Forum (PDAM)	<ul style="list-style-type: none"> 60% of PDAM Customer Forum members are women. Regular monitoring of water issues is conducted at the household level. The PDAM reports fewer complaints and more active communication from PDAM customer to inform them of operational problems.

3. *Planning and Budgeting Responsive Gender (PPRG)*

The implementation of Gender Responsive Planning and Budgeting (*Perencanaan dan Penganggaran Responsive Gender/PPRG*) was added to the gender mainstreaming strategy of IUWASH in response to request from LG partners. This was also supported by the Ministry of Women Empowerment and Protection of Child Protection which had included PPRG as part of a national strategy to mainstream

gender at the LG level. As such, IUWASH also collaborated with the Offices of Women Empowerment and Child Protection of North Sumatra, East Java and South Sulawesi provinces.

IUWASH support to PPRG focused on working with key LG agencies (or “PPRG drivers”) including the local offices of Bappeda, Women Empowerment, Audit, and Revenue and Finance (*Dinas Pendapatan, Pengelolaan Keuangan dan Aset/DPPKA*). While IUWASH work was focused on the WASH sector, several participating LGs used this as an opportunity to provide capacity building in other areas as well.

IUWASH support for PPRG began in early 2014 and started to support 3 LG partner such as LG of Tebing Tinggi city (North Sumatra), Malang district (East Java) and Maros district (South Sulawesi). Several capacity building activities were conducted related to ancillary exercises referred to as Gender Analysis Pathways (GAP), Gender Budget Statement (GBS), and the development of specific Scopes of Work (SOW)—all of which lead to the development of a Gender Responsive Budget (or *Anggaran Responsif Gender* or ARG).

In 2014, IUWASH facilitated the training on the development of ARG and by the end of 2014, the LG of Malang district was the first to conduct a review of ARG and PPRG monitoring. In this time, IUWASH held the first Nasional PPRG Workshop to share and review the status of PPRG implementation in the three (3) cities supported. After this workshop, an additional two LGs in East Java (Jombang and Mojokerto districts) also joined this program. Finally, in early 2016, IUWASH held a second Nasional PPRG Workshop to share results among IUWASH partners, identify lessons learned, and elaborate recommendations for improvement.

4. **Support PKK Involvement in Sanitation Programs**

As part of the IUWASH gender mainstreaming program, IUWASH supported the national women’s association (PKK) in undertaking sanitation-related training and promotional activities in DKI Jakarta and Kab. Bandung. The activities were conducted through several activities such as USP training; training of local sanitation construction contractors; the promotion of household connections to sewerage systems; and in accessing microfinance for sanitation. Table 31 below summarizes support offered by PKK.

Table 31: Summary of Achievement of IUWASH Gender Program with PKK

PKK Involvement in supporting Sanitation Program			
Region	City	Program/ Partners	Summary of Achievement
WJDB	DKI Jakarta	Development of septage management Program (PD PAL Jakarta and PKK Kelurahan Rawamangun, Kemanggisan and Pademangan)	<ul style="list-style-type: none"> Conducted census of potential customers and began to assist in the promotion of regular desludging in Kelurahan Rawamangun, Kemanggisan, and Pademangan. Conducted several training activities for PKK cadre in Kelurahan Rawamangun, Kemanggisan, and Pademangan. The training covered several topics on customer surveying, the marketing of regular desludging services and on program monitoring. Sharing experiences on the promotion of improved sanitation facilities in urban communities.
	Kab. Bandung	Sanitation Microfinance (District Health Office, PT. BPR Kerta Raharja and PKK Kab. Bandung)	IUWASH facilitated gender awareness training and gender integration in sanitation development to sanitarians, DinKes, Dispertasih, Dinas PP, KWWS, PKK and representative s from PT BPR Kertaraharja.

Program CC-5: Mobilizing CSR Funding

The IUWASH programs on mobilizing CSR funding were implemented through: 1) partnership with the Coca-Cola Foundation Indonesia (CCFI) under the auspices of the Water Replenishment Program; 2) strengthening of local CSR Forums; and 3) partnership with Nestle Indonesia on the construction of infiltration pond program. The first was initiated by IUWASH in 2011 with the objective of improving raw water availability and climate change adaptation capabilities among water utilities in North Sumatra, Central Java and East Java. The second aims to support the development of local capacity in CSR programming. The third was initiated in the final year of IUWASH program by USAID Indonesia under a MOU with the Nestle Indonesia and is similar to activities undertaken with CCFI.

Partnership with CCFI on Water Replenishment Program through Construction of Infiltration Ponds (Sumur Resapan)

The implementation of activities with CCFI sought to assist Coca-Cola in ensuring that its overall operations would be “water neutral”; that they would give back (or “replenish”) as much water to the environment as they use in producing their beverage products. A key activity under this program is the construction of infiltration ponds in the water catchments of IUWASH PDAM partners. In order to undertake this work, a substantial effort in community mobilization is required because such ponds are generally constructed on the land of such communities and that these same community members will be responsible for pond maintenance.

During the course of the IUWASH Program, the partnership between IUWASH and CCFI led to the implementation of infiltration pond construction programs in Sibolangit and Kota Pematang Siantar (North Sumatra), Kab. Mojokerto and Kab. Malang (East Java), and Kab. Semarang and Kota Salatiga (Central Java). This program resulted in construction of 3,334 infiltration ponds, including 473 ponds in Sibolangit, 241 in Pematang Siantar, 900 in Kabupaten Mojokerto, 920 in Kab. Semarang and Kota Salatiga, and 800 in Kab. Malang. This figure brings to a total of 3,719 infiltration ponds constructed under IUWASH and which includes 50 infiltration ponds constructed by IUWASH in Kota Pematang Siantar, 160 in Kabupaten Batang, 50 in Kab. Probolinggo and 25 in Kota Batu, and 100 infiltration ponds constructed with Nestle support. NGOs that assisted the CCFI programs included:

- JKM for Sibolangit Area and Pematang Siantar (North Sumatra);
- YLHS/Yayasan Lingkungan Hidup Seloliman for Kab. Mojokerto (East Java);
- SPPQT/Serikat Petani Qaryah Thayyibah for kab. Semarang and Kota Salatiga (Central Java);
- YBUL/Yayasan Bina Usaha Lingkungan for Kab. Malang (East Java).

In addition to the above, IUWASH also provided limited support to another CCFI Water Replenishment program implemented in Kabupaten Magelang. This program targeted the catchment area of Kaliangkrik which constitutes an important source of raw water for PDAM Kab. Magelang.

Upon conclusion of all of the above, IUWASH and CCFI conducted formal inaugurations of the infiltration ponds involving high-level officers from the concerned LGs, USAID/IUWASH and CCFI. These inauguration events aimed to promote the program activity to wider audience and in several instances helped to secure LG support for replication.

Strengthening of CSR Forum

IUWASH work on developing or strengthening CSR forums targeted six (6) districts/municipalities in four IUWASH (4) regions, including Tangerang and Serang Districts in West Java; Batang District in Central Java; Probolinggo and Jombang District in East Java and Jayapura City in Papua. The main objective of these forums is to encourage the participation of corporate social responsibility (CSR) support in WASH programming. IUWASH programs supported by local CSR Forums included those related to sanitation microfinance, infiltration pond development, the establishment of Master Meter systems, the construction

of individual and communal sanitation systems, and support of sanitation entrepreneurs. Work in this area entailed:

1. Strengthening CSR Forums through emphasizing the principles of CSR, where the company must make a profit, care for the welfare of the community, as well as care for the environment (also known as the “triple bottom lines of profit, people, planet”). This build an understanding among businesses that there work has not only a profit motive, but also represents a social and ethical commitment. It also leads LG officers to better appreciate that CSR is not an obligation, but rather an area that needs to be nurtured and encouraged.
2. Making sure that CSR Forums are viewed as supportive and not coercive or with their own profit motive and that they should be co-managed by interested businesses, LG officials as well as community members.
3. Promoting community-based models to ensure that CSR support would be sustainable and contribute to rather than undermine community self-reliance.

The three approaches were implemented through several activities, including: mapping, capacity building (training, workshop, seminar, cross learning visit), partnership mediation, media engagement, and similar areas. These activities targeted improved understanding of all partners on the mechanisms of, potential and limitations of CSR support; improved LG framework from which CSR activities would be implemented (applicable local regulations, day-to-day management of the Forum, number of CSR programs participating, improved promotion and outreach, etc.). In addition to work at the local level, the above ultimately led to the production of two advocacy tools in the form of a video and book entitled “Rumah Bersama CSR”, as well as the organization of a National CSR Workshop on April, 7 2016 at the Sari Pan Pacific Hotel Jakarta.

In addition to raising the profile of CSR programming in the context of WASH activities, the above further led to an increased number of companies participating in local CSR Forums in all assisted locations. In terms of actual programs funded, these included:

- A “healthy latrine” program in Tangerang District with support from PT. Bank Jabar.
- A sanitation microcredit program in Tangerang District with support from Pundi Amal SCTV.
- The construction of 15 “healthy latrines” in Serang District supported by Peduli Kasih Indosiar
- The construction of 40 infiltration wells in Sukacai, Serang District supported by PT. Modern Land.
- The construction of 20 “healthy latrines” in Kauman Village through support of PT. Primatexo, BKK, PT. BRI and Bulog in Batang District
- The construction of 60 “healthy latrines” in Bismo Village supported by PDAM Batang District.
- The purchase of a desludging truck for Jayapura City with support from Jayapura City: PT. Pertamina, PT. Telkom, PT. Bank Papua, PT. Pelindo, etc.

Partnership with Nestle Indonesia on Construction of Infiltration Pond Program

This program with Nestle for the construction of 100 infiltration ponds started intensively in the final year of IUWASH, and under which IUWASH facilitated field visits to potential locations in Kab. Probolinggo. This led to the selection of Krucil and Bermi villages of Krucil sub-district of Kab. Probolinggo and which were chosen based on both their need for water and due to the high number of Nestle milk producers in the area. Further support offered by IUWASH included:

- Conducted field survey to support to the program sites to determine potential sites;
- Supported the evaluation of proposals submitted by local NGOs, a grant for which was ultimately awarded to *Forum Fasilitator Pemberdayaan Masyarakat (FFM)*
- Assisted FFPM and Nestle in the finalization of the grant SOW and related documentation;
- Facilitated a cross visit of FFPM and community representatives of Krucil and Bermi villages to Mojokerto district to share the lessons on the implementation of the program;
- Conducted program socialization at the district level to the key LG institutions; and
- Facilitated several trainings for FFPM team and community members on infiltration pond construction and maintenance, and the monitoring of debit from springs.

Section 2.5

GRANTS PROGRAM

The total value of the Grants Under Contract (GUC) activity of IUWASH was \$ 1,510,344 over five years (see Table 32 below). The IUWASH Grants Program was implemented in accordance with all applicable USAID rules and regulations as stipulated in ADS 303 and 22 CFR 226, and the guidelines described in the USAID-approved IUWASH Grants Program Manual and Grants Implementation Plan. The Grants Manual includes: an overview of the Grants Program; with a review of the types of grants that can be issued; grantee eligibility requirements; the grant award process; grant evaluation and selection procedures; details on grant program administration; and information on processes related to grant termination, suspension and modification. Compliance with all related regulations and procedures is ensured by a national-level Grant Manager together with Procurement and Grant Assistants posted in all regional offices.



While the grant program was important in and of itself, IUWASH was careful to ensure that grant activities contributed directly to the project’s targeted outcomes, were innovative and unique, and could be replicated or scaled up by communities, the local government or interested private sector partners. IUWASH was also careful to ensure that there was an appropriate geographic distribution of grant funds, as well as adequate balance among the types of activities being supported (see charts below). That having been said, it is noteworthy that the majority of grant funds were directed to sanitation-related activities. This is due to both high demand from local government partners for assistance in sanitation programming, as well as the nature of many sanitation programs which are often community-based and, hence, more appropriate for involvement by local NGOs as grantees.

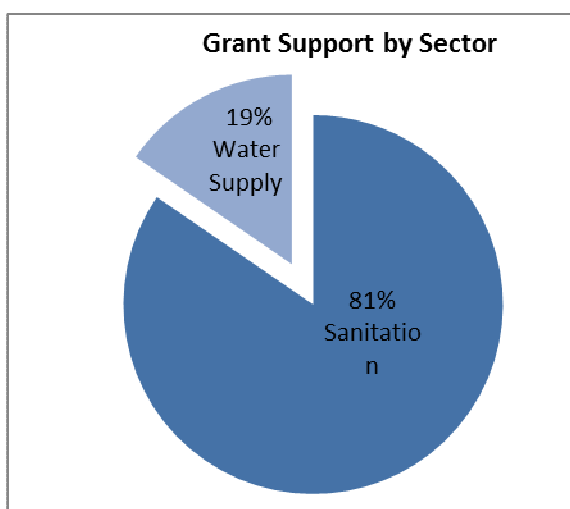


Figure 10: Grant Support by Sector.

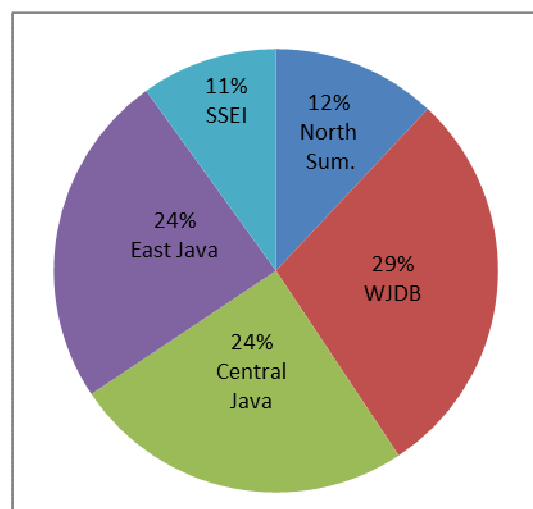


Figure 11: Grant Support by Region

During the final phase of IUWASH, Grant Program management focused on monitoring, trouble-shooting and close-out of existing grants.

In providing grant funding, it should be noted that IUWASH also provided capacity building to grantees. IUWASH understands that the implementation of USAID grant programs can be quite complex and adherence to related rules and regulations can prove difficult unless properly supported and monitored. To ensure that selected grantees receive the support required, IUWASH provided the grantee's Financial Officer and associated staff with appropriate training through the IUWASH regional office staff, in particular the Regional Financial Officer and Grants/Procurement Assistant. Assigned technical specialists likewise provided day-to-day monitoring to ensure that any issues arising were identified and addressed promptly. Capacity building for grantees also included training in monitoring to report on the contributed outcomes. In addition, since gender is an important issue in the water and sanitation sector, IUWASH also provided gender training so that each grantee would have the same strategy and perspective on gender mainstreaming in its program activities. Lastly, since environmental compliance is also important to ensure that the project does not have an adverse impact on the environment, this subject was also included in the training programs for grantees.

Table 32: IUWASH Grant Programs.

Description	Grantee	Total Est. Expend.
North Sumatra		
1. Optimization of Communal WWTPs	YAKMI	\$48,857
2. Communal Sludge Management - Belawan	SMI	\$81,886
3. Master Meter - Sibolga	YAPEKAT	\$56,606
Sub-Total		\$187,349
West Java/DKI/Banten		
1. Septage Management - Jakarta	M.Corps	\$99,972
2. Communal Sewerage - Jakarta	Forkami	\$61,806
3. Master Meter - Rajeg	Forkami	\$41,670
4. Communal Sanitation, Teluk Naga - Tangerang	BSK	\$18,482
5. Communal Sanitation, Kronjo - Tangerang	BEST	\$11,916
6. Fiberglass Molds (in-Kind)	AKR	\$7,532
7. Fiberglass Molds (In-Kind)	CBO	\$1,398
8. Community/School-based Sanitation - Serang	YPCII	\$75,740
9. Small-scale Sewerage - Bekasi	GANECA	\$60,386
10. Sanitation SMEs/Microcredit - Serang	DIM	\$80,644
Sub-Total		\$459,546
Central Java		
1. Communal Sanitation / MCK - Kendal	LPTP Jogja	\$53,068
2. Kampung Sanitasi - Surakarta	LPTP Solo	\$76,935
3. Communal Sanitation - Jomblang	Gita Ptw	\$59,598
4. Customer Forum development	Kompip	\$58,880
5. USRI support	Spek-Ham	\$70,476
6. UPTD development	SCM	\$38,711
Sub-Total		\$357,668
East Java		
1. STBM promotion / Probolinggo	ITS	\$70,273
2. Master Meter / Sidoarjo	Spektra	\$47,737
3. Sanitation SMEs / Microcredit	LPPM-ITS	\$94,572
4. SAN-I promotion - Greater Malang	BEST	\$76,370
5. SAN-I promotion - Greater Pantura	LPPM-ITS	\$71,652
6. Master Meter - Surabaya	FARABI	\$25,112
Sub-Total		\$352,646
SSEI		
1. Sanitation Improvement - Ambon	Murkele	\$51,243
2. Urban Sanitation - Jayapura	Geoteknik	\$34,264
3. Communal San./KSM Cap.Bldg - Makssr	DKM	\$67,627
Sub-Total		\$153,134
TOTAL		\$1,510,344

Section 3

REGIONAL PROGRAM

INTRODUCTION

While IUWASH at the national level provided overall direction and guidance, the strength of the project lied primarily in the work of its regional offices which directly responded to needs, opportunities and the often changing conditions of its 54 LG partners. IUWASH support to these partners was implemented through the 18 programmatic areas of involvement reviewed previously and which include: eight (8) water supply related (WS) programs, five (5) sanitation-oriented programs, and five (5) cross-cutting programs. Given the differing requirements at the local level, the mix of IUWASH activities often varied among its LG partners. This was also in-line with the project’s “demand-driven” approach which sought to ensure strong buy-in for IUWASH activities.

One cornerstone of IUWASH work with LG partners was the establishment of Partnership Agreements with each LG which outlined the roles and responsibilities of each party and also provided a summary workplan which was updated each year. This ensured that planned activities and expectations were clear and further added a high degree of legitimacy to the project’s work across multiple LG departments and offices.

As a small part of the project’s overall exit strategy, formal closing events were also held in each region. In addition to reviewing program accomplishments, they also served as an opportunity to review remaining challenges and, importantly, renew LG commitment (as well as that of national GOI partners) to continue to progress in the work that lies ahead. The overall IUWASH approach also received a good deal of appreciation which other programs may take note of. Table 33 below provides information on closing events at the regional level:

Table 33: IUWASH Closing Event at Regional Level

Closing Event	Event Date	Venue	Host	USAID Representative
North Sumatra	19 January 2016	Grand Angkasa Hotel, Medan	Governor of North Sumatra Province	Vice Director of Environment Office of USAID Indonesia
West Java/Banten	14 April 2016	Grand Royal Panghegar Hotel Bandung	Provincial Secretary (Sekda) of West Java Province	Senior Advisor of USAID Indonesia
Central Java	15 March 2016	Crowne Hotel, Semarang	Governor of Central Java Province	Vice Director of Environment Office of USAID Indonesia
East Java	3 March 2016	Bumi Hotel Surabaya	Assistant to Governor of East Java Province	Vice Director of Environment Office of USAID Indonesia
South Sulawesi	23 February 2016	Grand Clarion Hotel, Makassar	Head of Environment Office of South Sulawesi	USAID Indonesia Mission Director
Ambon Municipality	28 January	Swiss Bell Hotel, Ambon	Mayor of Kota Ambon	Vice Director of Environment Office of USAID Indonesia
Papua Province	4 February 2016	Horison Hotel, Jayapura	Vice Mayor of Jayapura Municipality	Water Team Lead of Environment Office of USAID Indonesia

The following provides a summary of the general profile and IUWASH achievements in each region, as well as detailed information on some highlights of IUWASH work in each assisted LG.



PARTNERSHIP

9 PDAM partners (Medan, Binjai, Langkat, Tebing Tinggi, Pematang Siantar, Asahan, Tanjung Balai, Labuhan Batu, Sibolga), KfW (German Development Bank), Dewan Pimpinan Daerah (DPD) PERPAMSI Sumatera Utara, Satker Air Minum dan Sanitasi Sumatera Utara – PPK Air Minum & PPK Air Limbah, Dinas Perumahan dan Permukiman Kota Medan, CSR Bank Sumut, sAIIIG, District Health Office in Pematangsiantar, Medan, Tebing Tinggi and Binjai, PNPB Mandiri Perkotaan, Credit Union (CU) Saroha and CU Mandiri, Bappeda North Sumatera Province, IDB, YAKMI.

SUMMARY ACHIEVEMENT

NORTH SUMATRA

PROFILE

Indonesia Urban Water, Sanitation and Hygiene (IUWASH) is a United States Agency for International Development (USAID)-funded project. IUWASH aims to develop access to water and sanitation services for communities, including low-income people in urban areas of Indonesia.

In Sumatra Utara, IUWASH works with nine cities/districts including Medan city, Binjai city, Pematangsiantar city, Tanjungbalai city, Tebing Tinggi city, Sibolga city, Asahan district, Labuhanbatu district and Langkat district.

PROGRAM RESULT



397,715 people have obtained access to safe water supplies



\$ 2.1 million in additional assistance has been leveraged from the Government of Indonesia and private sector



25,930 people have gained access to improved sanitation facilities



12 Government institutions and CSOs implement WatSan programs



12,060 people (33% of whom are women) have benefited from project training activities



9 Local Governments increased local budget (APBD) allocations and improved their policies to support improvements in WatSan sector



5 Local Government Established Citizen Engagement Mechanism (CEM) to support improvement of WASH sector



2 Local Government Waste Water Management Units established and operational

NORTH SUMATRA



Langkat District

- Total Population (2015): 1,013,385 people / 249,048 Household
- Percent of Poor Household (2014): 9.99%
- Household served by piped water (2015): 15,581
- Household with basic sanitation (2010): 127,794

In Langkat the Partnership Agreement was signed on 21 June 2013 and the focus of IUWASH support is in the water supply sector with PDAM Kab. Langkat. The key programs PDAM Performance improvement were in energy efficiency, NRW reduction, distribution network improvement, GIS/MIS, billing and accounting, development of PDAM Customer Forum (FKP) and business plan and new SOP development. The FKP supports PDAM to resolve customer's problems so now issues related to water services problems can be resolved quickly. FKP also support promotion of new water connection to the people to accelerate increase of new connections, including poor households. Microfinance program for new water connection in Kab. Langkat showed a great success with 534 poor households obtaining new water connection, resulting in lower water cost and better service in term of quality, quantity and continuity. The promotion of new connection also was done through a new Citizen Engagement Mechanism (CEM) established through Radio Program, which now has a regular program to promote the increase access to safe water supply and sanitation services.

Binjai Municipality

- Total Population (2015): 264,687 people / 60,780 households
- Percent of Poor Household (2014): 6.38%
- Households served by piped water (2015): 12,222
- Household with basic sanitation (2010): 49,809

After signing a Partnership Agreement on 3 October 2011, IUWASH started to support PDAM Kota Binjai with increasing PDAM performance index, by development of billing and accounting system, including establishment of SISKAs (Sistem Informasi, Komputerisasi, Akutansi), which increases the transparency and accountability of PDAM operation. IUWASH also facilitated expanding services through a new WTP in Marcapada (40 lps) for 3,200 connections targeting 40% poor houses. PDAM Binjai also joins development MEBIDANG (regionalization of raw water with Medan and Deli Serdang). Other programs implemented were NRW reduction, distribution network and production capacity improvement, GIS/MIS, financial aspect and new SOPs development.

The key achievement in sanitation sector is development of the sanitation management unit (UPTD) to support small sewerage and individual sanitation systems. IUWASH also supported development of Mayor Regulation as the basis of UPTD establishment. LG Binjai has allocated Rp 822 million from APBD 2016 to support UPTD operation and agreed on development of 5 year UPTD roadmap.

Asahan District

- Total Population (2015): 706,283 people / 164,935 Household
- Percent of Poor Household (2014): 10.98%
- Household served by piped water (2015): 17,430
- Household with basic sanitation (2010): 97,673

IUWASH started support to LG Asahan after signing a partnership agreement on 1 October 2012. In water supply IUWASH supported PDAM Kab. Asahan with NRW reduction, energy efficiency, improving the distribution network, GIS/MIS, tariff review, billing and accounting, financial aspect and SOP development. One of significant result under this program is in development of GIS/MIS program. IUWASH conducted capacity building to PDAM staff and support the development of digitized of PDAM customer data. This program helps PDAM to track problems in the distribution network and digitized all customer data. This program was started already in two areas (Kisaran Barat and Kisaran Timur) for 3,500 customers. It helps to manage existing connections and develop plans for connection expansion. In sanitation sector, IUWASH supported LG partner to develop IPLT design and strengthening of WASH Working Group (Pokja AMPL) to prepare readiness criteria for receiving support from National Government through PPSP Program. The LG of Asahan district developed the city sanitation strategy in 2014.

Medan Municipality

- Total Population (2015): 2,210,624 people / 507,205 households
- Percent of Poor Household (2014): 9.12%
- Households served by piped water (2015): 472,789
- Household with basic sanitation (2010): 424,178

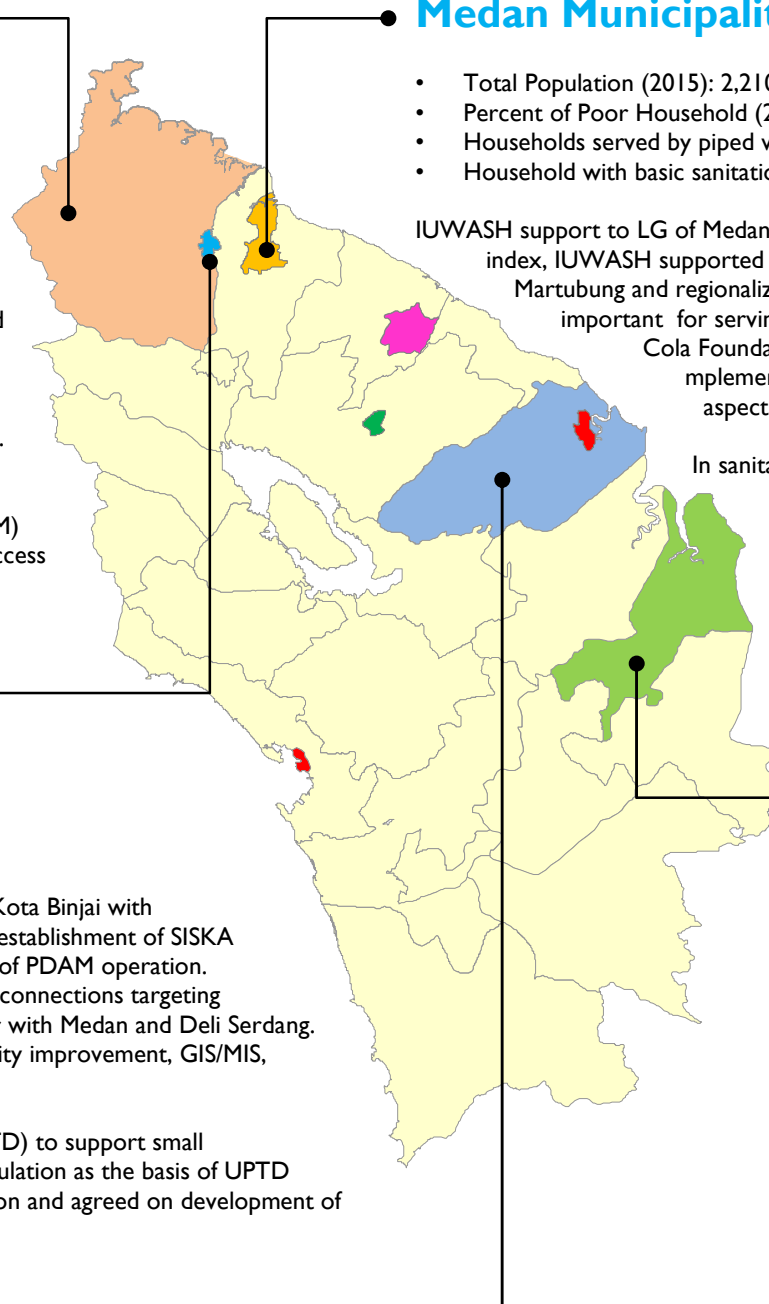
IUWASH support to LG of Medan started by signing Partnership agreement on 26 September 2011. Besides increasing the PDAM performance index, IUWASH supported PDAM Tirtanadi in assuring the increased supply of raw water source through a study on raw water source for Martubung and regionalization of raw water for MEBIDANG (Medan, Binjai and Deli Serdang). Raw water from Martubung area is important for serving poor people in Belawan area. The study was included in the Climate Change Adaptation plan. The Coca-Cola Foundation Indonesia (CCFI) funded the construction of 473 infiltration ponds in Sibolangit area. Other programs implemented were distribution network and production capacity improvement, GIS/MIS, billing and accounting, financial aspect and business plan and new SOPs development.

In sanitation sector, IUWASH supported the development of individual sanitation and sewerage systems. For individual poor households in Belawan, living in small wood houses above the ocean, IUWASH promoted construction of (fibre-glass) septic tanks, financed by LG Medan, in combination with initiating community-based septage management operated by local CBO. For the city sewerage system IUWASH helped operators with extensive promotion and marketing campaigns resulting in 3,658 new households connected to the system. Also IUWASH regional team introduced improved urban septage management to be operated by PDAM Tirtanadi, to LG Kota Medan and North Sumatra Province.

Labuhanbatu District

- Total Population (2015): 462,191 people / 104,137 Household
- Percent of Poor Household (2014): 8.20%
- Household served by piped water (2015): 8,075
- Household with basic sanitation (2010): 54,893

IUWASH formal partnership with LG of Labuhanbatu district started on 31 October 2012 with agreed action plan to support increasing access to safe water supply and sanitation services. Key programs by IUWASH to improve performance of PDAM included reducing NRW, production capacity improvement, development of billing and accounting, development of PDAM business plan and new SOP development, financial aspect and microfinance. In addition to these programs, IUWASH also facilitated PDAM Labuhanbatu to leverage funding from Central Government for construction of three new WTP in Rantau Utara (40 lps), Bilah Barat (50 lps) and Panai Tengah (20 lps). IUWASH provided support on DED development and preparing readiness criteria to obtain additional financing from Central Government. The construction of new WTPs were completed in October 2015 and expected to serve additional 6,300 new connections. Besides this program, PDAM Labuhanbatu also supported water for the poor program through the implementation of microfinance program, where IUWASH supported increasing capacity of PDAM staff on promotional activities. A total of 419 poor households have new water connection through microfinance program.



NORTH SUMATRA



Pematang Siantar Municipality

- Total Population (2015): 247,411 people / 57,844 household
- Percent of Poor Household (2014): 10.35%
- Household served by piped water (2015): 61,795
- Household with basic sanitation (2010): 48,720

LG of Pematang Siantar Municipality signed Partnership Agreement on 3 October 2011.

Support to PDAM covered technical, management and financial aspects to improve PDAM performance index. A significant achievement was the development of climate change adaptation plans for raw water conservation, following an initial climate change vulnerability assessment identifying potential risks and develop plans to conserve their raw water resources. A concrete activity was conducted through construction of 291 infiltration ponds funded by the Coca-Cola Foundation Indonesia (CCFI) and IUWASH. This effort was supported by adoption of a regulation (Peraturan Walikota) on protection of raw water resources, signed by the Mayor. Other programs implemented were NRW reduction, distribution network improvement, GIS/MIS, tariff review, billing and accounting, PDAM Customer Forum, financial aspect and business plan and new SOPs development.

In sanitation sector, IUWASH worked closely with Health Office to promote the development of microfinance program for sanitation. IUWASH provided capacity building for credit union groups on implementation of promotional activities supported increased access to individual sanitation system.

Sibolga City

- Total Population (2015): 86,519 people / 18,566 Household
- Percent of Poor Household (2014): 12.26%
- Household served by piped water (2015): 13,830
- Household with basic sanitation (2010): 7,075

Sibolga Mayor showed strong commitment to support improvement of WASH sector from the signing of the Partnership Agreement on 9 November 2012 resulting in several priority programs implemented such as improving PDAM performance through distribution network improvement, GIS/MIS, tariff review, development of PDAM Customer Forum, Climate Change and Adaptation plan for raw water protection, financial aspect and development new SOPs to support the PDAM operation. Another significant achievement is increasing access of poor people to safe water supply through Master Meter System. After a pilot project on Master Meter was done by IUWASH support in Kelurahan Simare-mare, the LG replicated this to Aek Parumbunan. A total of 213 poor household are now benefitting clean water. Most of them live in hilly area and previously had big difficulties to carry water up to their house, but now they are very happy to obtain water directly at their home for first time in 25 years.

The sanitation program by IUWASH focused on increasing sanitation access of poor people. IUWASH initiated development of 30 fibreglass septic tanks for poor households living in coastal area of Kelurahan Simare-mare and Sibolga Ilir. Sibolga LG agrees to replicate this program and already allocated APBD 2016 for construction of 50 more septic tank.

Tebing Tinggi Municipality

- Total Population (2015): 156,815 people / 37,478 households
- Percent of Poor Household (2014): 11.08%
- Households served by piped water (2015): 83,338
- Household with basic sanitation (2010): 28,579

LG of Tebing Tinggi shown high commitment to support improving of WASH sector and the Partnership Agreement was signed on 3 October 2011. The focus of IUWASH support to PDAM Tebing Tinggi was on development of Business Plan (2013-2017), approved by Mayor. IUWASH also facilitated PDAM Kota Tebing Tinggi to leverage APBN and APBD to construct new WTP in Kutilang area (50 lps), for 3,500 connections from which 40% is targeted for poor houses. IUWASH assisted with DED, reviewing RISPAM and conduct advocacy to the local and central government. Other programs implemented were energy efficiency, NRW reduction, production capacity improvement, billing and accounting, PDAM Customer Forum, financial aspect and business plan and new SOPs development.

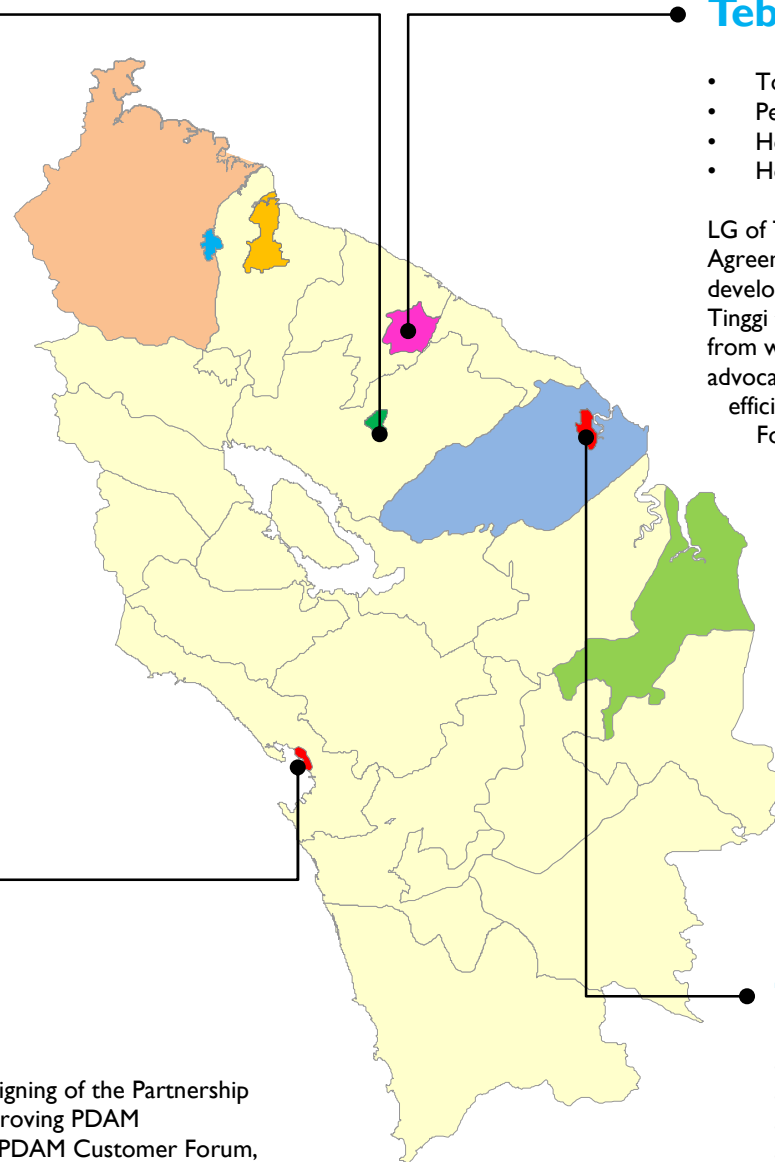
A significant result in the sanitation sector was the signing of Mayor Regulation on domestic wastewater management, followed by development of individual, communal and small scale sewerage systems. IUWASH facilitated Bappeda, PNPB Mandiri and STBM Programs to create synergy on joint program development including promotional activities. A total of 454 households now have improved sanitation facilities through these systems. The high commitment of LG of Kota Tebing Tinggi continued by the establishment of Sanitation Management Unit (UPTD) to manage all these system. For sustainability UPTD now has a 5 year roadmap, for which IUWASH provided series of capacity building activities to UPTD staff and advocacy to LG. IUWASH support also included implementation of gender mainstreaming to LG programs through development of Planning and Budgeting Responsive Gender, for which LG of Tebing Tinggi received national award called the "Anugerah Parahita Ekapraya" in 2015, which recognizes outstanding efforts in improving gender programming in their respective jurisdictions.

Tanjungbalai Municipality

- Total Population (2015): 167,012 people / 35,708 households
- Percent of Poor Household (2014): 14.02%
- Household served by piped water (2015): 22,441
- Household with basic sanitation (2010): 23,633

IUWASH started supporting LG Tanjung Balai with Partnership agreement signed on 3 October 2011. As part of increasing PDAM performance index, IUWASH supported PDAM to conduct energy efficiency audit, because energy of PDAM is 50% of the total operational cost every month. The audit recommendations were then followed up by PDAM, who invested Rp. 1 Billion to buy new pumps. This investment will be paid back within 2,5 year from energy savings. Another significant result is expanding services through construction of two new WTP in Kelurahan Sirantau (100 lps) and Pasar Baru area (40 lps), which will expand services for at least 10,000 new connections in these areas. Other programs implemented were NRW reduction, distribution network and production capacity improvement, GIS/MIS, tariff review, billing and accounting, financial aspect and business plan and new SOPs development.

In the sanitation sector, IUWASH supported increasing access through small sewerage systems and initiate UPTD development. Also IUWASH facilitated the development of the Citizen Engagement Mechanism (CEM) through radio program and LG website. People can provide inputs during radio program and post input in LG Website to participate in improvement of the WASH services.





**SUMMARY
ACHIEVEMENT**

**WEST JAVA
DKI JAKARTA
BANTEN**

PROFILE

Indonesia Urban Water, Sanitation, and Hygiene (IUWASH) is a United States Agency for International Development (USAID)-funded project. IUWASH aims to develop access to water and sanitation services for communities, including low-income people in urban areas of Indonesia.

In West Java, DKI Jakarta, Banten, IUWASH works in eleven districts/cities: Bandung District, Bekasi District, Karawang District, Purwakarta District, Bekasi City, Bogor City, DKI Jakarta, Lebak District, Serang District, Tangerang District and Tangerang Selatan City.

PARTNERSHIP

9 PDAM partners (Serang, Lebak, Tangerang, Kota Bekasi, Kab. Bekasi, Purwakarta, Karawang, Bogor, Bandung), Modern Land (private Sector), Aetra, PT. Palya, District Health Office in Lebak, Serang, Tangerang, Tangsel, Bogor, Kota/Kab Bekasi, Bandung, KPP UMKM Syariah, PT. BPR Kerta Raharja, IDB, sAIIG, PD PAL Jaya, Local Government Agencies (UPTD, Dinkes, PU, BLHD, SKPD), PT. SCTV and Indosiar.

PROGRAM RESULT



822,485 people have obtained access to safe water supplies



\$ 21.4 million in additional assistance has been leveraged from the Government of Indonesia and private sector



30,180 people have gained access to improved sanitation facilities



11 Government institutions and CSOs implement WatSan programs



20,809 people (33% of whom are women) have benefited from project training activities



9 Local Governments increased local budget (APBD) allocations and improved their policies to support improvements in WatSan sector



4 Local Government Established Citizen Engagement Mechanism (CEM) to support improvement of WASH sector



3 Local Government Waste Water Management Units established and operational

WEST JAVA – DKI JAKARTA - BANTEN



Serang District

- Total Population (2015): 643 205 people / Household (2014): 137 634
- Percent of Poor Household (2014): 4.87%
- Population served by piped water (2015): 30,359
- Household with basic sanitation (2010): 140,845

The LG signed the Partnership Agreement on 22 August 2011 resulting in several priority programs such as improving GIS/MIS, development of business plan, tariff review, billing and accounting, development of PDAM Customer Forum, Climate Change Adaptation plan for raw water protection, financial aspect and development new SOPs to support the PDAM operation. Microfinance for new water connection in Kab. Serang showed success with 258 poor households obtaining new connection, resulting in lower water cost and better service. PDAM worked in close collaboration with BPR Serang and BRI for this.

Several achievement were made in sanitation sector like the communal sanitation systems for community and school at Margasana, for over 100 households, which government has replicated in 6 other nearby villages. IUWASH facilitated development of AKSANSI and trained the staff to monitor the SANIMAS program. IUWASH also supported the initial stage of UPTD establishment by developing the Bupati Regulation Number 37/2013 on UPTD establishment.

Lebak District

- Total Population (2015): 1,269,812 people / Household (2014): 308 285
- Percent of Poor Household (2014): 9.17%
- Population served by piped water (2015): 20,374
- Household with basic sanitation (2010): 103,464

After signing a Partnership Agreement on 16 August 2011, IUWASH started to support the production capacity improvement, business plan and new SOP development, GIS/MIS, tariff review, billing and accounting, development of PDAM Customer Forum, Climate Change and Adaptation plan for raw water protection, financial aspect and financial aspect. Specifically for climate change adaptation program, the PDAM worked hand-in-hand with IUWASH and local private sector by installation of 40 infiltration wells to replenish water to the nature. This intervention has increased the spring water discharge assisting the low income families with clean water availability.

In the second phase of IUWASH partnership development, LG signed another Partnership Agreement on 5 February 2013 on sanitation support. IUWASH introduced microfinance for sanitation and the LG granted Rp.200 million to HAKLI to implement the sanitation connection to 155 households, in line with IUWASH grant to develop 35 units of toilets for which payments are done through microfinance. This program was well received and Indosiar continued to provide CSR to build 25 individual toilets.

South Tangerang Municipality

- Total Population (2015): 1 543 209 people / Household (2014): 380 591
- Percent of Poor Household (2014): 1.68%
- Population served by piped water (2015): included in Tangerang district figure
- Household with basic sanitation (2010): 297,029

IUWASH formal partnership with LG of South Tangerang started on 7 December 2012, but since the this city still receive the water supply services from Tangerang district, IUWASH support focused only on the sanitation sector. IUWASH engaged the Health Office to promote the STBM Program especially on triggering program activities. Capacity building was given to sanitarians to support this program.

Tangerang District

- Total Population (2015): 3 370 594 people / Household (2014): 794 813
- Percent of Poor Household (2014): 4.91%
- Population served by piped water (2015): 132,442
- Household with basic sanitation (2010): 406,327

IUWASH started after signing the partnership agreement on 19 September 2011. In water supply IUWASH supported PDAM with development of business plan, new SOPs, PDAM Customer Forum and Master Meter program. The PDAM Customer Forum helps PDAM to improve service because now they can easily gather information on their services from customer. The master meter program was implemented under collaboration with LG of Tangerang and benefiting 250 households from 2 master meter installed in the district. PDAM Tangerang also include services to South Tangerang

On Sanitation the Mayor realized the importance of these issues through IUWASH presentations at workshops, seminars and FGDs and immediately increased budget allocation for sanitation. At the moment 9 out of 25 sanitation priorities programs are IUWASH programs, selected based on the SSK, which IUWASH has helped to develop in 2012. Budget commitment has increased every year. LG also welcomed CSR-BJB who provided IDR 75 million to buy equipment and support capacity building for sanitarians and SME to promote and built individual sanitation facilities. LG setup UPTD, to strengthen

all sanitation activities and a roadmap of domestic wastewater was developed for next 5 years. Another significant achievement is the development of individual sanitation system through microfinance program where IUWASH supported Benteng Mikro Indonesia (BMI) Cooperative. A total of 2,515 households already benefiting from this program to date. BMI Cooperative received award from Ministry of Cooperative for the best achievement on working to improve environment and in 2015, the cooperative also receive AMPL award from Bappenas during KSN 2015.

Purwakarta District

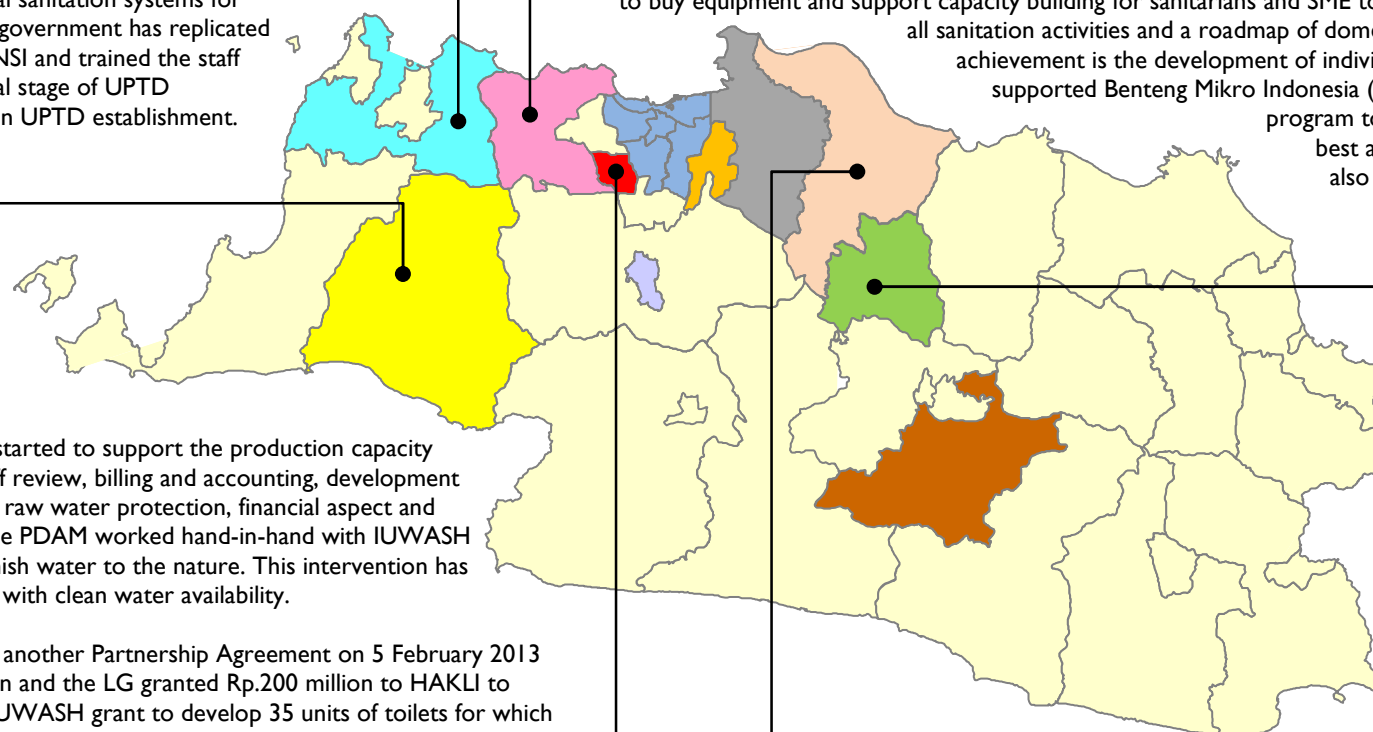
- Total Population (2013): 898,300 people / Household (2014): 240,477
- Percent of Poor Household (2013): 9.28%
- Household served by piped water (2015): 23,238
- Household with basic sanitation (2010): 147,226

IUWASH formal partnership with LG of Purwakarta district started on 3 March 2013 with programs by IUWASH to improve performance of PDAM by introducing GIS/MIS, tariff review, billing and accounting, financial aspect and SOP development. PDAM then improved several regulations related to billing system and customer reclassification, which allows them to expand their service to low income communities.

Karawang District

- Total Population (2013): 2,225,383 people / Household (2014): 611,482
- Percent of Poor Household (2013): 10.69%
- Household served by piped water (2015): 68,934
- Household with basic sanitation (2010): 302,990

IUWASH started support to LG Karawang after signing a partnership agreement on 30 November 2011. In water supply IUWASH supported PDAM Kab. Karawang with GIS/MIS, business plan development, tariff review, financial aspect and SOP development. One of significant result under this program is the development of business plan for the next 5 years. IUWASH conducted capacity building to PDAM staff to develop the plan. This development actually conducting revision of existing plans. Now, document becomes the basis for their future planning both technically and financially. The business plan has improved their overall performance particularly in program and financial planning.



WEST JAVA – DKI JAKARTA - BANTEN



DKI Jakarta

- Total Population (2014): 10,075,300 people / Household (2014): 2,632,300
- Percent of Poor Household (2013): 3,72%
- Households served by piped water (2012): 769,999
- Household with basic sanitation (2010): 1,843,417

The partnership between IUWASH and DKI Jakarta government is unique, because IUWASH directly support WASH institutions. Like in water supply sector, IUWASH assisted Pam Jaya, Aerta and Palyja to install 8 master meter systems in Pelindo Rusun Cilincing, Pulo Gebang, Tanah Merah RW 022, Rawa Buaya, Tanah Badak RW 09, Pademanagan RT06, Telaga Bojong RT 02 and Kapuk Peternakan to serve approximately poor 400 households. In each area a CBO is established and trained in O&M, tariff and fee collection. Initially it was a challenge to implement the master meter with private sector companies to serve low income families in poor, informal areas in Jakarta and to agree on an appropriate tariff. But now all parties agree and fully support this program and request more master meters system in Jakarta.

In sanitation, IUWASH worked closely with PD PAL mainly to introduce improved septage management, through introduction of regular desludging (LLTT), combined with technical review of the 2 IPLT in DKI as well as technical training for PD PAL staff. At the community level, IUWASH worked with PKK Kel Pademangan, Rawamangun, Penjaringan, and Kemanggisian to conduct promotional activities and support regular billing for new LLTT customers, IUWASH also provided Technical support for small expansion of sewerage system in Karet Kuningan. Finally IUWASH facilitated 4 communal IPAL in Lenteng Agung, with the construction financed by Sat-Ker PU DKI Jakarta, for 178 households.

Bogor Municipality

- Total Population (2013): 1.013.018 people / Household (2014): 249,933
- Percent of Poor Household (2013): 8,19%
- Household served by piped water (2015): 139,048
- Household with basic sanitation (2010): 160,938

After Partnership Agreement was signed on 22 November 2011, IUWASH supported PDAM by development of GIS/MIS, PDAM business plan and reviewing capital expenditure for accessing alternative financing. The GS/MIS program assisted PDAM to reduce their operational cost. IUWASH also facilitated regulation to increase equity from LG for PDAM to expand the services.

LG Kota Bogor showed high commitment on improving sanitation and IUWASH supported LG through strengthening UPTD PAL which has responsibility to manage the wastewater system. IUWASH also introduced regular desludging operated by UPTD and PDAM (in future), which started with testing it for 127 houses, survey to identify potential customer, technical review of their IPLT, training IPLT staff and promoting new sewerage connections to IPAL Tegul Gundil by APBD. IUWASH also supported Pokja Sanitasi to develop website on sanitation which allows citizen to gain information on water and sanitation program, and provide inputs or complaints on the implementation of the programs.

Bekasi District

- Total Population (2013): 3.002.112 people / Household (2014): 823,451
- Percent of Poor Household (2013): 5,20%
- Household served by piped water (2015): 201,976
- Household with basic sanitation (2010): 492,876

IUWASH support started by signing a Partnership Agreement on 19 December 2011. IUWASH started with PDAM on several program such as energy efficiency, GIS/MIS, financial aspect and development of business plan and new SOPs. Especially on the energy efficiency program, PDAM has improved a lot and substantially operational cost. The improvement in management is the result of IUWASH intervention through a thorough evaluation of their management performance and conducting various training programs with PERPAMSI.

The sanitation support started with facilitating development of City Sanitation Strategy (CSS) in 2012. This was followed by building communal sanitation system in several housing complexes, as collaboration between LG and REI (Real Estate Indonesia), including some for low income households. IUWASH supported development of DED, facilitate meetings, leverage funding for construction and monitoring the construction activities.

Bekasi Municipality

- Total Population (2013): 2.592.819 people / Household (2014): 682,878
- Percent of Poor Household (2012): 5,33%
- Household served by piped water (2015): 26,680
- Household with basic sanitation (2010): 539,962

After Partnership agreement was signed on 30 November 2011, IUWASH supported PDAM with program on NRW reduction, distribution network improvement, development of business plan and SOPs, GIS/MIS and reviewing capital expenditure for accessing alternative financing. IUWASH facilitated for PDAM to leverage APBD to build a water treatment plant (200 lps / 16,000 households. PDAM implemented a microfinance program to provide clean water connection at a lower cost. A total of 2,147 households benefiting from this microfinance program. The development of PDAM Customer Forum also showed results to support improving services of PDAM to the customer.

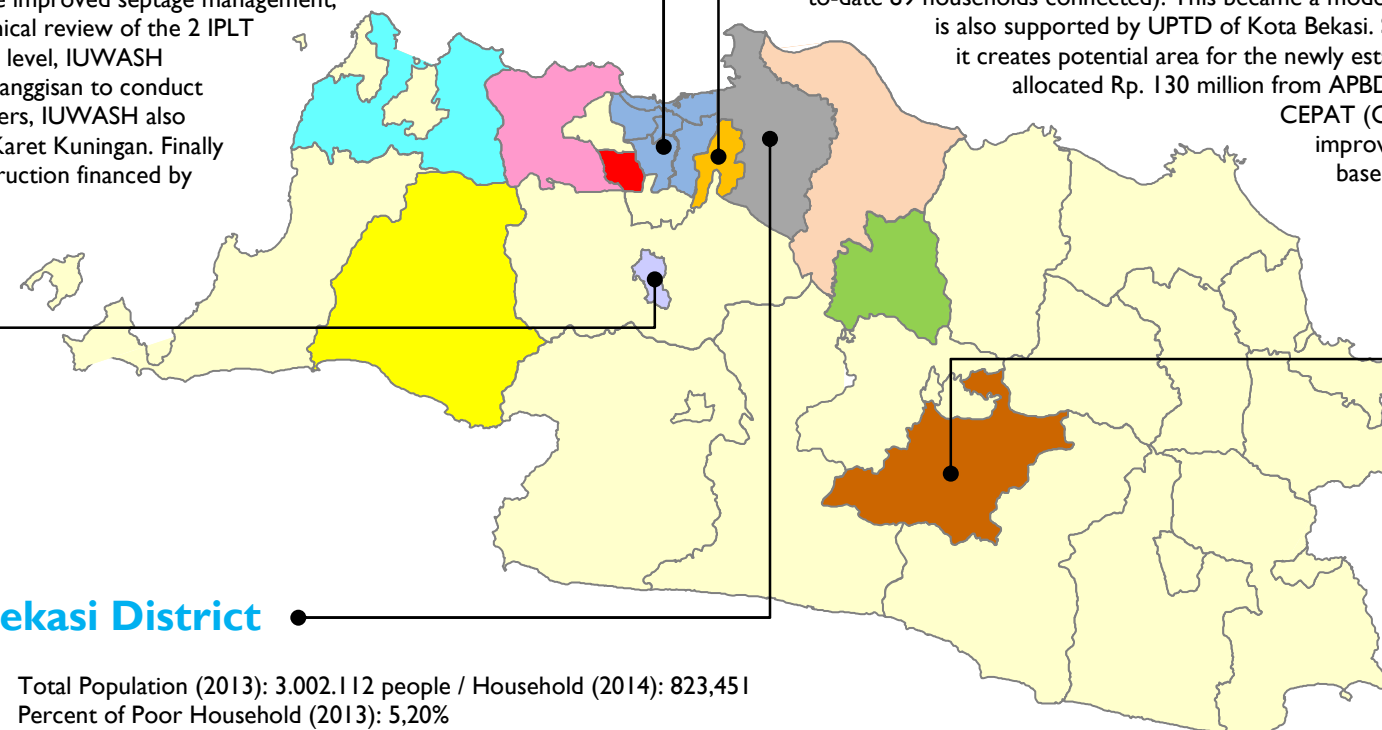
In sanitation sector, IUWASH supported LG with the development of IPAL Communal in Margamulya (potential 120 connections ; to-date 89 households connected). This became a model for replication by the LG and private sector. CBO who manages the IPAL is also supported by UPTD of Kota Bekasi. Since government offices, hospitals and schools are not equipped with IPAL, it creates potential area for the newly established UPTD to manage wastewater system widely. UPTD already allocated Rp. 130 million from APBD to expand the connections. UPTD Kota Bekasi also transformed into CEPAT (Cakap, Efisien, Produktif, Akuntabel dan Tepat) services through improvement in personnel and infrastructure as well as the development of IT-based service management (GPS, customer database, billing system).

Bandung District

- Total Population (2013): 3.405.475 people / Household (2014): 913,837
- Percent of Poor Household (2013): 7,94%
- Household served by piped water (2015): 81,718
- Household with basic sanitation (2010): 418,425

Under the leadership of Bupati Bandung, LG showed strong commitment to support WASH sector by signing the commitment letter on 6 December 2012 resulting in several priority programs implemented such as distribution network improvement, GIS/MIS, development of Climate Change Adaptation plan for raw water protection, financial aspect and development new SOPs to support PDAM operation. PDAM with IUWASH support constructed Kertasari water treatment plan with a capacity of 1000 lps, benefitting 80,000 new low income families. IUWASH assisted with DED and facilitated financial commitment by LG

In sanitation sector, under the Bupati vision namely 'Sabilulungan Raksa Desa' (working together for better healthy environment), the Health Office of Bandung, IUWASH and PT. BPR Kerta Raharja setup a microfinance program for sanitation, providing credit to poor households to construct a septic tank and toilet. The septic tanks are built by SME after receiving training by IUWASH. The sanitarians conduct promotion and later on work with SME to collect the credit installment. They also trained community member in operation and maintenance of the sanitation facility. PT. BPR Kerta Raharja has committed IDR 5 billion for this microfinance program across Bandung district.





PARTNERSHIP

10 PDAM partners (Kota Semarang, Kota Salatiga, Kab. Semarang, Rembang, Kudus, Batang, Kendal, Kota Surakarta, Sukoharjo, Klaten), Coca-Cola Foundation Indonesia (CCFI), Serikat Paguyuban Petani Qariyah Thayibah (SPPQT), Kelompok Swadaya Masyarakat (KSM) Bismo Sejahtera Desa Bismo and KSM Sumber Barokah Desa Tambakboyo Kabupaten Batang, Badan Lingkungan Hidup (BLH) Kabupaten Batang, District Health Office in Surakarta, Sukoharjo, Klaten, Semarang Kota, Semarang Kabupaten, Kota Salatiga, Kendal, Kudus dan rembang, PNPM Mandiri Perkotaan, STBM Kabupaten/ Kota, Pengusaha Sanitasi, Badan Kredit Kecamatan dan Bank Perkreditan Rakyat, USRI Program, Dinas Pekerjaan Umum Kota/Kab. UPTD Kab. Batang, Kab. Sukoharjo, Kab. Rembang, PT.SCM Tirta Utama (Grantee) UPTD PAL Kota Salatiga, sAIG PAO, Local Journalist (Solo Pos, Suara Merdeka, Joglo Semar, Jawa Pos, Radar Solo, Detik.com, MetroTV.com, Meta FM Radio, RRI Solo, TA-TV), Kantor Humas Setda Kabupaten Klaten, Bagian Organisasi Setda Kabupaten Batang, Bagian Organisasi Setda Semarang City, UPKP2 Kab. Batang, RSPD Kab. Klaten, RSPD Kab. Sukoharjo

SUMMARY ACHIEVEMENT

CENTRAL JAVA

PROFILE

Indonesia Urban Water, Sanitation, and Hygiene (IUWASH) is a United States Agency for International Development (USAID)-funded project. IUWASH aims to develop access to safe drinking water and sanitation services for communities particularly low-income people in urban areas of Indonesia.

In Central Java, IUWASH works with 10 municipalities/districts: Semarang City, Surakarta City, Salatiga City, Batang District, Kendal District, Klaten District, Kudus District, Rembang District, Semarang District, Sukoharjo District.

PROGRAM RESULT



477,225 people

have obtained access to safe water supplies



\$ 5 million

in additional assistance has been leveraged from the Government of Indonesia and private sector



137,165 people

have gained access to improved sanitation facilities



11 Government institutions and CSOs implement WatSan programs



31,614 people

(33% of whom are women) have benefited from project training activities



10 Local Governments increased local budget (APBD) allocations and improved their policies to support improvements in WatSan sector



4 Local Government Established Citizen Engagement Mechanism (CEM) to support improvement of WASH sector



2 Local Government Waste Water Management Units established and operational

CENTRAL JAVA



Batang District

- Total Population (2013): 736,397 people / Household (2014): 186,703
- Percent of Poor Household (2013): 11.96 %
- Household served by piped water (2015): 39,732
- Household with basic sanitation (2010): 77,794

The Partnership agreement was signed on 21 January 2013 and strong commitment of the Mayor supported a quick progress in WASH sector development. In water sector, IUWASH facilitated NRW reduction, distribution network improvement, GIS/MIS, tariff review, development of PDAM Customer Forum, Climate Change and Adaptation plan for raw water protection, other financial aspect and business plan and new SOPs development to support PDAM operation. With improved performance, PDAM Kab. Batang received the PERPAMSI award in 2013 for best service performance category. Also credit worthiness rating is increased. Another significant achievement was the development of the climate change adaptation plans for raw water conservation, following a initial climate change vulnerability assessment identifying potential risks and various stakeholder discussions. 160 infiltration ponds were constructed by IUWASH and CSR Forum complimented this by tree planting in the catchment area. Also, the villages have signed Peraturan Desa (village regulation) to protect raw water resources including the maintenance obligation. The sanitation program by IUWASH focused on increasing sanitation access through individual system, with PNPM Mandiri and the CSR Forum for in total over 1,000 households. To further strengthen the WASH sector, IUWASH and LG developed a Citizen Engagement Mechanism (CEM) through a Complaint Handling Center where citizen can report on WASH services in the district.

Kendal District

- Total Population (2013): 934,643 people / Household (2014): 254,459
- Percent of Poor Household (2013): 12.68 %
- Household served by piped water (2015): 63,461
- Household with basic sanitation (2010): 136,693

IUWASH formal partnership with LG Kendal district started on 9 December 2011, with agreed action plan. Key programs to improve performance of PDAM included reducing NRW, GIS/MIS, financial aspect, business plan and SOP development. During this period, PDAM Kendal also increased credit worthiness rating.

In sanitation sector, an IPAL communal for 46 households was constructed in Kutoharjo village. In collaboration with PNPM Mandiri, IUWASH supported construction of 186 improved septic tanks, where IUWASH involvement focused on capacity building of sanitarian to conduct promotional activities to have improved sanitation facility and develop SME to construct the toilet.

Sukoharjo District

- Total Population (2015): 856,937 people / Household (2014): 235,859
- Percent of Poor Household (2014): 9.87 %
- Population served by piped water (2015): 23,279
- Household with basic sanitation (2010): 157,008

IUWASH formal partnership with LG of Sukoharjo district started on 13 February 2013. The key programs on PDAM Performance improvement were in Energy Efficiency, NRW reduction, distribution network and production capacity improvement, GIS/MIS, tariff review, PDAM Customer Forum, financial aspect, microfinance, financial aspect and business plan and new SOP development. In financial aspect, the PDAM increase the credit worthiness rating. In Microfinance for water over 4,400 poor households now have new water connection IUWASH supported PDAM staff on promotional activities.

In sanitation, IUWASH worked closely with PNPM Mandiri to promote individual sanitation system and over 2,500 households benefitted from this collaboration. While for communal sanitation system, IUWASH supported USRI on post construction activities through strengthening of CBOs on maintaining the system and IUWASH facilitated CBOs for additional support from LG and community members themselves to connect more households to the IPAL. A total 990 households now have improved sanitation facility. Another key achievement was the development of the sanitation management unit (UPTD) to oversee the individual and communal sanitation systems. IUWASH supported development of the regulation as the basis of UPTD establishment.. LG allocated Rp 8 Billion from APBD 2016 to support UPTD operation and agreed on development of 5 year UPTD roadmap.

Semarang Municipality

- Total Population (2014): 1,672,999 people / Household (2014): 441,747
- Percent of Poor Household (2013): 5.25 %
- Household served by piped water (2015): 160,427
- Household with basic sanitation (2010): 321,084

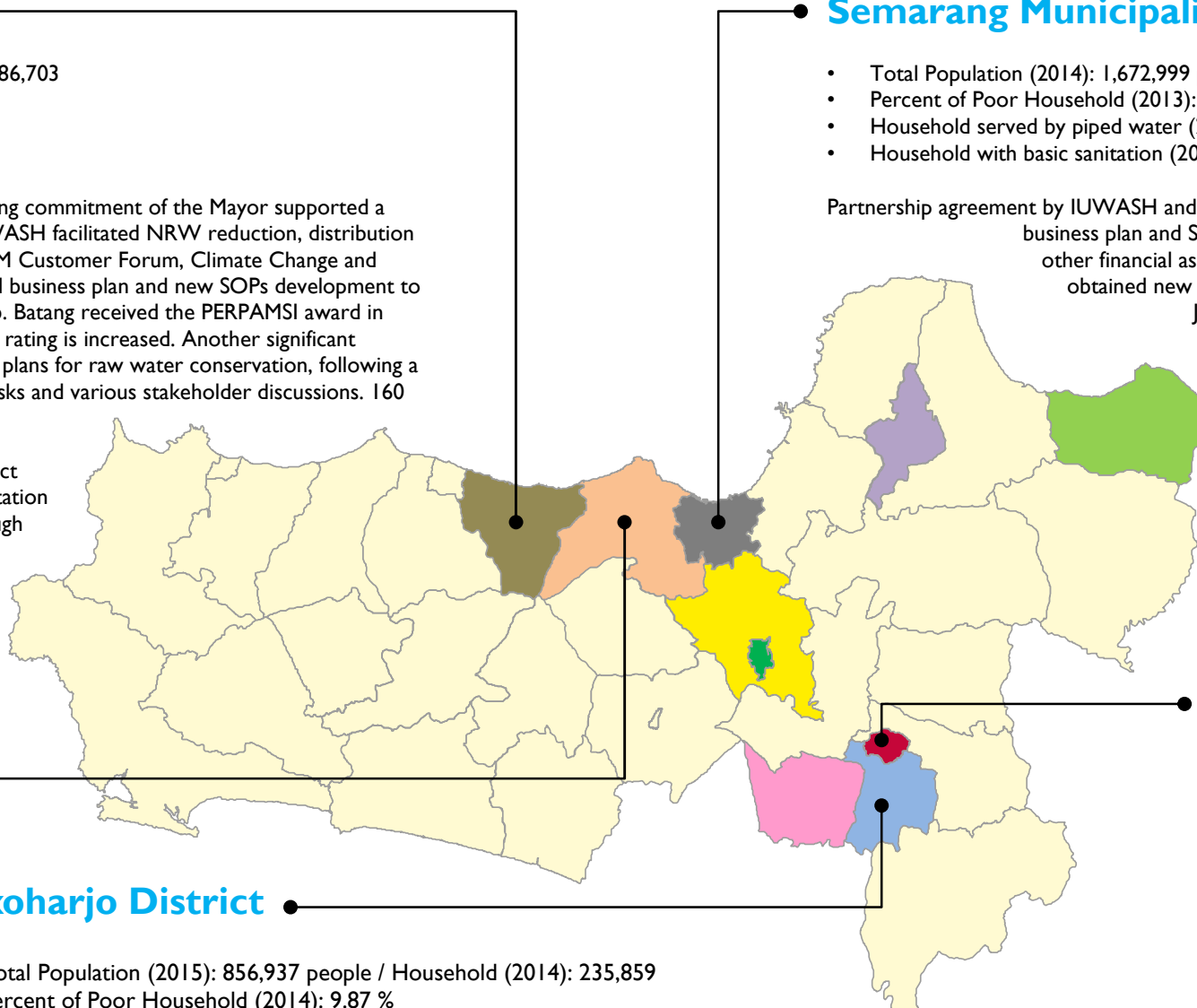
Partnership agreement by IUWASH and LG was signed on 20 December 2011. IUWASH supported PDAM with business plan and SOP, improved production capacity, tariff review, microfinance program and other financial aspect. PDAM used their own fund as microfinance and 414 poor households obtained new water connection from this program, including 211 poor families from Jomblang neighborhood where IUWASH also construct new reservoir to expand services to this area. This area was previously not covered by PDAM area because it is located in hilly area and pressure was not enough to supply water. Jomblang community then also received a communal sanitation system for 100 households. To further support WASH sector improvement, IUWASH supported LG to develop CEM (Citizen Engagement Mechanism) through a Complaint Handling Center where citizen can report and provide inputs to support the improvement of the WASH services in the city.

Surakarta Municipality

- Total Population (2014): 510,077 people / Household (2014): 144,328
- Percent of Poor Household (2013): 11.74 %
- Households served by piped water (2012): 60,921
- Household with basic sanitation (2010): 84,095

The LG signed Partnership Agreement was on 1 February 2012. The focus of IUWASH support to PDAM was on energy efficiency, NRW reduction, tariff review, development of new SOPs, master meter and financial aspect. A master meter was built as part of the Kampung Sanitasi Program of LG. This program supports poor people in slum area with improved access to safe water and sanitation. Almost 100 households have now access to safe water supply through master meter and additional 50 households are connected to Communal IPAL also constructed in this kampong. In financial aspect, PDAM Surakarta increased the credit worthiness rating.

Significant progress was made in the sanitation sector by the signing of 4 Mayor Regulations on domestic wastewater management, which are now the umbrella for all individual, communal and sewerage system as well as the regular desludging program. IUWASH collaborated with PNPM Mandiri for promoting the individual system (380 households) and with ADB/USRI Program for the communal system (1,060 households). To support the sustainability of all these systems, a city-wide septage management through regular desludging system (LLTT) was developed and launched by Surakarta Mayor. This regular desludging system is managed by PDAM Kota Surakarta.



CENTRAL JAVA



Kudus District

- Total Population (2014): 821,136 people / Household (2014): 204,791
- Percent of Poor Household (2013): 8.62 %
- Household served by piped water (2015): 29,430
- Household with basic sanitation (2010): 35,806

IUWASH started support to LG Kudus after signing a partnership agreement on 22 December 2011. IUWASH support to PDAM Kudus was only in the first half part of IUWASH period and included distribution network improvement, GIS/MIS, business plan and SOP development, assessing vulnerability of climate change impact to raw water sources and microfinance for water. Through the microfinance program 635 poor households were connected.

In sanitation IUWASH collaborated with local sanitarians, PNPM Mandiri for individual system (204 households have new improved septic tanks) and ADB/USRI for communal system, where IUWASH supported post construction activities by strengthening of CBOs on maintaining the IPAL communal and optimizing new connection to the existing IPAL. In total over 1,400 households now have improved sanitation facility through IPAL communal systems. IUWASH also facilitated the CBOs to get additional support from LG to connect more households to the IPAL.

Salatiga Municipality

- Total Population (2014): 181,193 people / Total Household (2014): 49,990
- Percent of Poor Household (2013): 6.40 %
- Households served by piped water (2012): 27,684
- Household with basic sanitation (2010): 34,630

IUWASH started support partnership agreement was signed on 1 March 2013. Support to PDAM included Energy Efficiency, NRW reduction, GIS/MIS, business plan and new SOPs development, other financial aspect and raw water protection program, including the climate change adaptation plans for raw water conservation, in which Coca-Cola Foundation Indonesia (CCFI) funded 188 infiltration ponds in Senjoyo catchment area where mostly PDAM springs are located. In 2013, PDAM also received PERPAMSI award.

In sanitation sector, IUWASH worked closely with PNPM Mandiri to promote individual sanitation system. IUWASH provided capacity building for sanitarians and SME to construction healthy toilet. A total of 120 households benefiting from this improved individual system.

Klaten District

- Total Population (2015): 1,154,040 people / Household (2014): 333,122
- Percent of Poor Household (2014): 15.60 %
- Population served by piped water (2015): 37,941
- Household with basic sanitation (2010): 199,640

After the Partnership Agreement was signed on 16 July 2013, IUWASH supported PDAM Klaten with distribution network improvement, GIS/MIS, tariff review, PDAM Customer Forum, development of Business Plan and new SOPs, financial aspect and microfinance for water, which uses PDAM funding to connect almost 1,900 poor families to PDAM. IUWASH supported PDAM staff on promotion activities.

Also here development of individual sanitation program was done with PNPM Mandiri, where IUWASH conducted capacity building on promotion and construction of improved septic tank by SME. This program resulted in over 8,700 households now having improved septic tank. For the communal system, IUWASH supported USRI especially in post construction activities, to obtain additional support from LG, CSR and community members to connect more households to the IPAL. A total of almost 650 households now have improved sanitation facility. Also IUWASH facilitated the development of the Citizen Engagement Mechanism (CEM) through radio program. People can provide inputs during radio program (radio talk show).

Rembang District

- Total Population (2014): 614,087 people / Household (2014): 168,851
- Percent of Poor Household (2013): 20.97 %
- Household served by piped water (2015): 17,869
- Household with basic sanitation (2010): 74,584

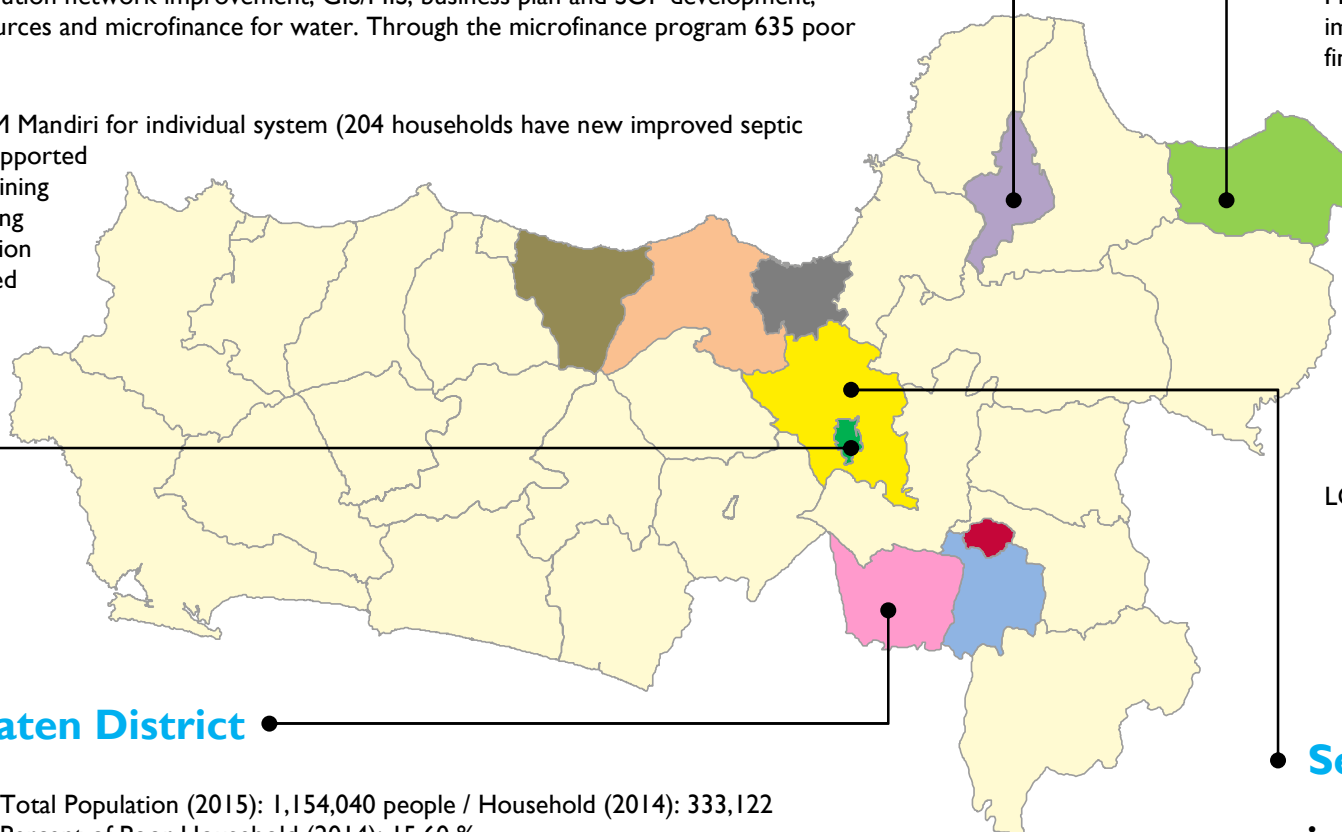
After signing a Partnership Agreement on 31 January 2013, IUWASH supported PDAM with NRW reduction, energy efficiency, distribution network improvement, GIS/MIS, SOP development, Customer Forum, microfinance and financial aspect. PDAM succeeded to accomplish the debt restructuring and became debt free in 2015, as well as increasing its credit worthiness rating. Microfinance for water resulted in 679 poor households obtaining access to PDAM water. IUWASH conducted capacity building of PDAM staff and promotional activities.

In sanitation IUWASH collaborated with PNPM Mandiri for individual system and ADB/USRI Program for the communal system. IUWASH focuses on promotional activities and conducted capacity building for SME on construction of improved septic tank. A total of 2,942 households have new improved septic tanks. In communal system, IUWASH supported pre- and post construction activities by promotion and strengthening CBOs on maintaining the system and optimizing new connection. IUWASH facilitated the CBOs to obtain additional support from LG, CSR and community members themselves to connect more households.

Semarang District

- Total Population (2014): 987,557 people / Household (2014): 266,243
- Percent of Poor Household (2013): 8.51 %
- Household served by piped water (2015): 39,537
- Household with basic sanitation (2010): 163,237

Here the Partnership Agreement was signed on 24 October 2011, followed directly by IUWASH support for NRW reduction, GIS/MIS, business plan and SOP development, financial aspect and climate change adaptation plan for raw water protection with PDAM, which is now integrated in PDAM business plan; Coca-Cola Foundation Indonesia (CCFI) contributed for constructing 732 infiltration ponds in Ngablak catchment area, where several PDAM springs are located showing degradation. In addition, communities established Peraturan Desa (village regulation) to protect raw water resources including maintenance obligation of every infiltration wells. In financial aspect, PDAM Kab. Semarang is on schedule to pay their debt on time. The program in sanitation sector focused on promotion of individual sanitation system with sanitarian and PNPM Mandiri. A total of 95 households now have improved septic tank.





**SUMMARY
ACHIEVEMENT**

EAST JAVA

PROFILE

Indonesia Urban Water, Sanitation, and Hygiene (IUWASH) is a United States Agency for International Development (USAID)-funded project. IUWASH aims to develop access to safe drinking water and sanitation services for communities particularly low-income people in urban areas of Indonesia.

In East Java, IUWASH works with 12 districts/municipalities: Gresik District, Jombang District, Lamongan District, Malang District, Mojokerto District, Probolinggo District, Sidoarjo District, Batu City, Malang City, Mojokerto City, Probolinggo City and Surabaya City.

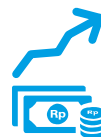
PARTNERSHIP

12 PDAM partners (Kab. Gresik, Kab. Lamongan, Kota Surabaya, Kab. Sidoarjo, Kab. Jombang, Kota Mojokerto, Kab. Mojokerto, Kota Probolinggo, Kab. Probolinggo, Kab. Malang, Kota Malang, Kota Batu), Bank BRI: Kota Surabaya, Kab. Mojokerto, Kab. Sidoarjo, Bank UMKM Surabaya, Coca-Cola Foundation Indonesia (CCFI), Nestle, PDAM Kabupaten Jombang, District Health Office in 12 Kab/Kota IUWASH partners & SMEs, Bank Jombang; Bank BSM Kab. Mojokerto, Public Works Office in Kab. Jombang, Kab. Gresik, Kota Surabaya, Kota Batu, Kota Malang, Kab. Malang, Kota Probolinggo, Pokja Sanitasi all partners except Kota Surabaya and Kota Mojokerto, DFAT/INDII, Pondok Pesantren Annur Kota Probolinggo.

PROGRAM RESULT



701,085 people have obtained access to safe water supplies



\$ 1.7 million in additional assistance has been leveraged from the Government of Indonesia and private sector



72,530 people have gained access to improved sanitation facilities



215 Government institutions and CSOs implement WatSan programs



21,869 people (33% of whom are women) have benefited from project training activities



11 Local Governments increased local budget (APBD) allocations and improved their policies to support improvements in WatSan sector



4 Local Government Established Citizen Engagement Mechanism (CEM) to support improvement of WASH sector



4 Local Government Waste Water Management Units established and operational

EAST JAVA



Lamongan District

- Total Population (2014): 1,187,795 / Household (2014): 305,407
- Percent of Poor Household (2014): 15.68 %
- Household served by piped water (2015): 16,132
- Household with basic sanitation (2010): 178,542

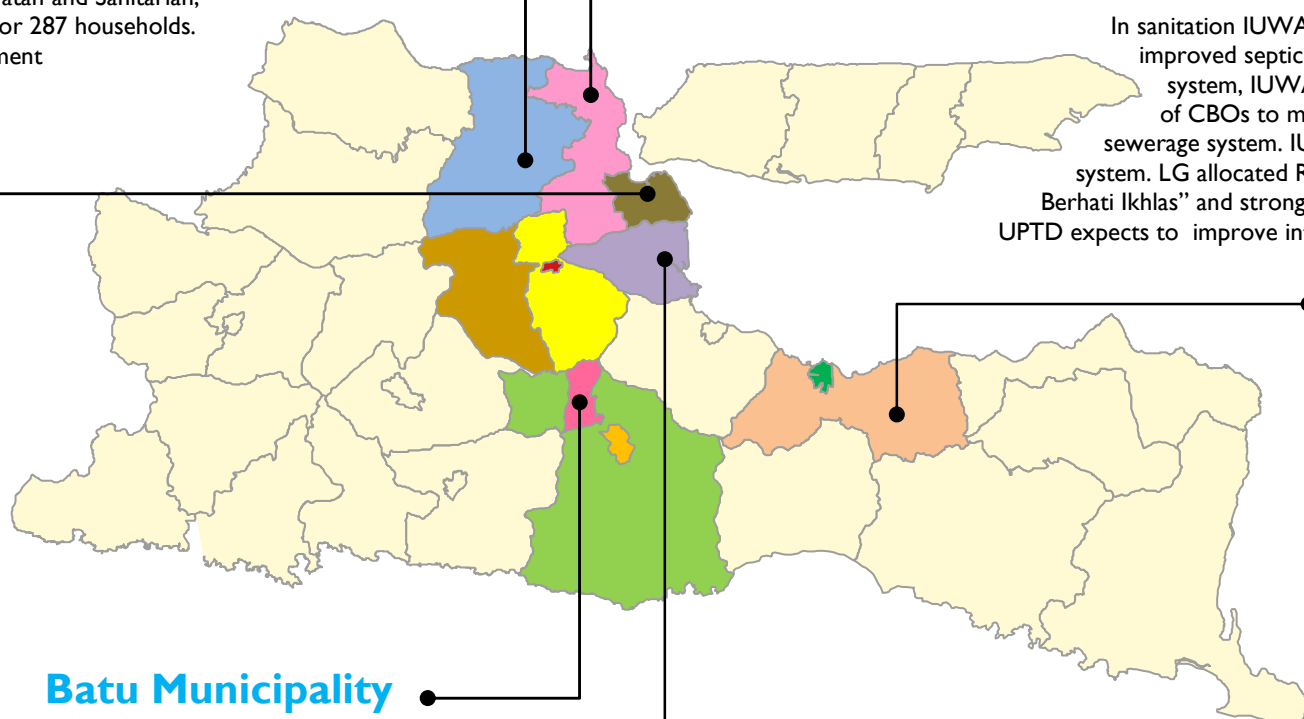
After Partnership Agreement was signed on 26 October 2011, IUWASH supported PDAM on NRW reduction, improve distribution network and production capacity, business plan and new SOP development, tariff review, billing and accounting, PDAM Customer Forum, and financial aspect. The Mayor supported all activities, including tariff increase of 49%, after which PDAM can increase service from 2 hour to 12 hours. In the sanitation sector, development of individual sanitation system was done by HIPPAMS Banyu Urip, together with Dinas Kesehatan and Sanitarian, including triggering demand and provision of microcredit for 287 households. HIPPAM received AMPL award in 2013 for their achievement in sanitation sector.

Surabaya Municipality

- Total Population (2014): 2,848,583 / Household (2014): 775,599
- Percent of Poor Household (2014): 5.79 %
- Household served by piped water (2015): 536,984
- Household with basic sanitation (2010): 509,585

The IUWASH program in Surabaya was agreed without format partnership agreement, but directly with each WASH partner. In water supply sector, IUWASH assisted PDAM Surabaya on water for the poor programs (microfinance and master meter programs) and development of new SOPs. In Microfinance over 200 poor households now have new water connection and IUWASH supported PDAM staff on promotional activities. Master Meters were installed in Legundi, Kanginan, Undaan Wetan and Greges Barat Dalam, by LSM FARABI, who also established CBO and trained them in O&M, and fee collection. Community members are very happy with this system because they never had safe water supply. The Mayor inaugurated the Master Meter system on 19 May 2015.

In sanitation, IUWASH worked closely with USRI to optimize the post construction for 421 households. IUWASH strengthened CBO on O&M of the communal system and optimize household connection. IUWASH collaborated with Provincial Dinas Kesehatan and BBTCLPP Surabaya for 3 Training of Trainers on Urban Promoters Sanitation, for 90 people from 12 LG. ToT Alumnus from Probolinggo and Kab Banyuwangi disseminated ToT materials with other Sanitarians and cadres on monthly meeting.



Gresik District

- Total Population (2014): 1,256,313 / Household (2014): 314,925
- Percent of Poor Household (2014): 13.41 %
- Household served by piped water (2015): 83,153
- Household with basic sanitation (2010): 222,154

IUWASH support by signing Partnership agreement on 26 October 2011. In water sector, several priority programs were implemented like energy efficiency, NRW reduction, GIS/MIS, tariff review, business plan and new SOPs development. A big challenge for the PDAM was that tariff was not increased for 11 years and could not cover financial requirement. But finally with IUWASH support, PDAM could convince the Mayor to increase the tariff, which was applied starting January 2014. PDAM also collaborates with PT Dewata and PT Drupadi on financing new WTP (250 lps) to increase the raw water supply and improve the distribution system so PDAM can have better services to the customer.

In sanitation IUWASH collaborated with Health Office to increase capacity of sanitarian to promote the improved septic tank combined with and optimizing IPLT for improved septage system. For communal system, IUWASH supported USRI program to optimize use of IPAL communal and strengthen capacity of CBOs to manage the system. For sewerage system, IUWASH supported sAIG program to develop small sewerage system. IUWASH also facilitated establishment of new UPTD to manage the domestic wastewater system. LG allocated Rp. 1 Billion to operate the UPTD, which has motto "Bekerja Keras, Berpikir Cerdas dan Berhati Ikhlas" and strong commitment to provide Pelayanan JEMPOL (premium services). In the 5 year roadmap, UPTD expects to improve into BLUD (Badan Layanan Umum Daerah).

Probolinggo District

- Total Population (2015): 1,140,480 / Household (2014): 320,595
- Percent of Poor Household (2014): 20.44 %
- Population served by piped water (2015): 20,565
- Household with basic sanitation (2010): 60,045

LG has shown high commitment to support improving of WASH sector and the Partnership Agreement was signed on 1 August 2012. The focus of IUWASH support to PDAM was on NRW reduction, distribution network improvement, GIS/MIS, tariff review, development of business plan and new SOPs, financial aspects and raw water protection program. IUWASH and Nestle Indonesia constructed 150 infiltration ponds in Tancak catchment area and Krucil and Bermi villages to increase raw water supply.

In sanitation sector, IUWASH worked closely with Health Office to promote individual sanitation system, by providing capacity building for sanitarians and SME to support construction of almost 600 healthy toilet, including 447 obtaining microfinance for financing their improved septic tanks.

Batu Municipality

- Total Population (2014): 200,485 / Household (2014): 52,278
- Percent of Poor Household (2013): 4.59 %
- Households served by piped water (2012): 11,698
- Household with basic sanitation (2010): 36,922

The partnership agreement was signed on 1 November 2012 followed by support to PDAM on NRW reduction, GIS/MIS, business plan, new SOPs development, and climate change adaptation planning for raw water conservation, following an initial climate change vulnerability assessment identifying potential risks and various stakeholder discussions. IUWASH supported construction of 25 infiltration ponds.

The sanitation program focused on increasing access through communal systems, as collaboration with ADB/USRI. IUWASH supported post construction activities by strengthening CBOs on maintaining the IPAL communal and optimizing new connection for over 1,500 households. IUWASH also facilitated the CBOs to get additional support from LG to connect more households to the IPAL..

Sidoarjo District

- Total Population (2014): 2,117,279 / Household (2014): 553,308
- Percent of Poor Household (2014): 6.40 %
- Household served by piped water (2015): 133,191
- Household with basic sanitation (2010): 357,148

The LG signed Partnership Agreement was on 26 October 2011. IUWASH then supported PDAM with NRW reduction, GIS/MIS, business plan and new SOPs, PDAM Customer Forum, microfinance, master meter and financial aspect. Three master meters were installed in Pecantingan, Celep and Karanggayam plus connection to existing master meter in Lemah Putro, for a total of 342 households. In microfinance, PDAM worked with BRI to connect 638 poor families.

592 Individual sanitation systems were built through microfinance program managed by SME and sanitarians. LG also established a sanitation management unit (UPTD) to support domestic wastewater management and committed Rp. 1,5 Billion to operate the UPTD, who now also has 5 years roadmap. IUWASH also supported LG to develop CEM (Citizen Engagement Mechanism) through a Complaint Handling Center where citizen can report on ways to improve the WASH services in the city.

EAST JAVA



Mojokerto Municipality

- Total Population (2014): 125,706 Household (2014): 32,846
- Percent of Poor Household (2014): 6.42 %
- Household served by piped water (2015): 4,748
- Household with basic sanitation (2010): 24,148

IUWASH started support to LG Kota Mojokerto after signing a partnership agreement on 1 November 2012, with NRW reduction, production capacity improvement, business plan development, tariff review, new SOP development and financial aspect. At the start of IUWASH Performance of PDAM Kota Mojokerto was very poor, but after IUWASH facilitated PDAM staff to work together on development of business plan and other improvements, performance increased significantly. Now, PDAM is moving to “healthy” PDAM status. In sanitation sector, IUWASH engaged the Health Office to promote the STBM Program on triggering program activities. Capacity building was given to sanitarians to support this.

Jombang District

- Total Population (2014): 1,240,985 / Household (2014): 329,978
- Percent of Poor Household (2014): 10.80 %
- Households served by piped water (2015): 18,711
- Household with basic sanitation (2010): 179,819

LG has shown high commitment to support WASH improvements ever since the Partnership Agreement was signed on 1 October 2012. IUWASH supported PDAM with NRW reduction, GIS/MIS, tariff review, billing and accounting, PDAM Customer Forum, development of business plan and new SOPs, financial aspect and microfinance. PDAM Jombang increased their performance by 48%.

For individual sanitation systems, additional 1,039 households have improved toilet, including 978 households who obtained microfinance from Bank Jombang. LG allocated Rp. 1 Billion to Bank Jombang to implement this program. IUWASH also worked closely with USRI Program to optimize and support the post construction of communal systems for 603 households. IUWASH strengthened CBO on O&M and optimize household connection. The establishment of CSR Forum Kab. Jombang contributed as well.

Malang District

- Total Population (2014): 2,544,315 / Household (2014): 689,542
- Percent of Poor Household (2014): 11.07 %
- Population served by piped water (2015): 93,033
- Household with basic sanitation (2010): 390,092

After the Partnership Agreement was signed on 26 November 2012, IUWASH supported PDAM with NRW reduction, GIS/MIS, PDAM Customer Forum, new SOPs, and raw water protection program. Coca-Cola Foundation Indonesia (CCFI) contributed with constructing 800 infiltration ponds in Ubalan, Polaman, and Mlaten catchment area, where several PDAM springs are located showing degradation.

Development of individual sanitation program was done with Health Office where IUWASH conducted capacity building on promotion and construction of improved septic tank by SME, for over 216 households. For the communal system, IUWASH supported USRI in post construction activities, to obtain additional support from LG, CSR and community to connect more households to the IPAL. A total of over 1,950 new households were connected by end of IUWASH. IUWASH also supported gender mainstreaming of LG programs through Planning and Budgeting Responsive Gender, for which LG of Kab. Malang increase budget on WASH program that already have gender analysis pathway.

Mojokerto District

- Total Population (2014): 1,080,389 / Household (2014): 286,303
- Percent of Poor Household (2014): 10.56 %
- Household served by piped water (2015): 18,619
- Household with basic sanitation (2010): 161,952

The Partnership Agreement was signed on 26 October 2011, followed directly by IUWASH support for NRW reduction, GIS/MIS, business plan and new SOPs development, tariff review, PDAM Customer Forum, other financial aspect, microfinance and climate change adaptation plan for raw water protection with PDAM, which is now integrated in PDAM business plan; Coca-Cola Foundation Indonesia (CCFI) contributed for constructing 900 infiltration ponds in Djoebel and Ubalan catchment areas, where several PDAM springs are located showing degradation. To continue maintaining these, community groups established GPSA (Garda Penyelamat Sumberdaya Air/Community group association). PDAM measured that discharge increased from 18 lps to 45 lps. Microfinance for water resulted in 3,434 poor households obtaining access to PDAM water.

The program in sanitation sector focused on promotion of individual sanitation system with sanitarian and PNPM Mandiri. A total of 639 households now have improved septic tank and 405 of them are obtained through microfinance program. Also IUWASH facilitated Citizen Engagement Mechanism (CEM) through radio program. People can provide inputs during radio program (radio talk show).

Probolinggo Municipality

- Total Population (2014): 229,013 / Household (2014): 58,083
- Percent of Poor Household (2014): 8.37 %
- Population served by piped water (2015): 18,021
- Household with basic sanitation (2010): 32,975

After the Partnership Agreement was signed on 26 October 2011, IUWASH supported PDAM Probolinggo Municipality with NRW reduction, GIS/MIS, PDAM Customer Forum, development of business plan and new SOPs, financial aspect, and raw water protection program.

In sanitation, IUWASH with Health Office staff promoted individual sanitation system using triggering approach, capacity building for sanitarians and SME resulting in over 490 toilets built, using microfinance. For the communal system, IUWASH supported a IPAL communal in Pesantren An-Nur (moslem boarding school), combined with households around Pesantren, managed by the Pesantren. IUWASH also supported USRI with post construction activities by CBOs, for 1,193 households. Critical support was also provided to setup sanitation management unit (UPTD), including the regulation and of allocation Rp 55 Million (APBD 2016) to support UPTD operation and 5 year UPTD roadmap.

Malang Municipality

- Total Population (2014): 851,298 / Household (2014): 227,343
- Percent of Poor Household (2014): 4.80 %
- Population served by piped water (2015): 146,040
- Household with basic sanitation (2010): 154,085

IUWASH formal partnership with LG of Malang municipality started on 13 May 2014. While PDAM performance was already high (68%) IUWASH still supported NRW reduction, GIS/MIS, PDAM Customer Forum, and raw water protection program. In addition, IUWASH collaborated closely with PDAM Malang to show the best example for other PDAMs and obtain PDAM Kota Malang direct support, in the form of expert staff, on promoting GIS/MIS, for class room and field training, exchange visits and internship for other PDAMs.

In sanitation sector, IUWASH supported communal sanitation system and improved septage management through introduction of Regular Desludging (LLTT) Program. IUWASH supported USRI on post construction activities (strengthen CBOs on O&M, promoting new connection, receiving additional support from LG and community themselves to connect more households, etc). In total 1,990 households connected to communal system. For the Regular desludging program, IUWASH worked with LG and PDAM to introduce the regular desludging, including development of MIS system, septic tank sensus for 4,000 households, and technical review of the existing IPLT. MPWH agreed to finance new IPLT because existing IPLT will not be enough to serve all customers of Kota Malang.



PARTNERSHIP

10 PDAM partners (Maros, Takalar, Enrekang, Parepare, Sidrap, Pinrang, Bantaeng, Jeneponto, Ambon, Jayapura) Koperasi BMT Al-Azhar Maros
 6 Bappeda and PDAM partners (Bantaeng, Jeneponto, Parepare, Sidrap, Pinrang and Enrekang), Koperasi Denas 66, 8 PU Depart. partners (Kota Makassar, Parepare, Kab, Sidrap, Pinrang, Enrekang, Jeneponto, Takalar and kab. Bantaeng), DFAT/INDII, PU Depart. in Maros and Makassar, Satker Air Minum dan Sanitasi – PPK Air Limbah Prop. Maluku, UPTD PAL Makassar, 7 UPTD PAL Partners (Makassar, Maros, Pinrang, Bantaeng, Parepare, Ambon and Jayapura), “City Promotion Sanitation Team” (Sanrima – Maros and Prosinta – Makassar).

PROFILE

Indonesia Urban Water, Sanitation, and Hygiene (IUWASH) is a United States Agency for International Development (USAID)-funded project. IUWASH aims to develop access to safe drinking water and sanitation services for communities particularly low-income people in urban areas of Indonesia.

In South Sulawesi, Ambon and Jayapura, IUWASH works with twelve districts/municipalities: Bantaeng District, Enrekang District, Jayapura District, Jeneponto District, Maros District, Parepare District, Pinrang District, Sidrap District, Takalar District, Ambon City, Jayapura City and Makassar City.

SUMMARY ACHIEVEMENT

SOUTH SULAWESI EASTERN INDONESIA

PROGRAM RESULT



107,050 people

have obtained access to safe water supplies



\$ 7.8 million

in additional assistance has been leveraged from the Government of Indonesia and private sector



34,830 people

have gained access to improved sanitation facilities



11 Government institutions and CSOs implement WatSan programs



19,185 people

(33% of whom are women) have benefited from project training activities



11 Local Governments increased local budget (APBD) allocations and improved their policies to support improvements in WatSan sector



4 Local Government Established Citizen Engagement Mechanism (CEM) to support improvement of WASH sector



5 Local Government Waste Water Management Units established and operational

SOUTH SULAWESI & EASTERN INDONESIA



SOUTH SULAWESI

Pinrang District

- Total Population (2014): 364,087 people / Total Household (2014): 82,747
- Percent of Poor Household (2014): 8.20%
- Households served by piped water (2015): 4,343
- Household with basic sanitation (2010): 53,488

After the partnership agreement was signed on 23 October 2012, IUWASH supported PDAM with NRW reduction, production capacity improvement, GIS/MIS, tariff review, new SOPs development, microfinance, financial aspect and raw water protection program. At the start of IUWASH, PDAM Pinrang had very low performance. However all activities improved PDAM performance and by end of IUWASH they can provide better services to the people.

From the individual sanitation system, 59 poor households now have improved septic tank through microfinance program. Support to SANIMAS (IPAL communal and public toilet) benefited 205 households. A sanitation management unit (UPTD) was setup by LG to manage domestic wastewater systems and IUWASH supported the regulation as the legal basis. LG allocated Rp 12,8 Million from APBD 2016 to support UPTD operation and agreed on development of 5 year UPTD roadmap.

Parepare Municipality

- Total Population (2014): 136,903 people / Household (2014): 31,114
- Percent of Poor Household (2013): 8.88%
- Household served by piped water (2015): 18,905
- Household with basic sanitation (2010): 20,206

The Partnership agreement to support the improved WASH sector was signed on 16 November 2012. In water sector, IUWASH facilitated NRW reduction, energy efficiency, distribution network and production capacity improvement, GIS/MIS, tariff review, billing and accounting, raw water protection, new SOP development and financial aspect. A significant achievement was the GIS/MIS program, where now there is a faster complaint handling system because PDAM has good database of their customer and distribution network, and PDAM staff can easily find the problem and provide solution to the customer.

A significant achievement made in the communal sanitation system through support to SANIMAS/SLBM Program to optimize the use of IPAL communal constructed. There are 269 households benefiting from this program. IUWASH supported post construction activities by strengthening of CBOs on maintaining the IPAL communal and public toilet. Also IUWASH facilitated the Citizen Engagement Mechanism (CEM) through SMS gateway, which allows people to provide inputs to WASH improvement.

Enrekang District

- Total Population (2015): 198,194 people / Household (2014): 45,044
- Percent of Poor Household (2014): 13.90 %
- Population served by piped water (2015): 7,834
- Household with basic sanitation (2010): 24,014

After the Partnership Agreement was signed on 16 November 2012, IUWASH supported PDAM Enrekang with NRW reduction, production capacity improvement, GIS/MIS, tariff review, raw water protection, new SOPs, financial aspect and microfinance for water. IUWASH supported PDAM and LG to develop embung as climate change adaptation for raw water protection.

Sidrap District

- Total Population (2014): 286,610 people / Household (2014): 65,139
- Percent of Poor Household (2013): 5.82%
- Households served by piped water (2015): 7,502
- Household with basic sanitation (2010): 39,539

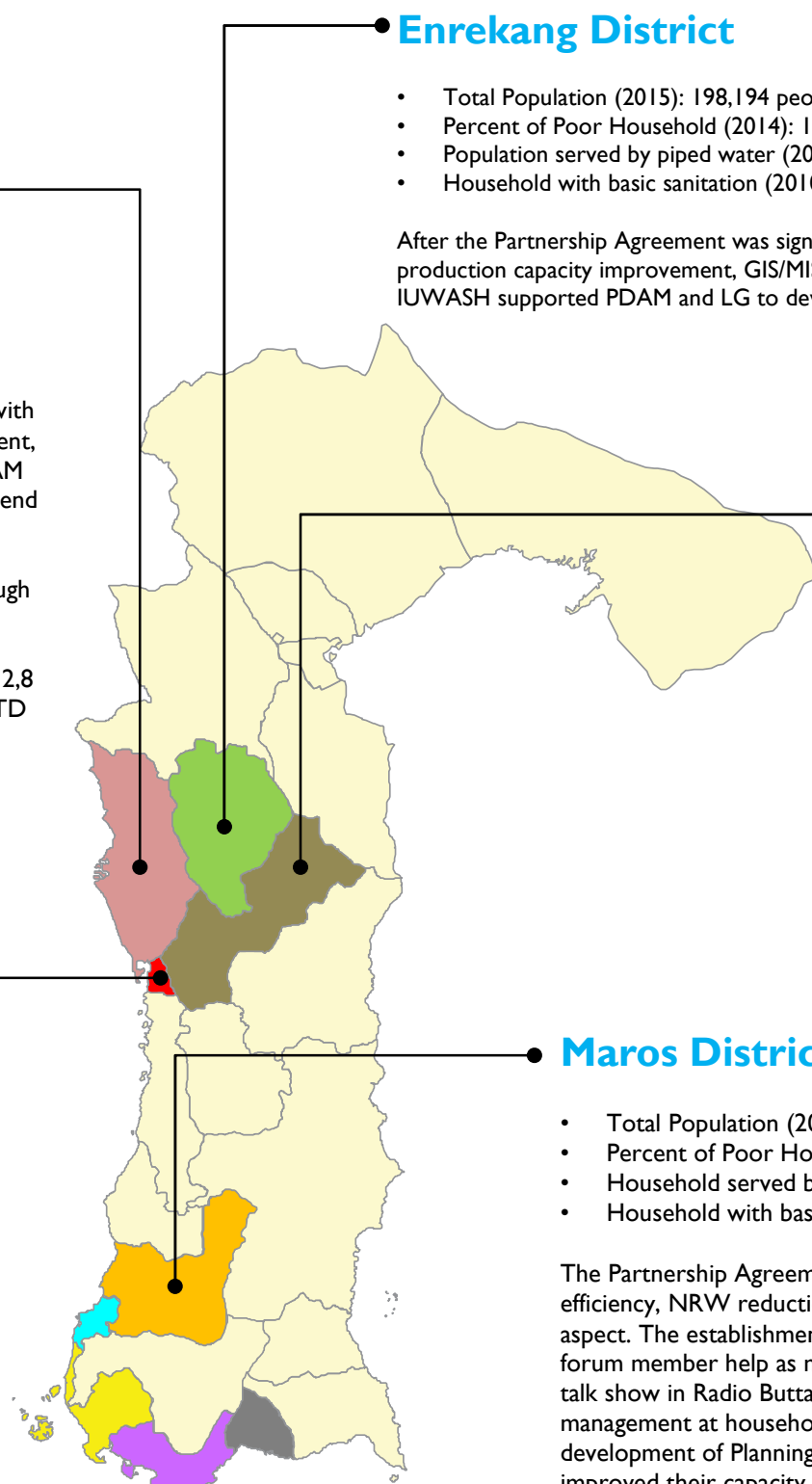
The LG signed Partnership Agreement on 22 October 2012 and provided TA on NRW reduction, production capacity improvement, GIS/MIS, tariff review, development of new SOPs, raw water protection, microfinance for water and financial aspect. The microfinance program helped 182 poor households to get safe water supply. In sanitation sector, IUWASH supported SANIMAS Program to optimize the use of IPAL communal constructed. There are 94 households benefiting from this program. IUWASH supported post construction activities by strengthening of CBOs to maintain the IPAL.

Maros District

- Total Population (2013): 335 596 people / Household (2014): 76,272
- Percent of Poor Household (2012): 11.93%
- Household served by piped water (2015): 14,693
- Household with basic sanitation (2010): 36,730

The Partnership Agreement was signed on 16 November 2011, followed by IUWASH support to PDAM for energy efficiency, NRW reduction, GIS/MIS, tariff review, PDAM Customer Forum, new SOPs development, and financial aspect. The establishment of PDAM Customer Forum contributed to the improved PDAM services because the forum member help as mediator and actively involved in promoting new PDAM tariff. The forum also has regular talk show in Radio Butta Saliwangan FM. The forum members conducted survey on gender aspect of water supply management at household level. IUWASH support also included gender mainstreaming of LG programs through development of Planning and Budgeting Responsive Gender, for which LG agencies working in WASH sector improved their capacity to develop Gender Budget Statement that is included in APBD budget submission.

In sanitation sector, IUWASH worked with local cooperative to implement microfinance for 48 households. Also the sanitation management unit (UPTD) was setup to manage domestic wastewater systems. IUWASH supported development of regulation and LG allocated Rp 7 Million from APBD 2016 to support UPTD operation and agreed on development of 5 year UPTD roadmap.



SOUTH SULAWESI & EASTERN INDONESIA



SOUTH SULAWESI

Makassar Municipality

- Total Population (2014): 1 429 242 people / Household (2014): 324,828
- Percent of Poor Household (2013): 4,48%
- Household served by piped water (2015): 162,984
- Household with basic sanitation (2010): 220,247

Partnership agreement was signed on 16 November 2011. IUWASH supported PDAM with distribution network improvement, and some new SOPs development. In sanitation, with strong support from Mayor Makassar, strong progress was made in development of communal and sewerage systems with almost 3,800 households connected. It culminated with the launching of regular desludging in August 2015 by the Vice Mayor. This integrates all sanitation systems under UPTD Makassar management.

The regular desludging (LLTT) now uses a GIS mapping & MIS system and promoted LLTT in housing estates, starting with septic tank census (for over 10,000 households) and intensive promotion campaigns, using a mobile truck and promotional materials. IUWASH supported a transparent payment and collection mechanism for LLTT by local KSM. IUWASH also supported UPTD and PEMDA to completing local Waste Water regulation and revision of PERDA on service fee for regular desludging.

Takalar District

- Total Population (2013): 283,762 people / Household (2014): 64,491
- Percent of Poor Household (2013): 9.62%
- Household served by piped water (2015): 14,848
- Household with basic sanitation (2010): 28,383

After signing a Partnership Agreement on 16 November 2011, IUWASH supported PDAM with NRW reduction, energy efficiency, distribution network and production capacity improvement, GIS/MIS, tariff review, SOP development, Customer Forum, financial aspect and microfinance programs. PDAM succeeded to develop debt restructuring plan, which was submitted to MoF. Microfinance program resulted in 21 poor households obtaining access to PDAM water.

In sanitation IUWASH collaborated with local cooperative to promote the individual sanitation system for 34 households of which 21 used microfinance. IUWASH supported SANIMAS Program to optimize the use of communal sanitation systems through for 350 households benefitting from improved public toilets and IPAL communal. IUWASH supported pre- and post construction activities by promotion and strengthening CBOs on maintaining the system and optimizing new connection.

Jeneponto District

- Total Population (2013): 353,287 people / Household (2014): 80,293
- Percent of Poor Household (2013): 15.31%
- Household served by piped water (2015): 8,510
- Household with basic sanitation (2010): 23,024

IUWASH started support after signing a partnership agreement on 16 November 2011. PDAM received TA on energy efficiency, NRW reduction, production capacity improvement, GIS/MIS, tariff review, raw water protection, SOP development, microfinance for water and financial aspect. Microfinance program uses PDAM funding and worked with local cooperative (Kopass Utama), to reach 303 poor households. PDAM also developed debt restructuring plan which has been submitted to MoF.

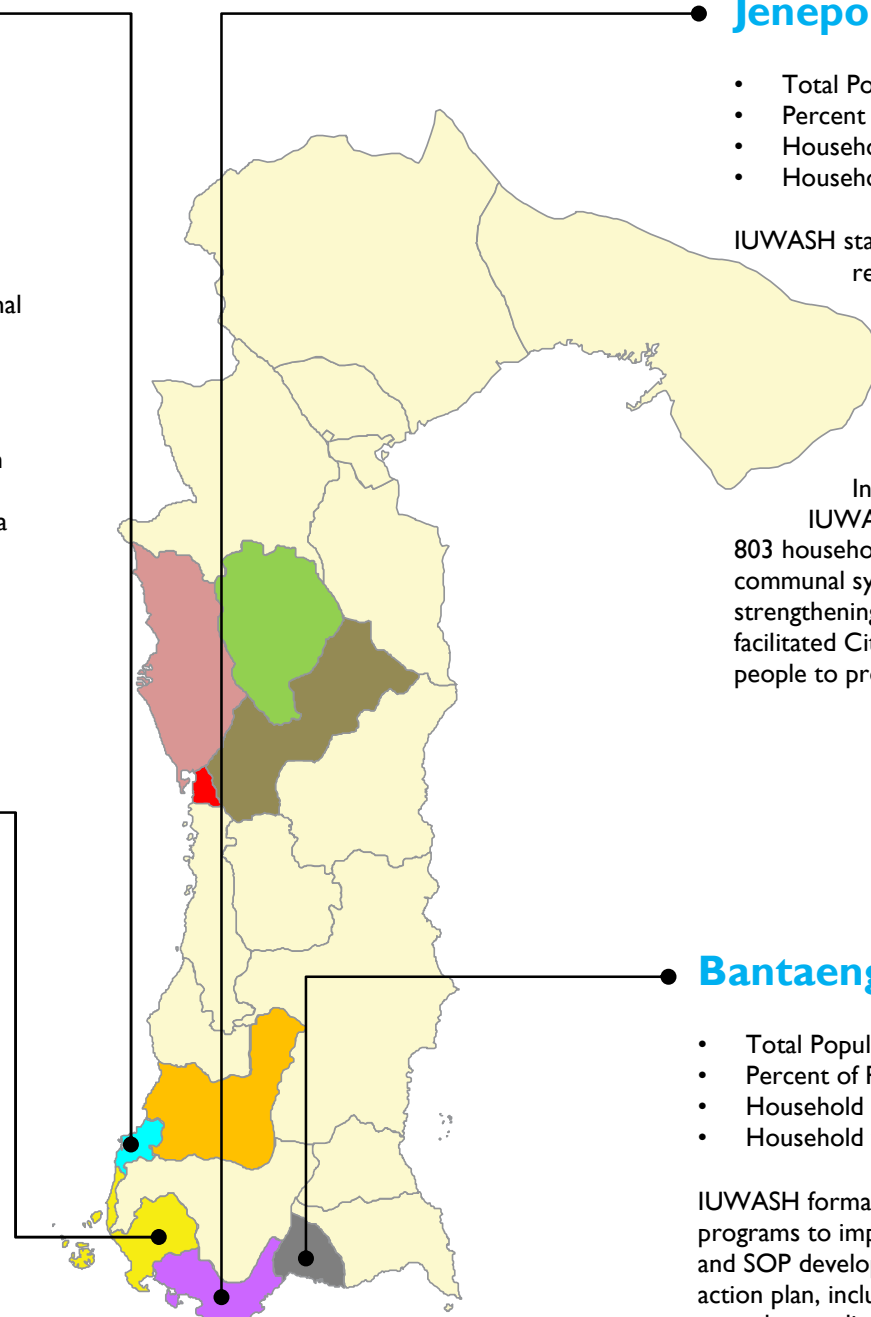
In sanitation the Mayor has strong commitment to implement STBM program and IUWASH conducted capacity building for sanitarians and SME to support this, resulting in 803 households with improved septic tanks. IUWASH supported SANIMAS to optimize the communal system for 309 households. IUWASH supported post construction activities by strengthening of CBOs on maintaining the IPAL communal and public toilet. Also IUWASH facilitated Citizen Engagement Mechanism (CEM) through SMS gateway. This mechanism allows people to provide inputs to the improvement of WASH sector.

Bantaeng District

- Total Population (2013): 182,283 people / Household (2014): 41,428
- Percent of Poor Household (2013): 9.68%
- Household served by piped water (2015): 11,977
- Household with basic sanitation (2010): 15,564

IUWASH formal partnership with LG Bantaeng district started on 24 October 2012. Key programs to improve performance of PDAM included reducing NRW, GIS/MIS, business plan and SOP development, tariff review, financial aspect and adoption of a climate change adaptation action plan, including construction of infiltration ponds in Kampala village; the village government agreed to replicate this program using village development funding.

In sanitation sector, IUWASH supported SANIMAS to optimize the use of IPAL communal constructed for 419 households benefitting from these systems. IUWASH supported post construction activities by strengthening of CBOs on maintaining the IPAL communal.



SOUTH SULAWESI & EASTERN INDONESIA



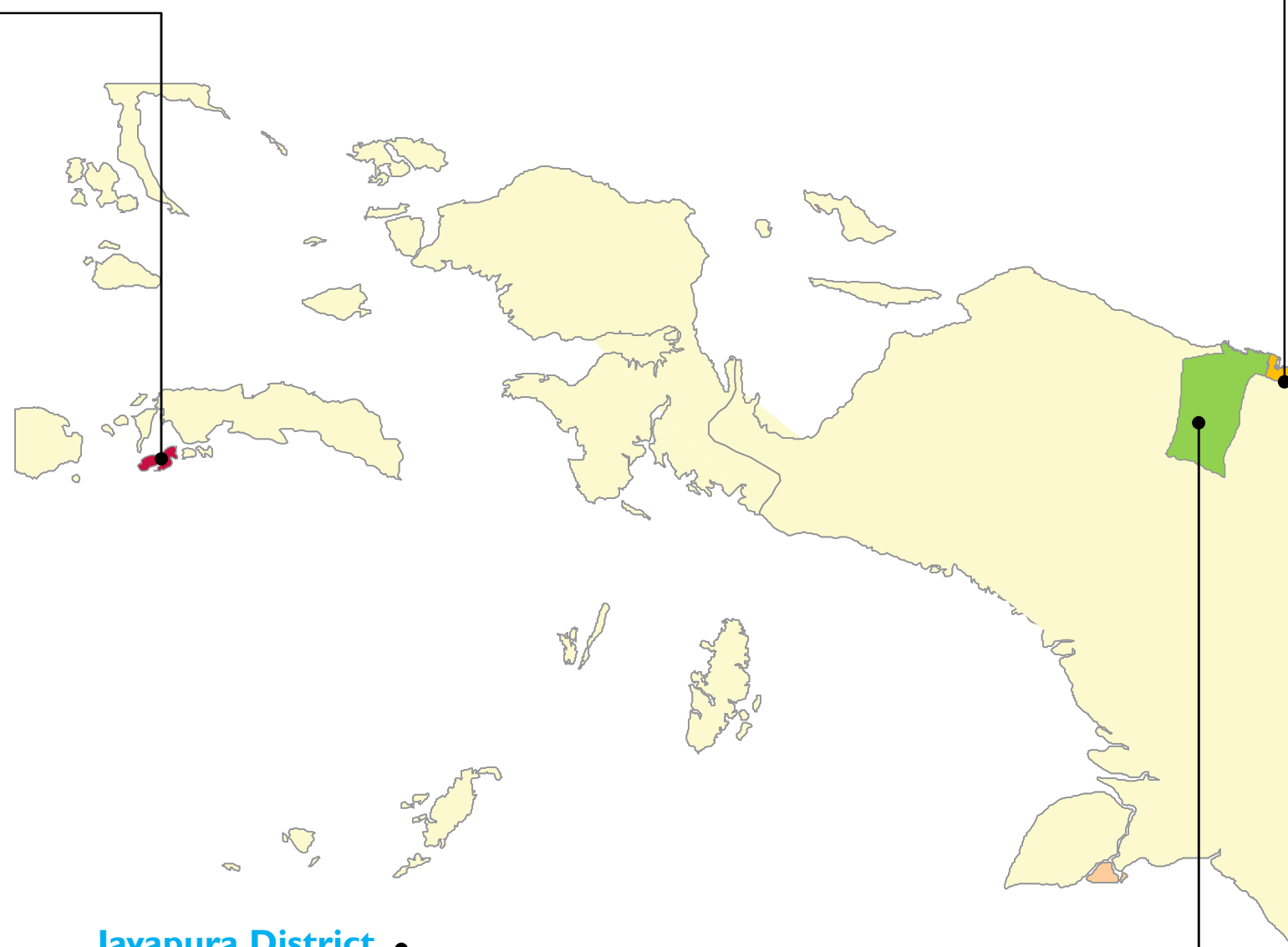
EASTERN INDONESIA

Ambon Municipality

- Total Population (2015): 395,423 people / Household (2014): 91,117
- Percent of Poor Household (2014): 4.42%
- Population served by piped water (2015): 10,505
- Household with basic sanitation (2010): 50,144

The partnership started on 7 September 2011 and key programs on PDAM Performance improvement included NRW reduction and financial aspect of PDAM operation. IUWASH supported PDAM to leverage funding from Central Government to construct WTP Waytone (35 lps) and Wayheru (20 lps), which combined will connect approximately 8,000 households in Negeri Passo area. IUWASH developed complete DED, conducted advocacy to relevant institutions included Sat-Ker MPWH of Maluku province and developed financial requirement. All the construction was done in 2015.

In sanitation, IUWASH worked closely with WASH LG agencies to develop the sanitation master plan and initiated improvements to the communal sanitation system constructed by SANIMAS. IUWASH supported LG and sAIG Program to develop small sewerage systems in the city. Facilitated by IUWASH, LG of Kota Ambon established UPTD to be responsible on domestic wastewater management in the city. A regulation was developed including human resources and 5 years roadmap.



Jayapura District

- Total Population (2015): 119,383 people / Household (2011): 20,389
- Percent of Poor Household (2014): 17.58%
- Population served by piped water (2015): see data of Jayapura Municipality
- Household with basic sanitation (2010): 12,905

IUWASH partnership with LG started on 15 August 2011. Since PDAM Jayapura service Jayapura municipality and district it is already explained above. In the sanitation sector, IUWASH supported the update of the SSK (city-wide sanitation strategy) as the basis for implementation sanitation program in the district. Also, IUWASH conducted strengthening of WASH Working Group to support the implementation of sanitation program in Jayapura district.

Jayapura Municipality

- Total Population (2015): 275,694 people / Household (2011): 20,275
- Percent of Poor Household (2014): 16.19%
- Population served by piped water (2015): 29,221 (including Jayapura district)
- Household with basic sanitation (2010): 40,046

IUWASH formal partnership with Jayapura municipality started on 15 August 2011. Key TA programs with PDAM were in NRW reduction, distribution network improvement, billing and accounting, PDAM Customer Forum, financial aspect, business plan and new SOPs development and financial aspect. A big problem of PDAM Jayapura is leaking piping system due to old pipe and illegal connection resulting in high NRW. IUWASH supported regulation against illegal connections and arranged partnership of PDAM and Police to use law enforcement to reduce the illegal connection. Another effort is replacing pipes and meter so PDAM can have better distribution system to reduce the illegal connection.

In sanitation, IUWASH worked closely with LG to update their city-wide sanitation strategy as the basis of implementation of sanitation program in the city. IUWASH also collaborated with Sat-Ker MPWH to construct a communal system in Hamadi area benefiting 109 households. IUWASH promote the sustainable sanitation framework and the regular desludging program to LG agencies and they agreed to establish this system in the city. To support this, the Vice Mayor approached several private sector companies to support this and to make improve CSR program implementation. IUWASH supported the development of CSR Forum in Kota Jayapura as well as the sanitation management unit (UPTD) to be responsible for managing domestic wastewater system. LG committed funding Rp. 5,1 Billion (APBN 2016) to operate UPTD and agreed on the 5 year roadmap to guide further operation of the UPTD.

Section 4

NATIONAL ACTIVITIES AND EVENTS

INTRODUCTION

Since its inception, IUWASH has relied for its success on the effectiveness of its technical work, the strength of its institutional relationships, and as critically, the financial management, administrative, and other support systems upon which most else depends. In this section we present a more detailed account of activities and achievements at the national level within some of these primary support areas, including: general program management, project communications, monitoring and evaluation, and environmental compliance.

I. GENERAL PROGRAM MANAGEMENT

Upon inception, IUWASH put into place a management structure that would: provide for strong technical and managerial coverage at all levels (local, regional and national); ensure strong communication and linkages between staff and with partner institutions; and ensure a high degree of flexibility to respond to changing needs and the demand-driven nature of the program.

A. Program Operations: In terms of operations, this involved:

- **National Office:** The Jakarta office served as the IUWASH headquarters and managed relationships and reporting to USAID and central government counterparts. It also served as the base of operations for IUWASH's designated key personnel, senior technical specialists, and finance and administrative personnel, all of whom worked closely with the project's regional teams.
- **Regional Offices:** IUWASH regional offices were located in Medan, Jakarta (covering West Java, Jakarta and Banten), Semarang, Surabaya, and Makassar. These offices served as primary implementation centers for all assistance provided to the local level, and each oversaw programming for about 11 municipalities (see Table 34 for list of IUWASH assisted cities). Regional offices were led by senior Indonesian experts (Regional Coordinators or "RCs") and were responsible for day-to-day activity implementation and direct interface with provincial and local partners.

Table 34: IUWASH Locations in 5 Regions

North Sumatra	West Java, Jakarta, Banten	Central Java	East Java	South Sulawesi/East Indonesia
<ul style="list-style-type: none"> • Medan city • Binjai city • Langkat district • Pematang Siantar • Tanjung Balai city • Tebing Tinggi city • Sibolga city • Asahan district • Labuhanbatu dist. 	<ul style="list-style-type: none"> • Bekasi city • Bekasi district • Bogor city • Karawang dist. • Lebak district • Serang district • Tangerang dist. • DKI Jakarta • Bandung district • Purwakarta dist. • Tang. Sel. city 	<ul style="list-style-type: none"> • Semarang city • Semarang dist. • Kendal district • Kudus district • Surakarta city • Salatiga city • Rembang dist. • Sukoharjo dist. • Klaten district • Batang district 	<ul style="list-style-type: none"> • Gresik district • Lamongan dist. • Mojokerto dist. • Probolinggo dist. • Sidoarjo district • Surabaya city • Mojokerto city • Probolinggo city • Jombang dist. • Malang city • Malang district • Batu city 	<ul style="list-style-type: none"> • Ambon city • Jayapura city • Jayapura district • Jeneponto • Makassar city • Maros district • Takalar district • Parepare • Enrekang • Pinrang district • Sidrap district • Bantaeng district
Total = 9	Total = 11	Total = 10	Total = 12	Total = 12

- **LG Offices:** Using the regional offices as programmatic support platforms and reporting hubs, IUWASH also posted 37 City Coordinators (CCs) among the 54 partner municipalities (with each CC assigned to one or two municipalities so that each municipality had one CC associated with it). Embedded within local governmental partner institutions, they oversaw local-level project workplanning, ensured strong communications with other IUWASH offices and provided hands-on support in activity development and implementation.
- **DAI Home Office:** The above was further supported by the DAI Home Office which has more than 38 years of experience in supporting long-term, complex development programs in Indonesia. Under IUWASH, the DAI Home Office provided critical support in: project start-up and close-down; recruitment and HR matters; general project management (IT, administration, finance, procurement and contract management); and technical assistance in municipal and project finance, governance, monitoring and evaluation, reporting, and other areas. It further led formal quarterly reviews with senior project managers regarding the project status and issues across a wide range of areas as well as semi-annual “client satisfaction” reviews with the USAID COR.

Importantly, and due to the technical complexity and geographic span of IUWASH, the project adopted a “matrix management” approach to project implementation. Simply put, matrix management calls for managing individuals through two reporting lines—on which corresponds to more traditional hierarchical (or vertical) organizational systems and another focused on ensuring technical exchange and a degree of standardization within areas of specialization and (horizontally) across multiple geographic locations).

During the last six months of the program, IUWASH managers undertook numerous activities to ensure that the program would complete its required work and close as smoothly as possible. Among a wide variety of actions, this entailed the development of a detailed Demobilization Plan, the disposition of Non-Expendable Property (NXP) and expendable items from all program locations, several internal audits of files, as well as the staggered closure of offices and conclusion of staff and consultant contracts.

B. Management Support Systems:

In support of the above, IUWASH also put into place several management support systems to ensure that the project remained on track for meeting project goals and objectives. These are described as follows:

- Planning and Coordination:** Central to the ability of any effort such as IUWASH to reach its intended targets is its success in developing appropriate plans, engaging with key partners and making adjustments to its plans based on critical partner information and feedback. Some key forums for making this happen were as follows:
 - **Tim Teknis:** The Technical Team (Tim Teknis) served as the project’s steering committee. It was chaired by Bappenas with membership including the Ministries of Public Works (PUPR), Health, Finance, Interior, Women’s Empowerment, and Environment. The Tim Teknis met approximately quarterly to review project achievements, problems or issues encountered and provide guidance and direction on how to adjust its programming to meet GOI expectations in addition to the USAID requirements.
 - **Annual Workplan Development:** All project technical specialists and key admin./finance staff gathered for several days to review the status of activities and develop or refine strategies and plans to guide implementation in the coming year. The result was an Annual Workplan which was presented to USAID for formal review and approval.
 - **Quarterly Regional Coordinator (RCs) Meetings:** Approximately quarterly, senior project managers and RCs met to review issues (programmatic, administrative, etc.) related to the implementation of the Annual Workplans and plan for the coming months. Due to multiple adjustments in the project’s schedule for PY6, no such RC meetings were held, but in earlier years

they provided a critical platform for information exchange, the refinement of various approaches, and the development of common strategies to implementation across the project’s broad geographic area.

- USAID Bi-Weekly Meetings:** Initially on a weekly basis, senior project management also met regularly (generally once every two weeks) with the USAID COR to review in-depth scheduled events, the status of program activities, important administrative issues, and to identify and respond to pressing issues. Such meetings were critical to keeping the project on track and ensuring that information was being appropriately shared with USAID.
- Other Coordination Forums:** Though too numerous to list, these included a wide range of other internal and external working groups, recurring or special meetings, workshops, exchange visits and other opportunities to exchange information and adjust and synchronize sector programming. Examples include: the USAID WASH Partners Group (which brought together all sector programs funded by USAID and which was chaired by IUWASH); the Sanitation Partners Group (a national forum chaired by WSP); an LLTT group that IUWASH established to maintain progress in septage management; the Jaringan, a group established under Pokja-AMPL to ensure a regular exchange of experience among sector agencies; etc.

In the final six months of the program, a Tim Teknis meeting was held with a particular focus on the project’s exit strategy and need for concluding work on several documents and other various knowledge management initiatives. Multiple other forums provided further opportunities for coordination, especially with regards to sanitation development (and especially in the areas of urban sanitation promotion, sanitation institutional development and the establishment of septage management services).

- ii. Information Technology and TAMIS:** Though information technology (IT) in the context of international development assistance generally refers to various stand-alone systems for text editing, computation, presentations, etc.), DAI programs are somewhat unique in that they deploy a proprietary program called Technical Assistance Management Information System (TAMIS). This system is essentially a suite of databases that are linked together across staff and locations via the web.

While the TAMIS needs to be tailored to each project to account for differing organizational structures, goals, objectives etc., as under IUWASH, they typically have modules for developing and/or recording: the PMP (see below); approved workplans which link to the PMP; program activities and activity SOWs/budgets based on approved workplans; staff travel based on approved the archival of project reports; the stor and workplan; and many other areas. This allows for multi-office interaction, multilayered monitoring and evaluation, and collaborative planning and information sharing among staff at all levels. A tremendous advantage of the TAMIS for IUWASH is that, with multiple teams operating in multiple locations, tracking and reporting requirements become a shared responsibility. Because everyone on the team taps into a central database and uses it in day-to-day management, as data are entered in one location, they are automatically aggregated with data from all locations, substantially reducing the burden on management staff for data collection. A ‘screenshot’ of one small part of the IUWASH TAMIS is provided in Figure 11 below.

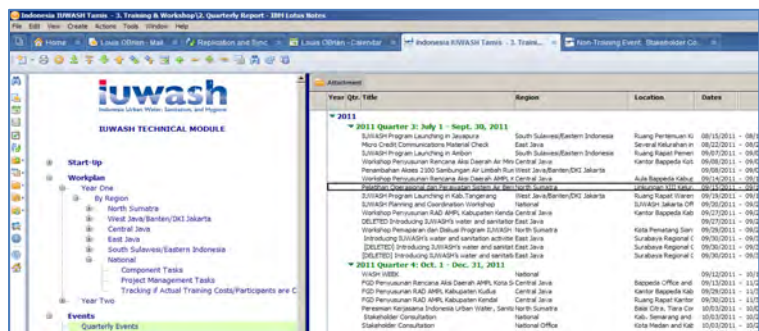


Figure 11 : Screenshot Sample of the IUWASH TAMIS

Throughout the course of IUWASH implementation, the supporting TAMIS has been refined and adjusted to best respond to project needs, including annual adjustments to accommodate the project's annual workplans. Such refinements continued in PY6 with particular attention paid to: a) adjusting targets in accordance with a contract modification concluded in December 2015 and b) the archiving of documents and data so that it can be available and easily accessible well after the project's close.

In addition to the above, IUWASH also became involved in the development of several mobile phone "apps" which were used in support of surveying, especially by local partners involved in the development of septage management systems.

iii. **Audits and Evaluations:** Responding to contract and other special requirements, IUWASH was also the subject of multiple outside evaluation and audits. These included:

- **Mid-Term Evaluation:** This was conducted by a team of five (5) outside specialists, including three independent consultants and two USAID/Washington staff, over a period of about three months and included one month of field work to visit sites, interview project stakeholders, review documentation, etc. It resulted in several recommendations and ultimately changes in project strategy, especially as concerns sanitation and related BCC programming.
- **Regional Inspector General (RIG) Performance Audit:** This was conducted by a team of two RIG auditors with the purpose of reviewing the definitions of project indicators as set forth in the PMP, the methodology and accuracy of data collection, and specific activities that could be improved. Among several issues, it identified some community-based programs (in sewerage and septage management) that required additional attention and that were subsequently the subject of additional works over an approximate one-year period.
- **Final Evaluation:** This was undertaken by a team of four (4) outside experts (assisted by two USAID/Washington staff) with the purpose of reviewing the success and potential impact of IUWASH. It had a special focus on assessing the the project's work in knowledge management and, more specifically, in: informing policy; improving program development; and increasing implementation capacity. Several recommendations were issued which would be of use to any USAID follow-on or other programs.
- **GOI Monitoring Trips:** Though not undertaken in PY5 or PY6, the designated agency in the GOI which was overseeing IUWASH and other USAID programming, Menkokesra, visited project sites approximately annually to review the project's status and related issues. Though specific monitoring trips were not undertaken in the program's latter years, the project did substantially involve GOI counterparts at the national level in numerous regional-level activities, as well as throughout the close-out process and specifically in most all close-out events.
- **Internal Audits:** In addition to the above, DAI periodically conducted internal audits of especially the project administrative and finance.

In the final six months of the program, the project completed the fourth revision of the PMP and also undertook the Final Evaluation exercise discussed above and which is the subject of a detailed report to be made available on the USAID DEC.

2. PROJECT COMMUNICATIONS

Project communications in the context of IUWASH has represented a suite of approaches and products designed to meet contractual deliverables while stimulating stakeholder awareness and support for improved and expanded service delivery. Project communications encompass project publications, media engagement and the organization of special events to relate program results, best practices and lessons learned in a professional manner to a broad Indonesian and international audience.

A. Project Reports and Publications: This consists of required periodic Monthly, Quarterly and Annual reports, technical reports reports on required under the IUWASH contract and

- **Project Reports (Monthly, Quarterly and Annual):** Listed as deliverables under the IUWASH contract, the project produced six Annual Workplans and twenty Quarterly Progress Reports (QPRs) or Annual Progress Reports (APRs), including this current report. These provided an update on achievements, a summary of the approaches followed in each outcome or task area (in accordance with the PMP), and a detailed listing of activities, outputs and outcomes. These further presented detail on activities undertaken at each level of program operations (national, regional and local), noting that detailed tasks by partner municipality were discontinued after the first three years of the project. These required reports were complemented by Monthly Reports which provided brief, bulleted summaries of key activities undertaken and planned in each geographic and technical area, as well as Monthly Highlights which generally involves two brief stories of more noteworthy events.

During the last six months of IUWASH, the Program Communications Team oversaw the development of a wide range of project reports which involved support in the production and distribution of IUWASH Monthly Reports, Monthly Highlights, as well as the project's Final Evaluation Report and this Final Report.

As required, all reports and other publications designated as contract deliverables have been uploaded to the USAID DEC with DAI Home Office support.

- **Other Publications:** This includes a very wide range of other communications or knowledge management “products” which are used directly in the implementation of specific activities (such as training manuals and IEC materials) or are critical to sharing project approaches and experience. The final six months of IUWASH saw a very concerted effort to complete a wide range of such products, including:
 - Report on Evaluation of Household Septic Tank Performance;
 - Summary Report on the CCVAP for 16 locations, etc.;
 - Five (5) booklets covering Best Practices from each of the project's five regions: North Sumatra, East Java, Central Java, West Java/DKI Jakarta/Banten, and South Sulawesi / East Indonesia;
 - Manual for the Construction of Household or “On-site” Wastewater Management (SPAL-DP) Systems;



- Manual for the Construction of Communal or “Off-site” Domestic Wastewater Management (SPAL-DP) Systems;
- Flipchart for the construction of Household or “On-site” Wastewater Management Systems;
- Flipchart for the construction of Communal or “Off-site” Wastewater Management Systems;
- Five-volume Urban Sanitation Toolkit;
- Regular Desludging or LLTT Toolkit;
- Climate Change Vulnerability Adaptation/CCVA Toolkit and Training Module;
- Training Manual for “Sanitation Entrepreneurs” involved in sanitation system construction;
- Compendium of Lessons Learned: PDAM Customer Communications Forums;
- Compendium of Lessons Learned: Corporate Social Responsibility (CSR) for WASH;
- Manual providing a “Blueprint” for MIS/IT development for PDAM Tirtanadi, North Sumatra.



Acting Governor of North Sumatra, Erry Nuradi formally closed the IUWASH program in the region on January 19, 2016, and as witnessed by BAPPENAS, USAID Indonesia, US Counsel General in Medan, the Mayors or District Heads of all nine LGs partners and other IUWASH partners.

To ensure broad dissemination of the above, the above have been widely distributed and have also been made available on the IUWASH website (<http://iuwash.or.id/>).

B. Special Events: This consists of support offered to a range of events that generally involve high-level representation of USAID an/or program partners. Those events of note during the project’s final six months included:

- Project closing events in the project’s five regions, including: North Sumatra (on January 19, 2016); SSEI (Ambon on January 28, Jayapura on February 4 and Makassar on February 23); East Java (on March 1-3); Central Java (on March 15); WJDB (on April 14); and the National Office (on May 11, 2016).
- A two-week workshop on ‘Urban Septage Management’ held January 18-29, 2016 as part of Regular Desludging or LLTT Toolkit development. The workshop involved the Ministry of Public Works and Public Housing, PD PAL Jaya, DKP Bogor, IPLT Tegal Gundil Bogor, Disbangkim Bekasi, IPLT Bantar Gebang Bekasi and IPLT Pulo Gebang North Jakarta. Field visits were also conducted to review the: designs of septage/sludge treatment plants; important institutional and finance issues; health and safety measures for septage management staff, etc. This Toolkit is expected to greatly facilitate the process that LGs must necessarily go through to improve septage management services.

- Inauguration of Master Meter system in Tanah Merah, North Jakarta held on February 2, 2016. Through the system, 250 households in the neighborhood are now able to enjoy clean, piped water and bid farewell to expensive water they used to buy from local vendors at Rp 6,000 per 20-liter jerry cans. IUWASH in collaboration with PD PAM Jaya and PT. Aetra have installed other Master Meter systems in three areas include Cilincing and Pulogebang in East Jakarta and Rawa Buaya in West Jakarta. Considered as informal residents in those areas, the households had never before been able to enjoy PD PAM Jaya services.



Inauguration of Master Meter system in RW 22 Tanah Merah, Jakarta held on February 2, 2016. (DAII TV).

- A national workshop on the Microfinance in the WASH sector was held on February 10 and drew participants from the GOI, development programs, NGOs and numerous IUWASH partners. The workshop provided a forum for reviewing experiences under IUWASH as well as from other agencies (such as Water.Org), identifying key issues and gaps in the development of microfinance programs, and developing an improved understanding of required next steps to further promote this important means by which access to WASH services can be significantly expanded.



ALAM WIJAYA/ IUWASH WJDB

Mayor of Bekasi, Rahmat Effendi launched the WTP Teluk Buyung construction on March 10, 2016, accompanied by USAID Indonesia's Climate, Water and Energy Team Lead, Brian Dusza, the Head of City Legislative Council (DPRD) Bekasi, H. Tumai and other partners.

- A groundbreaking ceremony held on March 10, 2016 to start the construction of a much needed Water Treatment Plant (WTP) in the Teluk Buyung area of Bekasi City. According to the Director of Tirta Patriot Water Utility of Bekasi, HENDY IRAWAN, the WTP Teluk Buyung with capacity of 200 liter per second will serve 18,000 households once it is in operation (planned for January 2017). IUWASH supported Tirta Patriot Water Utility on fulfilling the 'readiness criteria' to be able to leverage resources from the LG budget (or APBD) of Bekasi in the amount of IDR 18.9 Billion. Mayor Rahmat Effendi appreciated the partnership and hoped that the WTP will help Tirta Patriot expand its services to many areas, and especially Kranji, Bintara, Summarecon Bekasi.
- A national workshop on Corporate Social Responsibility (CSR) was held on April 07 to mark the strong partnerships developed with the private sector by LGs and communities under IUWASH. While this highlighted the project's partnerships with companies such as Coca-Cola (CCFI) and Nestle, it was especially focused on the results of IUWASH support to six LGs and which was designed to assist them in developing local "CSR Forums" which then engaged with local companies to channel CSR support to WASH services. During the workshop, a 'WASH Marketplace' was also established for prospective companies to see the types of activities they

could support. As part of this workshop, a CSR Lessons Learned Book developed by IUWASH, Bappenas and Pokja AMPL was handed over to CSR Forum members by the Director of Housing and Settlement at BAPPENAS, Nugroho Tri Utomo and the Director of Environment Office at USAID Indonesia, John Hansen.

- Co-sponsorship of the Indonesia Water and Waste Water Expo and Forum or IWWEF. Organized by PERPAMSI in Jakarta Convention Center from May 03-04, more than 50 water utilities and private companies attended to support the GOI towards achieving the Universal Access 100-0-100 target by 2019. IUWASH presented some successful programs such on the Climate Change Vulnerability Adaptation; the development of Customer Communication Forum for water utility; and Urban Waste Water Management on the first and second day of the event

Other support provided by Communications Team staff in the project's final months was directed at the following:

- U.S. Foreign Assistance Resources (F) Team/Washington visit to Master Meter program site in Pulo Gebang, North Jakarta on April 26, 2016.
- A media “expedition” (see below) visit to Master Meter site in Sibolga, North Sumatra which involved eight TV/printed media to commemorate the World Water Day on March 22, 2016, then promoted the resulting media coverage on IUWASH Facebook Page and Twitter.
- IUWASH article for the USAID Global Water online magazine, published on the World Water Day, March 22. The article can be viewed here: <https://medium.com/usaaid-global-waters/making-sanitation-services-affordable-in-indonesia-s-cities-5a2621014c1f#.m4p8gbn14>.
- A visit of USAID PRESTASI scholars to IUWASH-supported sites in Bekasi (the site of a future WTP or IPA in Teluk Buyung, and the Communal Waste Water Treatment Plant or IPAL in Margamulya village.
- Supporting materials for various trainings, including those related to PDAM Energy Efficiency (5 workshops), PDAM Performance Index and CWL (8 trainings), CCVAP (8 trainings) and ToT on Urban Sanitation Promotion and UPTD (11 trainings/events).
- Multiple items in support of the project's participation in the IWWEF.

C. Media Engagement: IUWASH recognized from inception that how people think about the water supply and sanitation sector is very much shaped by how related issues are portrayed in television, radio, newspapers, social and other forms of media. The influence that media has is powerful both in the “upstream” of sector development by highlighting key issues and events for policymakers, and in the “downstream” by contributing to public perceptions of their own role in sector development. Through building a network with national and local level media outlets, IUWASH has done much to raise the visibility of the sector at multiple levels. The following sets forth the project's media engagement activities as concerns print and electronic media as well as social media.

- **Print and Electronic Media:** The following are some of the more noteworthy activities undertaken by the project in terms of media relations and advocacy during the reporting period:
 - In preparation for World Water Day, a “Media Expedition” was conducted with members of local and national media outlets to Sibolga, North Sumatra to provide journalists with a deeper understanding of local WASH issues, with a particular focus on Master Meter programs.
 - Print and electronic media figured prominently in the projects Close-Out events across all locations, and the importance of the media was specifically highlighted in the final event at the national level during which key media representatives discussed in a “talk show” format the role of media in sector advocacy and how it could be further enhanced.
 - A special program in support of World Water Day was broadcast on the show “Halo Indonesia” on DAIL-TV and featured IUWASH senior manager, Alifah Lestari, and senior technical specialist, Tofikurochman Achmad, who spoke about general issues affecting the sector, as well as Master Meter programming.

- Metro TV aired specials on both infiltration pond development in Batang district (February 8) and wastewater management (April 28).
- Media representatives also attended and provided subsequent coverage following a wide range of other IUWASH-sponsored activities, including those related to CSR, Microfinance and many others.

Media Workshops and Expeditions – A Best Practice for Increasing Media Coverage of Sector Issues

Truth be told, many Indonesian journalists are severely under-resourced. They often have very limited travel budgets, are assigned to cover specific events only, and have very little opportunity to research issues beyond a fairly superficial level. This can lead to important misunderstandings, misrepresentations and an over-simplification of the issues they address. In response, IUWASH has organized many “Media Exposure Workshops” and “Media Expeditions” to bring groups of journalists together to:

- Present them with detailed reviews of specific sector issues by national experts;
- Meet with and interview local and national leaders to hear first hand their perspectives, goals and challenges;
- Visit key sites (catchment areas, water treatment plants, etc.) and meet with and interview local site managers to better understand how these sites function; and
- Meet with and interview community level stakeholders.

The metrics for measuring the impact of such Workshops and Expeditions focuses on the number of articles or broadcasts produced, and by all accounts, coverage by media of IUWASH programming and sector issues following such events has been pronounced (often resulting in 20 or more articles in various publications, multiple TV broadcasts and increased social media postings. Moreover, and based on informal tracking, journalists who participate in such events tend to remain interested in the topics, share ideas and experience among themselves, and make use of their new professional contacts to cross-check information and develop new stories.

- **Social Media:** Recognizing the increasing role that social media plays in information sharing and management, IUWASH has continued to place emphasis on the use of related resources such as Facebook, Twitter, YouTube, etc. By May of 2016, IUWASH Facebook Page had 820 “fans” with posts reaching close to 3,000 every month (see below graphic). Among posts that IUWASH shared via Facebook, news articles and video links to media coverage have been especially popular—and perhaps indicate the public’s preference for ‘visual’ content.

Twitter is also among the platforms used by IUWASH to engage public. Its Twitter account (@airsanitasi) had 352 followers as of May 2016 with active discussion of trending or event-based topics being among the more popular ‘tweets’.

To ensure broad sharing and dissemination of IUWASH-developed videos and televised coverage of project-related events and features, IUWASH has also made much use of its YouTube account (at <https://www.youtube.com/user/IUWASH1/videos>).

3. MONITORING AND EVALUATION

Understanding the importance of the adage “If you can’t measure it, you can’t manage it,” IUWASH places strong emphasis on program monitoring and evaluation. This emphasis is embodied in the project’s Performance Monitoring Plan (PMP), a strategic tool used in monitoring project performance vis-à-vis the project’s intended results and deliverables. The PMP is not only important in and of itself; it also provides the basis for workplan development, reporting and many other key functions. The IUWASH M&E system is further bolstered by the project’s TAMIS (see above) and a host of data collection tools. All the data posted in TAMIS is reviewed regularly and verified before being formally reported. Over the course of IUWASH, some highlights in terms of the project’s M&E system are as follows:

- Development of IUWASH Performance Monitoring Plan (PMP):** The IUWASH PMP is a contract deliverable (see Section C.9.3 of the IUWASH contract), and the first version was developed in April 2011. After the first year of project implementation, and in light of several lessons learned during that time, IUWASH made revisions to this document and issued a second version that received approval from USAID in May 2012. A third version of the IUWASH PMP was made in response to a contract modification and was approved in July 2014. A final version was developed and approved by USAID in March 2016, also largely in response to a contract modification.
- PMP Modules in TAMIS:** As discussed above, TAMIS is a key management tool that serves project managers in meeting **complex information management and monitoring needs**. TAMIS integrates workplan management, impact and performance monitoring, and project administration into an easy-to-use information system. The IUWASH TAMIS includes a specific module related to the PMP and has been regularly modified and updated based on need, including those related to contract and PMP modifications noted above.
- Tracking and Reporting of Outcomes:** The registration of outcomes by responsible staff members is done primarily in TAMIS and as soon as such outcomes are verified (and within which relevant supporting documents are attached). Overall results further verified and compiled by the M&E team in accordance with reporting schedules (quarterly and annually). Among the project's 26 outcomes, some are reported on quarterly and some semi-annually. Data is also preserved in various formats (as E-files in the TAMIS database; as E-files in the project's Common Drive; and in hardcopy in the locked PMP file cabinet). Though largely automated, this process does require close monitoring and regular staff training. It further requires close coordination between the M&E team and both technical and administrative managers and staff to ensure adherence to all relevant protocols and schedules.
- Household Surveying:** Among the 26 IUWASH outcomes, three (3) are reported on based on the results of household surveys. These surveys are designed to collect data in support of Outcome HR-3 (on the per unit cost of water), MD-4 (on hygiene behavior) and IC-7 (satisfaction of the poor with WASH services). It can be noted that data for the latter (IC-7) is collected within the first two surveys (with that for MD-4 filtered to include only households with income up to IDR 1.5 million. Table 35 below provides summary information on how these surveys are conducted.

Table 35: Surveys Conducted to Support the Reporting of IUWASH Outcomes

Survey Name	Survey Objective	Survey Respondent	Total Sample	Results
Water Cost Survey (Outcome HR-3)	To determine the reduction of water cost by the poor.	All beneficiaries of Master Meter programs	1,580	57% decreased of water cost by the poor
Survey on household adopted improved hygiene behavior practices (Outcome MD-4)	To determine the percentage of beneficiary households on adoption of improved hygiene behavior practices	Sampling of sanitation beneficiaries (taken from beneficiaries of Outcome H-2)	5,895	68.7% households interviewed adopted improved hygiene behavior.
Survey on Satisfaction of the poor to the watsan services	To determine the percentage of poor residents that report greater satisfaction with water and sanitation services	<ul style="list-style-type: none"> All beneficiaries of Master Meter programs Sampling of sanitation beneficiaries who have income up to IDR 1,5 million 	3,394	79.30% of poor resident report on satisfaction to their new water and sanitation services

- **Regular / Non-Formal Monitoring:** Aside from formal monitoring activities as set forth above, IUWASH also placed emphasis on the role of “monitoring by walking around” to visit various activities, identify problems and successes, and then sharing those observations with other team members and managers to develop appropriate responses.
- **Support of IUWASH Evaluations:** During the course of IUWASH program implementation, the M&E Team also provided substantial support to the project’s formal evaluations, include the Midterm Evaluation, the RIG Audit and the project’s Final Evaluation. This entailed presenting up-to-date information on progress towards achieving targeted outcomes, and supporting specific data and information requirements.
- **Poverty Mapping Study:** As a follow-up to a recommendation from the IUWASH Midterm Evaluation, IUWASH M&E and other team members began examining more closely how the project’s impact on the poor could be better targeted and tracked. This led to the development of a Poverty Mapping Study, the objective of which was to use a combination of spatial analysis and field-based verification to better understand related issues. The study was initially conducted in the City of Bogor and later Kab. Sidoarjo (both of which were selected due to the perceived availability of data). The first study in Bogor was largely unsuccessful due to the difficulties of linking various databases (of poverty, of PDAM connections, and of IUWASH beneficiaries). Based upon this, the study in Sidoarjo IUWASH applied a different methodology and employed an Equity Tool survey instrument and also conducted several Focus Group Discussions (FGDs) in specific areas where poverty density was believed to be the greatest. A separate report will be issued on the results of this study.

In the project’s final six months, M&E work was especially focused on data collection and verification in support of the completions of

4. ENVIRONMENTAL COMPLIANCE

As a project aimed very much at improving the environmental health of Indonesian citizens, IUWASH understands the importance of ensuring that its own activities do not, in any way, negatively impact public health or environmental conditions in the areas where it operates. Guiding this process are USAID environmental regulation 22 CFR 216; the project’s Initial Environmental Examination (IEE), which is referenced as ASIA 09-86 Indonesia IEE & ETD (as amended on May 25, 2012); and the approved IUWASH Environmental Monitoring and Mitigation Plan (EMMP), which has been integrated into and regularly approved as part of the project’s annual workplans.

The IUWASH system for ensuring compliance with the above and related reporting requirements has involved supervision and oversight from the project’s Environmental Officer (a senior staff member who previously served as the USAID/Indonesia environmental officer, regional-level environmental officers, as well as the Persons-in-Charge (PICs) of specific activities. Among various tools that have supported the project’s environmental compliance work is the project’s TAMIS which has been used for recording and observations during site visits.

Important activities undertaken during the final months of the program involved auditing environmental compliance reporting and ensuring that all required information is available for review as required.

Section 5

PROJECT MONITORING & EVALUATION

This section presents IUWASH achievements as they relate to targeted outcomes for each “program year” (PY 1 through PY 6) and cumulatively over the entire life of project (LOP). It follows a similar format of previous reporting periods and is conform with the most recent version of project’s Performance Monitoring Plan (PMP) which was approved by USAID in March 2016. This most recent version (the Fourth over the project’s LOP) incorporated the following changes based on IUWASH contract modification number 12:

1. Outcome HR-1 (number of people in urban areas that gain access to improved water supply) was increased by 400,000 people (from 2,000,000 to 2,400,000 people);
2. Outcome HR-4 (number of people that participated in IUWASH training activities) was increased by 25,000 people (from 75,000 to 100,000 people);
3. Outcome EE-4 (number of low income households accessing microfinance for improved water and sanitation services) was increased by 5,000 people (from 15,000 to 20,000)
4. Outcome IC-6 (number of small and medium businesses providing affordable construction and sanitation facility management services) was increased by 50% (from 30 to 45 SME)

The IUWASH progress is presented under the following major headings:

- High Level Results/MDG Outcomes (HR);
- Component 1: Mobilize Demand for Improved Water and Sanitation Services (MD);
- Component 2: Improve Capacity to Provide Sustainable Safe Water and Sanitation Services (IC);
- Component 3: Create an Enabling Environment Supporting Equitable Water and Sanitation Services (EE).

While the value of the IUWASH PMP and monitoring system was an important requirement under the project, it was also used to much effect in overall program planning, budgeting and coordination. Specifically, and based on perceived progress (or lack thereof) under certain outcomes, IUWASH frequently adjusted the focus of its work to those outcomes deemed as “critical”. Nonetheless, and despite best effort, of the 26 outcomes targeted and tracked under IUWASH, three (3) did not reach their intended target. The following is a detailed review of these three (3) outcomes and reasons for the shortfall:

1. Outcome IC-1 (PDAMs with improved technical, financial and management performance):

This outcome sought to improve the technical, financial and management performance of 50 PDAMs by 20% over the baseline as measured through the project’s PDAM Performance Index (PI). However, the project fell short by two (2) PDAMs, improving performance of only 48 (or 96% of the target). The two PDAMs that did not improve performance by at least 20% included the PDAM of Kab. Labuhan Batu in North Sumatra and the PDAM of Kota Malang in East Java. In the case of the PDAM of Labuhan Batu, they in fact registered an increase of 23% during the first three (3) years of IUWASH support, but dropped to 19.48% in 2015 because the PDAM started operating three (3) new treatment plants which increased their operating cost by 20% and reduced their Full Cost Recovery score in the PI from 1.15 to 0.87, resulting in a reduction of 4% in their total PI score. In the coming year, this will be corrected by increased revenues from the new connections. As concerns the PDAM of Kota Malang, this PDAM already had a very high PI score when IUWASH began (68%, the highest baseline of all participating PDAMs). The final PI score for PDAM Kota Malang was 81.10%, at the end of IUWASH (an increase of 19.1%). While this fell short of the target, the inclusion of Malang was nonetheless very beneficial to IUWASH, as the PDAM was able to serve as a center of excellence for many other PDAM partners. The PDAM itself also appreciated this role vis-a-vis neighboring PDAMs and regularly contributed to their development in such areas as GIS, providing their expert staff free of charge for

classroom and field training, organizing exchange visits, and providing internships to other PDAM partners.

2. Outcome EE-2 (PDAMs or local government obtain access to long-term funding for water or sanitation investment plans):

Key reasons for having limited progress on this outcome as follow:

- a. Cancellation of Law 7/2004 on water resources management, which removed the legal basis upon which relationships with private sector, including business-to-business (B2B), could be established. This affected three (3) existing IUWASH projects (two in Kota Bekasi and one in Gresik) which were supposed to be financed through a B2B arrangement. Fortunately, two projects in Bekasi will now be financed through APBD, but for Gresik it is still planned to be implemented under B2B, as soon as a new regulatory framework is finalized and adopted by the GOI; and
- b. Failure of Presidential Decree 29/2009 which is seen by PEMDA and DPRD as too complicated and bureaucratic to access external financing. This affected the following four (4) potential IUWASH projects:
 - Tebing Tinggi (200 l/s WTP): delayed as new financing is sought from APBD;
 - Surakarta (300 l/s WTP): delayed as financing is sought from APBD;
 - Serang (80 l/s WTP): delayed as financing is sought from commercial bank;
 - Kendal (300 l/s WTP + transmission): is cancelled because of lack of PERPRES 29 financing.

3. Outcome EE-6 (New or improved regulation to facilitate access to capital financing in the water sector):

Progress under Outcome EE-6 was greatly constrained by events outside the control of the project during the final 1.5 years. More specifically, IUWASH initially planned to prepare a toolkit and accompanying national guideline on the structuring and implementation of B2B arrangements in which a PDAM forms a direct partnership with a private sector company to build and/or operate new infrastructure. This toolkit and national guideline did not come to fruition, however, due largely to the Constitutional Court Ruling Number 85/PUU-XII that was issued in early 2015. Briefly, the ruling annulled Law 7/2004 on water resources management and reinstated Law 11/1974 as the guiding legislation for the water services. The cancellation of Law 7/2004 had a profound impact on the financing of capital projects in Indonesia, as it removed the legal basis for any relationship with the private sector, including the B2B financing option. As such, IUWASH elected not to proceed with the proposed toolkit and guideline. In addition, IUWASH also envisioned supporting the establishment of a new national funding vehicle called the Indonesia Water Supply and Sanitation Facility (IWSIF) which was to provide loans with terms tailored to the capacity of PDAM applicants. Initiated by the World Bank, the IWSIF was to be positioned under Government Financing Center (PIP) within the Ministry of Finance. Unfortunately, however, the PIP was dissolved under the new presidential administration, placing all plans for the IWSIF on hold indefinitely. As a result of these conditions, then, IUWASH was not able to facilitate the realization of a new national regulation on water sector capital financing, especially in light of the limited time left in the project.

In addition to the above, it should be noted that several adjustments were made to achievements reported earlier under several IUWASH outcomes. This was due to some reporting was based on estimates that would be finalized at the end of the project. In particular:

- **Outcome HR-1 (people in urban areas gain access to improved water supply):** IUWASH excluded all new connections made by PDAM Kab. Labuhanbatu and Kota Malang in the final calculation because, as reviewed above, these two (2) PDAMs registered a less than 20% increase in their score on the PDAM Performance Index.
- **Outcome MD-4 (Household adopting improved hygiene behavior related to improved sanitation services):** IUWASH replaced the revised results of the household survey conducted in the period of May 2015 to May 2016. The survey was conducted in 41 LGs with a total of 5,895

respondents who are beneficiaries of sanitation programs. This change was necessary due to a modification of the definition in the PMP related to this area.

- **Outcome IC-3 (PDAMs with improved credit worthiness):** There is an adjustment in the recorded annual achievements of this outcome for PY3, PY4 and PY 5. These revisions were necessary as progress is measured based on a comparison between the baseline and final years. Detailed results are provided in the PMP Annex.
- **Outcome EE-2 (PDAMs or local government obtain access to long-term funding for water or sanitation investment plans):** There is adjustment in the outcome for PY5 (decreasing the total from 6 PDAMs to 4 PDAMs). This revision was necessary as the indicator measures the number of LGs and PDAMs obtaining access to long-term finance, as opposed to the number of long-term finance projects. As described above, this outcome did not meet the target set due to several changes in GOI policy on alternative finance.

See table below for more detailed information on the outcome above.

FINAL SUMMARY OF ACHIEVEMENT OF PMP OUTCOMES BY PROVINCE

Note: The rows with yellow color indicate the IUWASH results and outcomes that contribute to the Operational Plan (OP) Performance indicators.

PMP Outcome Indicator	Target Over the life of Project	Region	Achievement							Final Achievement	Total Achievements as % of total target
			PY1	PY2	PY3	PY4	PY5	PY6	Total		
High Level Result (HR)											
<u>HR-1</u> Number of people in urban areas gain access to improved water supply as a result of US Government assistance	2,400,000	NS	0	92,535	93,060	112,485	64,715	34,920	397,715	2,505,560 (*)	104.40%
		WJDB	0	103,115	216,660	156,115	218,430	128,165	822,485		
		CJ	0	31,495	89,945	160,715	122,250	72,820	477,225		
		EJ	0	26,740	169,390	179,840	329,775	(4,660)	701,085		
		SSEI	0	(2,255)	26,830	13,510	40,655	28,310	107,050		
Total			0	251,630	595,885	622,665	775,825	259,555	2,505,560		
<u>HR-2</u> Number of people in urban areas gain access to improved sanitation facilities as a result of US Government assistance	250,000	NS	0	10,250	885	3,415	3,145	8,235	25,930	300,635	120.25%
		WJDB	0	0	5,685	4,225	9,965	10,305	30,180		
		CJ	0	300	15,030	18,430	88,420	14,985	137,165		
		EJ	0	430	5,395	10,080	45,735	10,890	72,530		
		SSEI	0	2,635	15,615	4,275	12,140	165	34,830		
Total			0	13615	42610	40425	159405	44430	300,635		

(*) There is adjustment made on the annual achievement of Outcome HR-1 compared to the previous annual report. This adjustment made due to taking out the new connection made by PDAM Kab. Labuhanbatu (North Sumatra) and Kota Malang (East Java). These 2 PDAMs have less than 20% Performance Index based on the final review made to their performance index.

PMP Outcome Indicator	Target Over the life of Project	Region	Achievement							Final Achievement	Total Achievements as % of total target
			PY1	PY2	PY3	PY4	PY5	PY6	Total		
High Level Result (HR)											
<u>HR-3</u> The per unit water cost paid by the poor in targeted communities decreases by at least 20% through more participatory, transparent, accountable and financially enabled services (*)	20 (cumulative)	N/A (*)	N/A	N/A	N/A	N/A	57%	57%	57% (cumulative)	57% (cumulative)	284% (cumulative)
Total			N/A	N/A	N/A	N/A	57%	57%	57% (cumulative)		
<u>HR-4</u> Number of people trained in IUWASH training type of activities	100,000	NS	76	2,731	2,349	1,442	4,216	1,246	12,060	105,537	105.54%
WJDB		61	2,107	3,508	2,941	8,813	3,379	20,809 (**)			
CJ		107	5,364	8,830	3,184	9,152	4,977	31,614			
EJ		53	2,533	4,777	3,896	6,580	4,030	21,869			
SSEI		120	2,099	2,614	3,714	8,299	2,339	19,185			
Total			417	14834	22078	15177	37060	15971	105,537		

(*) This outcome is not applied to all regions. This outcome is only applied to the assisted cities have Master Meter Program.

(**) Achievement made under this outcome for WJDB includes the achievement made at the National Level

PMP Outcome Indicator	Target Over the life of Project	Region	Achievement							Final Achievement	Total Achievements as % of total target
			PY1	PY2	PY3	PY4	PY5	PY6	Total		
Component I: Mobilize Demand for Improved Water and Sanitation Services (MD)											
MD-1 Number of households willing to pay for sanitation improvements	50,000	NS	0	1,943	284	683	629	1,647	5,186	60,127	120.25%
		WJDB	0	0	882	1,100	1,993	2,061	6,036		
		CJ	0	60	1,695	4,997	17,684	2,997	27,433		
		EJ	0	31	1,135	2,015	9,147	2,178	14,506		
		SSEI	0	79	3,237	1,189	2,428	33	6,966		
Total			0	2113	7233	9984	31881	8916	60,127		
MD-2 Number of Government institutions and/or civil society groups implementing programs to mobilize improved access to safe drinking water and adequate sanitation	100	NS	0	0	11	1	0	0	12	261	261%
		WJDB	0	1	2	8	0	0	11		
		CJ	0	0	3	1	8	0	12		
		EJ	0	4	20	26	143	22	215		
		SSEI	0	1	0	4	6	0	11		
Total			0	6	36	40	157	22	261		
MD-3 Number of civil society groups that report on PDAM operations or performance	20	NS	0	0	0	0	4	0	4	23	115%
		WJDB	0	0	0	0	0	4	4		
		CJ	0	0	0	0	6	0	6		
		EJ	0	0	0	0	1	5	6		
		SSEI	0	0	0	0	1	2	3		
Total			0	0	0	0	12	11	23		

PMP Outcome Indicator	Target Over the life of Project	Region	Achievement							Final Achievement	Total Achievements as % of total target	
			PY1	PY2	PY3	PY4	PY5	PY6	Total			
Component I: Mobilize Demand for Improved Water and Sanitation Services (MD)												
<u>MD-4.</u> Percent increase in households adopting hygienic behavior related to improved sanitation services	20	N/A	68.70%							68.70%(*)	68.70%	243.5%
Total			68.7%							68.7% (*)		
<u>MD-5.</u> Number of master trainers exposed to participatory planning activities	100	NS	N/A	N/A	N/A	0	0	0	0	118	118%	
		WJDB	N/A	N/A	N/A	0	0	47	47			
		CJ	N/A	N/A	N/A	0	0	17	17			
		EJ	N/A	N/A	N/A	0	0	30	30			
		SSEI	N/A	N/A	N/A	0	0	24	24			
Total			N/A	N/A	N/A	0	0	118	118			

(*) This achievement is based on results of household survey done in 41 assisted cities with a total of 5,985 respondents who are beneficiaries of sanitation programs. This result replaced the previous survey done. This change is happened due to changing definition in the PMP after the IUWASH Midterm Evaluation which focus on behavior change supported increased access to improved sanitation facilities.

PMP Outcome Indicator	Target Over the life of Project	Region	Achievement						Final Achievement	Total Achievements as % of total target	
			PY1	PY2	PY3	PY4	PY5	PY6			Total
Component 2: Improve Capacity to Provide Sustainable Safe Water and Sanitation Services (IC)											
IC-1. Number of PDAMs with improved technical, financial and management performance	50 (cumulative)	NS	0	0	9	9	9	8	48 (cumulative)	48 (cumulative)	96%
		WJDB	0	1	3	7	8	9			
		CJ	0	1	9	10	10	10			
		EJ	0	2	6	9	11	11			
		SSEI	0	0	7	9	10	10			
Total (cumulative)			0	4	34	44	48	48			
IC-2. Number of PDAMs in default of old debts are assisted in restructuring their outstanding debts	20	NS	0	0	0	0	4	0	24 (*)	24	120%
		WJDB	0	0	0	0	2	0			
		CJ	0	0	0	0	4	0			
		EJ	0	1	1	0	4	0			
		SSEI	0	1	5	0	2	0			
Total			0	2	6	0	16	0	24		
IC-3. Number of PDAMs with improved credit worthiness	20	NS	0	0	0	0	5	1	23 (**)	115%	
		WJDB	0	0	0	0	2	2			4
		CJ	0	0	0	5	0	0			5
		EJ	0	0	2	1	0	0			3
		SSEI	0	0	0	1	3	1			5
Total			0	0	2	7	10	4	23		

*) Total number of debts restructuring plans submitted to MoF was adjusted for PY3 because IUWASH support for Kota Medan was limited and focused on monitoring. The debt restructuring plan for Langkat was prepared with IUWASH assistance, but until now has not been approved by the LG and, as such, cannot be submitted to MoF. The final result of Monitoring debt restructuring plans is based on the approached developed and agreed by the MoF. In the end of PY5, the MoF has formally issued the approval for permanent write-off of non-principle item that include tax exemption to PDAM assisted. By having this condition, IUWASH considered the support as completed and final.

***) This outcome is monitored every year until end of the project period. According to PMP, IUWASH will use the results of comparison between comparison and final year. After having final result on the credit worthiness, there is adjustment on the achievement of PY3, PY4 and PY5 based on the results of final monitoring to the credit worthiness.

PMP Outcome Indicator	Target Over the life of Project	Region	Achievement							Final Achievement	Total Achievements as % of total target
			PY1	PY2	PY3	PY4	PY5	PY6	Total		
Component 2: Improve Capacity to Provide Sustainable Safe Water and Sanitation Services (IC)											
<u>IC-4.</u> Number of local government institutions implementing necessary climate change adaptation measures, based on preliminary raw water vulnerability assessments	20	NS	0	0	0	0	1	2	3	21	105%
		WJDB	0	0	0	0	0	3	3		
		CJ	0	0	0	0	2	1	3		
		EJ	0	0	0	0	4	2	6		
		SSEI	0	0	0	0	0	6	6		
	Total		0	0	0	0	7	14	21		
<u>IC-5.</u> Number of local governments implementing integrated sanitation and hygiene interventions that reflect their citywide sanitation strategic plans	20 (Cumulative)	NS	0	0	0	0	8	8	8	53 (cumulative)	265%
		WJDB	0	0	0	0	11	11	11		
		CJ	0	0	0	0	10	10	10		
		EJ	0	0	0	0	12	12	12		
		SSEI	0	0	0	0	11	12	12		
	Total (cumulative)		0	0	0	0	52	53	53		

PMP Outcome Indicator	Target Over the life of Project	Region	Achievement							Final Achievement	Total Achievements as % of total target
			PY1	PY2	PY3	PY4	PY5	PY6	Total		
Component 2: Improve Capacity to Provide Sustainable Safe Water and Sanitation Services (IC)											
<u>IC-6.</u> Number of small and medium business providing affordable construction and sanitation facility management services	45	NS	0	0	0	0	0	11	11	56	124.44%
		WJDB	0	0	1	2	4	0	7		
		CJ	0	0	0	1	9	0	10		
		EJ	0	0	3	2	4	13	22		
		SSEI	0	0	0	1	5	0	6		
Total			0	0	4	6	22	24	56		
<u>IC-7.</u> Increased percentage (%) of poor residents in targeted communities who report greater satisfaction with water and sanitation services	20 (cumulative)	N/A	79.30%					79.30% (cumulative)	79.30% (cumulative)	396%	
Total			79.30%					79.30%			
<u>IC-8.</u> Number of municipal sanitation management units established with supporting policies, budgets and personnel	10	NS	N/A	N/A	N/A	0	0	2	2	16	160%
		WJDB	N/A	N/A	N/A	0	0	3	3		
		CJ	N/A	N/A	N/A	0	0	2	2		
		EJ	N/A	N/A	N/A	0	2	2	4		
		SSEI	N/A	N/A	N/A	0	3	2	5		
Total			N/A	N/A	N/A	0	5	11	16		

PMP Outcome Indicator	Target Over the life of Project	Region	Achievement							Final Achievement	Total Achievements as % of total target
			PY1	PY2	PY3	PY4	PY5	PY6	Total		
Component 2: Improve Capacity to Provide Sustainable Safe Water and Sanitation Services (IC)											
<u>IC-9.</u> Number of “Sustainable Urban Sanitation Framework” adopted by the GOI as a key part of national sanitation programming policy	I	N/A	N/A	N/A	N/A	0	0	I	I	I	100%
Total			N/A	N/A	N/A	0	0	I	I		
<u>IC-10.</u> Number of people from stakeholders institutions increased capacity to adapt to the impacts of climate variability and change as a result of USG assistance	100	NS	N/A	N/A	N/A	0	0	40	40	210	210%
		WJDB	N/A	N/A	N/A	0	0	43	43		
		CJ	N/A	N/A	N/A	0	0	55	55		
		EJ	N/A	N/A	N/A	0	0	51	51		
		SSEI	N/A	N/A	N/A	0	0	21	21		
Total			N/A	N/A	N/A	0	0	210	210		

PMP Outcome Indicator	Target Over the life of Project	Region	Achievement							Final Achievement	Total Achievements as % of total target
			PY1	PY2	PY3	PY4	PY5	PY6	Total		
Component 3: Create an Enabling Environment Supporting Equitable Water and Sanitation Services (EE)											
EE-I-a (Policy development)	50	NS	0	0	2	4	14	0	20	90	180%
		WJDB	0	3	0	5	6	2	16		
		CJ	0	2	2	9	6	1	20		
		EJ	0	0	0	9	9	0	18		
		SSEI	0	0	2	11	3	0	16		
Total			0	5	6	38	38	3	90		
EE-I-b (LG Sector Budget Allocations Increased)	50	NS	0	0	0	0	0	9	9	51 (*)	102%
		WJDB	0	0	0	0	0	10	10		
		CJ	0	0	0	0	0	10	10		
		EJ	0	0	0	0	0	11	11		
		SSEI	0	0	0	0	0	11	11		
Total			0	0	0	0	0	51	51		
EE-I Number of participating Local Governments that put greater priority on safe drinking water and sanitation through supportive local policies and budget allocation increases	50	NS	0	0	0	0	0	9	9	50 (*)	100%
		WJDB	0	0	0	0	0	9	9		
		CJ	0	0	0	0	0	10	10		
		EJ	0	0	0	0	0	11	11		
		SSEI	0	0	0	0	0	11	11		
Total			0	0	0	0	0	50	50		

*) The achievements of this outcome reported in previous years are a temporary report. As stated in IUWAH PMP, this achievement will have final results after having final trend on the APBD allocation (EE-I-b) at the end of IUWASH Program. Based upon this, IUWASH makes adjustment on the annual achievements on PY1 to PY5 and only presents the final results of this achievement.

PMP Outcome Indicator	Target Over the life of Project	Region	Achievement							Total Achievements as % of total target	Remarks
			PY1	PY2	PY3	PY4	PY5	PY6	Total		
Component 3: Create an Enabling Environment Supporting Equitable Water and Sanitation Services (EE)											
EE-2 Number of PDAMs or local government obtain access to long-term funding for water or sanitation investment plans	15	NS	0	0	0	1	2	1	4	8 (*)	53,33%
		WJDB	0	0	0	0	2	0	2		
		CJ	0	0	0	0	0	0	0		
		EJ	0	0	0	1	0	0	1		
		SSEI	0	0	0	1	0	0	1		
Total			0	0	0	3	4	1	8		
EE-3 Increased percentage (%) in financial resources accessed by service providers from public and private sources for expansion of improved water and sanitation services	10	NS	0	224,978.00	1,275,595.00	75,991.12	15,407	567,883.08	2,159,854.26	38,271,177.18 (13.56%)	135,56%
		WJDB	0	8,888,888.89	3,618,277.77	286,511.3	7,248,602	1,418,191.19	21,460,471.15		
		CJ	0	86,111.11	1,924,766.66	539,454.4	903,468	1,621,006.31	5,074,806.48		
		EJ	0	276,205.00	471,722.23	232,855.6	438,346	316,890.72	1,736,019.55		
		SSEI	0	0	3,151,111.11	1,241,810	2,748,791	698,313.63	7,840,025.74		
Total			0	9,476,183	10,441,472.8	2,376,622.42	11,354,614	4,622,284.93	38,271,177.18		

PMP Outcome Indicator	Target Over the life of Project	Region	Achievement							Total Achievements as % of total target	Remarks
			PY1	PY2	PY3	PY4	PY5	PY6	Total		
Component 3: Create an Enabling Environment Supporting Equitable Water and Sanitation Services (EE)											
EE-4. Number of low income households accessing micro finance for household improvements in water and sanitation	20,000 (*)	NS	0	0	138	599	124	92	953	23,340	116.70%
		WJDB	0	15	115	927	2,200	2,094	5,351		
		CJ	0	600	1,762	2,616	1,854	1,236	8,068		
		EJ	0	368	2,304	1,864	1,524	724	6,784		
		SSEI	0	0	54	864	1,233	33	2,184		
Total			0	983	4373	6870	6935	4179	23,340		
EE-5. Number of Local Governments adopt new or improved mechanisms for citizens to engage local government in water and sanitation	20	NS	0	0	0	0	3	2	5	21	105%
		WJDB	0	0	0	1	1	2	4		
		CJ	0	0	0	0	2	2	4		
		EJ	0	0	0	0	3	1	4		
		SSEI	0	0	0	2	2	0	4		
Total			0	0	0	3	11	7	21		
EE-6. Number of new or improved regulation to facilitate access to capital financing in the water sector	1	N/A	N/A	N/A	N/A	0	0	0	0	0 (*)	0%
Total			N/A	N/A	N/A	0	0	0	0		

*) There list a limited achievement on this outcome due to external factor. See justification above.

PMP Outcome Indicator	Target Over the life of Project	Region	Achievement							Total Achievements as % of total target	Remarks
			PY1	PY2	PY3	PY4	PY5	PY6	Total		
Component 3: Create an Enabling Environment Supporting Equitable Water and Sanitation Services (EE)											
EE-7. Number of central government officials exposed to alternative financing options in the water sector in the US or other applicable context	12	NS	N/A	N/A	N/A	0	0	0	0	18	150%
		WJDB	N/A	N/A	N/A	0	0	6	6		
		CJ	N/A	N/A	N/A	0	0	0	0		
		EJ	N/A	N/A	N/A	0	0	8	8		
		SSEI	N/A	N/A	N/A	0	0	4	4		
Total			N/A	N/A	N/A	0	0	18	18		

ANNEXES

ANNEX I: WATER SUPPLY MATRIX

USAID / IUWASH Water Supply Programs update: June 2016		PDAM Operational Aspects						PDAM financial Aspects				PDAM Customer Aspects		Raw Water / Climate Change		Water for Poor		CAPEX Finance		PDAM Institutional	
		WS 1						WS 2				WS 3		WS 4		WS 5	WS 6	WS 7		WS 8	
		PDAM Performance Index updated and monitoring	Energy Efficiency	Non Revenue Water Reduction	Distribution Network Improvement	Production Capacity & MQ Management	GIS / MIS support	PDAM Business Plan	Tariff review / Reclassification	Billing & Accounting Programs	Debt Restructuring	Customer Satisfaction survey	PDAM Customer Forum	CC Vulnerability assessment	Implementation Sumur Resapan	CCAdaption Action Plan	Micro Finance for Water Supply	Master Meter programs	Project preparation Capital Inv. Finance	Credit Worthiness Ladder	PDAM Strengthen internal, SOP
North Sumatra																					
1	PDAM Kota Binjai	✓		✓	✓	✓	✓		✓									✓	✓	✓	✓
2	PDAM Kota Medan	✓			✓	✓	✓		✓			✓	✓	✓				✓	✓	✓	✓
3	PDAM Kota Tebing Tinggi	✓	✓	✓		✓		✓	✓		✓							✓	✓	✓	✓
4	PDAM Kota Pem Siantar	✓		✓	✓	✓	✓	✓	✓			✓	✓	✓					✓	✓	✓
5	PDAM Kota Tanjung Balai	✓	✓	✓	✓	✓	✓	✓	✓									✓	✓	✓	✓
6	PDAM Kab. Langkat	✓	✓	✓	✓	✓	✓		✓						✓				✓	✓	✓
7	PDAM Kota Sibolga	✓			✓		✓	✓	✓			✓	✓			✓			✓	✓	✓
8	PDAM Kab Asahan	✓	✓	✓	✓	✓		✓	✓							✓			✓	✓	✓
9	PDAM Kab Labuhan Batu	✓		✓		✓		✓	✓						✓			✓		✓	✓
West Java , Banten & DKI																					
10	PDAM Kab. Karawang	✓				✓	✓	✓	✓						✓					✓	✓
11	PDAM Kota Bogor	✓				✓	✓											✓	✓	✓	✓
12	PDAM Kota Bekasi	✓		✓	✓	✓	✓				✓				✓			✓	✓	✓	✓
13	PDAM Kab Bekasi	✓	✓			✓	✓												✓	✓	✓
14	PDAM Kab Purwakarta	✓				✓		✓	✓										✓	✓	✓
15	PDAM Kab. Bandung	✓				✓	✓					✓		✓					✓	✓	✓
16	PDAM Kab. Serang	✓				✓	✓	✓	✓		✓	✓	✓	✓	✓			✓	✓	✓	✓
17	PDAM Kab. Lebak	✓				✓	✓	✓	✓			✓	✓	✓					✓	✓	✓
18	PDAM Kab. Tangerang/Tan	✓				✓			✓							✓			✓	✓	✓
19	PT Palyja / AETRA			✓												✓					
Central-Java																					
20	PDAM Kota Semarang	✓				✓	✓	✓	✓		✓				✓					✓	✓
21	PDAM Kota Surakarta	✓	✓	✓				✓	✓		✓					✓	✓	✓	✓	✓	✓
22	PDAM Kab. Kudus	✓			✓	✓	✓					✓			✓						
23	PDAM Kab. Kendal	✓		✓		✓	✓								✓					✓	✓
24	PDAM Kab. Semarang	✓		✓		✓	✓	✓	✓			✓	✓	✓						✓	✓
25	PDAM Kota Salatiga	✓	✓	✓		✓	✓					✓	✓	✓					✓	✓	✓
26	PDAM Kab Rembang	✓	✓	✓	✓	✓			✓		✓				✓				✓	✓	✓
27	PDAM Kab Sukoharjo	✓	✓	✓	✓	✓	✓	✓	✓		✓				✓				✓	✓	✓
28	PDAM Kab Klaten	✓			✓	✓	✓	✓	✓		✓				✓				✓	✓	✓
29	PDAM Kab. Batang	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓					✓	✓	✓
East-Java																					
30	PDAM Kab. Sidoarjo	✓		✓		✓	✓			✓	✓				✓	✓			✓	✓	✓
31	PDAM Kota Surabaya	✓	✓	✓				✓	✓		✓				✓	✓			✓	✓	✓
32	PDAM Kab. Gresik	✓	✓	✓		✓	✓	✓	✓	✓								✓	✓	✓	✓
33	PDAM Kab. Lamongan	✓		✓	✓	✓	✓	✓	✓		✓									✓	✓
34	PDAM Kota Probolinggo	✓		✓		✓	✓				✓	✓		✓					✓	✓	✓
35	PDAM Kab Probolinggo	✓		✓	✓	✓	✓	✓	✓			✓	✓	✓					✓	✓	✓
36	PDAM Kota Mojokerto	✓		✓		✓	✓	✓	✓										✓	✓	✓
37	PDAM Kab. Mojokerto	✓		✓		✓	✓	✓	✓		✓	✓	✓	✓	✓					✓	✓
38	PDAM Kab Jombang	✓		✓		✓	✓	✓	✓		✓				✓					✓	✓
39	PDAM Kota Malang	✓				✓	✓					✓		✓					✓	✓	✓
40	PDAM Kab Malang	✓		✓		✓	✓		✓		✓	✓	✓	✓	✓				✓	✓	✓
41	PDAM Kota Batu	✓		✓		✓	✓					✓	✓	✓						✓	✓
South Sulawesi & Eastern Indonesia																					
42	PDAM Kota Makasar			✓	✓				✓										✓	✓	✓
43	PDAM Kab Takalar	✓	✓	✓	✓	✓	✓	✓	✓		✓				✓				✓	✓	✓
44	PDAM Kab Maros	✓	✓	✓		✓	✓	✓	✓		✓				✓				✓	✓	✓
45	PDAM Kab Jenepono	✓	✓	✓		✓	✓	✓	✓			✓		✓	✓				✓	✓	✓
46	PDAM Kota Pare-Pare	✓	✓	✓	✓	✓	✓	✓	✓			✓		✓					✓	✓	✓
47	PDAM Kab Enrekang	✓		✓		✓	✓	✓	✓			✓	✓	✓					✓	✓	✓
48	PDAM Kab Pinrang	✓		✓		✓	✓	✓	✓			✓		✓	✓					✓	✓
49	PDAM Kab Sidrap	✓		✓		✓	✓	✓	✓			✓		✓	✓				✓	✓	✓
50	PDAM Kab Bantaeng	✓		✓		✓	✓	✓	✓			✓	✓	✓					✓	✓	✓
51	PDAM Kota Ambon	✓		✓														✓	✓	✓	✓
52	PDAM Kab./Kota Jayapura	✓		✓	✓		✓	✓	✓		✓							✓	✓	✓	✓

ANNEX 2: SANITATION MATRIX

USAID / IUWASH Urban Sanitation Programs update: June 2016		Individual systems				Communal systems				Sewerage			LLTT		Inst. Support	
		SAN 1				SAN 2				SAN 3			SAN 4		SAN 5	
		Cap. Bldg / Demand Triggering	Construction HH Sanitation	Develop MF / SME / CSR	Improve Hygiene Practices	Pre-Construction Support	Construction of Systems (IUWASH)	Post construction Support	Improved Hygiene Practices	Pre-Construction Support	Technical Support (FS, DED)	Post construction Support	Improved Urban Septage Mgt	IPLT design (refurbish / new)	Establishment of Operator	Capacity Building Support
North Sumatra																
1	Kota Binjai															
2	Kota Medan	√	√	√	√					√	√	√	√	√	√	√
3	Kota Tebing Tinggi	√	√		√					√	√		√		√	√
4	Kota Pematang Siantar	√		√		√		√								
5	Kota Tanjung Balai									√	√				√	√
6	Kab Langkat															
7	Kota Sibolga	√	√		√								√		√	
8	Kab Asahan												√		√	√
9	Kab Labuhan Batu															
West Java , Banten & DKI																
10	Kab. Karawang							√								
11	Kota Bogor	√	√		√	√		√	√	√	√	√	√	√	√	√
12	Kota Bekasi	√	√		√	√		√	√	√	√	√			√	√
13	Kab Bekasi	√	√	√	√	√		√	√							
14	Kab Purwakarta					√		√	√							
15	Kab Bandung	√	√	√	√	√		√	√	√					√	
16	Kab. Serang	√	√	√	√	√		√	√	√					√	
17	Kab. Lebak	√	√	√	√											
18	Kab. Tangerang	√	√	√	√			√	√				√		√	√
19	Kab. Tangerang Sel.	√														
20	DKI - Jakarta	√	√		√	√	√	√	√	√	√	√	√	√	√	√
Central-Java																
21	Kota Semarang	√	√	√	√	√	√	√	√							
22	Kota Surakarta	√	√		√	√		√	√	√		√	√		√	√
23	Kab. Kudus	√	√		√	√		√	√							
24	Kab. Kendal	√	√		√	√		√	√							
25	Kab. Semarang	√	√		√											
26	Kota Salatiga	√	√		√										√	
27	Kab Rembang	√	√		√	√		√	√						√	
28	Kab Sukoharjo	√	√		√	√		√	√	√					√	√
29	Kab Klaten	√	√		√	√		√	√							
30	Kab. Batang	√	√		√										√	√
East-Java																
31	Kab. Sidoarjo	√	√	√	√							√			√	√
32	Kota Surabaya	√	√	√	√	√		√	√							
33	Kab. Gresik	√	√	√	√	√		√	√	√		√			√	√
34	Kab. Lamongan	√	√	√	√										√	
35	Kota Probolinggo	√	√	√	√	√		√	√						√	√
36	Kab. Probolinggo	√	√	√	√					√	√	√			√	
37	Kota Mojokerto	√	√	√	√											
38	Kab. Mojokerto	√	√	√	√											
39	Kab Jombang	√	√	√	√	√		√	√						√	
40	Kota Malang	√			√	√		√	√				√		√	√
41	Kab Malang	√	√	√	√	√		√	√			√				
42	Kota Batu	√	√	√	√	√		√	√						√	√

USAID / IUWASH Urban Sanitation Programs update: June 2016		Individual systems				Communal systems				Sewerage			LLTT		Inst. Support	
		SAN 1				SAN 2				SAN 3			SAN 4		SAN 5	
		Cap. Bldg / Demand Triggering	Construction HH Sanitation	Develop MF / SME / CSR	Improve Hygiene Practices	Pre-Construction Support	Construction of Systems (IUWASH)	Post construction Support	Improved Hygiene Practices	Pre-Construction Support	Technical Support (FS, DED)	Post construction Support	Improved Urban Septage Mgt	IPLT design (refurbish / new)	Establishment of Operator	Capacity Building Support
South Sulawesi & Eastern Indonesia																
43	Kota Makassar					√		√	√	√			√		√	√
44	Kab. Takalar	√	√	√	√	√		√	√							
45	Kab. Maros	√	√	√	√					√					√	√
46	Kab. Jeneponto	√		√	√	√		√	√							
47	Kab. Bantaeng					√		√	√						√	
48	Kota Pare-Pare	√		√	√	√		√	√						√	
49	Kab. Enrekang															
50	Kab. Pinrang	√	√	√	√	√		√	√						√	√
51	Kab. Sidrap	√	√	√	√	√		√	√			√				
52	Kota Ambon					√		√	√	√	√	√			√	√
53	Kab. Jayapura															
54	Kota Jayapura					√		√	√			√			√	√

ANNEX 3: CROSS CUTTING PROGRAM MATRIX

USAID / IUWASH Cross Cutting Programs update: June 2016		Policy Development		Increased Budget		CEM	Gender Mainstreaming			Mobilizing CSR Funding		
		CC-1		CC-2		CC-3	CC-4			CC-5		
		Visiting Workshop	Development of New Policy	Budget Advocacy for Watsan Sector	Monitoring of Annual APBD Budget	Development of Citizen Engagement Mechanism	General Gender Capacity Building	Gender Pilot Program	PHRG Development for Watsan Sector	PKK Support	CCF Water Replenishment Program	Nestle Infiltration Pond Program
North Sumatra												
1	Kota Binjai	√	√	√	√	√						
2	Kota Medan	√	√	√	√	√	√	√	√			
3	Kota Tebing Tinggi	√	√	√	√	√	√	√	√			
4	Kota Pematang Siantar	√	√	√	√	√				√		
5	Kota Tanjung Balai	√	√	√	√	√						
6	Kab. Langkat	√	√	√	√	√						
7	Kota Sibolga	√	√	√	√	√	√					
8	Kab Asahan	√	√	√	√	√						
9	Kab Labuhan Batu	√	√	√	√	√						
West Java , Banten & DKI												
10	Kab. Karawang	√	√	√	√	√						
11	Kota Bogor	√	√	√	√	√	√					
12	Kota Bekasi	√	√	√	√	√						
13	Kab Bekasi	√	√	√	√	√						
14	Kab Purwakarta	√	√	√	√	√						
15	Kab. Bandung	√	√	√	√	√				√		
16	Kab. Serang	√	√	√	√	√	√					√
17	Kab. Lebak	√	√	√	√	√	√					
18	Kab. Tangerang	√	√	√	√	√	√	√				√
19	Kota Tangerang Selatan	√	√	√	√	√						
20	DKI Jakarta								√			
Central-Java												
21	Kota Semarang	√	√	√	√	√	√					
22	Kota Surakarta	√	√	√	√	√	√	√				
23	Kab. Kudus	√	√	√	√	√	√					
24	Kab. Kendal	√	√	√	√	√	√					
25	Kab. Semarang	√	√	√	√	√	√				√	
26	Kota Salatiga	√	√	√	√	√	√				√	
27	Kab Rembang	√	√	√	√	√	√					
28	Kab Sukoharjo	√	√	√	√	√	√					
29	Kab Klaten	√	√	√	√	√	√					
30	Kab. Batang	√	√	√	√	√	√					√
East-Java												
31	Kab. Sidoarjo	√	√	√	√	√	√					
32	Kota Surabaya							√				
33	Kab. Gresik	√	√	√	√	√	√					
34	Kab. Lamongan	√	√	√	√	√	√					
35	Kota Probolinggo	√	√	√	√	√	√			√		
36	Kab Probolinggo	√	√	√	√	√	√			√		√
37	Kota Mojokerto	√	√	√	√	√	√					
38	Kab. Mojokerto	√	√	√	√	√	√		√	√		
39	Kab Jombang	√	√	√	√	√	√		√			√
40	Kota Malang	√	√	√	√	√	√			√		
41	Kab Malang	√	√	√	√	√	√		√	√		
42	Kota Batu	√	√	√	√	√	√		√			
South Sulawesi & Eastern Indonesia												
43	Kota Makassar		√	√	√	√						
44	Kab Takalar	√	√	√	√	√	√					
45	Kab Maros	√	√	√	√	√	√	√	√			
46	Kab Jeneponto	√	√	√	√	√	√			√		
47	Kota Pare-Pare	√	√	√	√	√	√			√		
48	Kab Enrekang	√	√	√	√	√	√			√		
49	Kab Pinrang	√	√	√	√	√	√			√		
50	Kab Sidrap	√	√	√	√	√	√			√		
51	Kab Bantaeng	√	√	√	√	√	√			√		
52	Kota Ambon	√	√	√	√	√	√					
53	Kab Jayapura	√	√	√	√	√	√					
54	Kota Jayapura	√	√	√	√	√	√					√

ANNEX 4: FINAL STATUS OF IUWASH POLICY DEVELOPMENT SUPPORTED WATSAN SECTOR, JUNE 2016

No	Location	Policy Name	Steps of Framework of Policy Development								Remark	
			1.1	1.2	1.3	2.1	3.1	3.2	3.3	4.1		4.2
1	Kota Binjai	Peraturan Walikota No. 39 tahun 2014 tentang Pengelolaan Air Limbah Rumah Tangga (<i>Domestic Wastewater Management</i>)										Signed on 31 Oct 2014, reported on 16 Feb 2015
		Peraturan Walikota No. 32 tahun 2014 tentang Organisasi dan Tata Kerja UPT TPA/Pengelolaan Sampah (<i>Establishment of responsible unit for wastewater management</i>)										Signed on 20 Oct 2014. This regulation covers the tasks on domestic wastewater management
		Peraturan Walikota Binjai No 481-306/K/TAHUN 2015 tahun 2015 tentang Pejabat Pengelola Informasi dan Dokumentasi (<i>Citizen Engagement Mechanism</i>)										Signed on Sept 2015
2	Kota Medan	Peraturan Walikota No. 22 tahun 2014 tentang Percepatan Pengembangan Sistem Pengelolaan Air Limbah Terpusat (<i>Acceleration of Offsite Sanitation Development</i>)										Signed on 12 May 2014
3	Kota Tebing Tinggi	SK Walikota No. 690/697/tahun 2014 tentang Pengesahan Business Plan PDAM Tirta Bulian 2013-2017 (Business Plan PDAM)										Signed on 26 May 2014
		Peraturan Walikota No. 28/2014 tentang Perubahan Kedua atas Peraturan Walikota No. 16/2009 tentang UPTD (establishment of responsible unit for wastewater management, task and function)										Signed on 11 Nov 2014;

No	Location	Policy Name	Steps of Framework of Policy Development								Remark	
			1.1	1.2	1.3	2.1	3.1	3.2	3.3	4.1		4.2
		Peraturan Walikota No. 29/2014 tentang Pengelolaan Air Limbah Domestik										Signed on 11 Nov 2014
4	Kota Pematang Siantar	Keputusan Walikota No. 690/504/VII/WK-Thn 2013 tentang Tarif Air Minum dan Non Air Minum PDAM Tirta Uli (Tariff of water supply and non water supply)										Policy issued on 5 July 2013
		Peraturan Walikota No.16 Tahun 2015 tentang Perlindungan Sumber Air Baku (Raw Water Protection)										Signed on Sept 2015
5	Kota Tanjungbalai	Keputusan Walikota No. 900/132/K/2013 tentang Penggunaan Dana Penyertaan Modal untuk Pembangunan WTP III PDAM Tirta Kualo (Local Gov Equity Transfer to PDAM for Completing of WTP Construction)										Signed on 12 August 2013
		Keputusan Walikota No. 6901/159/K/2013 tentang Business Plan PDAM Tirta Kualo (2013-2017) – Bussiness Plan PDAM										Signed on 1 November 2013
		Peraturan Walikota No. 18 tahun 2014 tentang Pengelolaan Air Limbah Rumah Tangga (Domestic Wastewater Management)										Signed on 28 October 2014
		Peraturan Walikota No. 19 tahun 2014 tentang Pembentukan Organisasi dan Tata Kerja UPTD Instalasi Pengolahan Air Limbah Rumah Tangga (Establishment of responsible unit for wastewater management)										Signed on 28 October 2014

No	Location	Policy Name	Steps of Framework of Policy Development								Remark	
			1.1 = Policy identification on watsan (existing) 1.2 = Compare the existing policies on watsan and improvement needed if any 1.3 = Facilitate stakeholders on potential policy amendment or having new policy and determine the priority 2.1 = Coordinate with LG to form a team (LG agencies, POKJA AMPL, PDAM) to develop new policy/ improve policy 3.1 = Facilitate the team to process the policy amendment/develop new policy – conduct problem analysis supported policy development 3.2 = Prepare the outline of the new/amended policy 3.3 = Present the final draft to relevant stakeholders 4.1 = Conduct socialization of new policy to LG agencies 4.2 = Approval and signing the new/amended policy by Bupati/Mayor									
			1.1	1.2	1.3	2.1	3.1	3.2	3.3	4.1		4.2
		Peraturan Walikota No. 16 Tahun 2014 tentang Pelayanan Informasi Publik Bidang Air Bersih dan Air Limbah Rumah Tangga (Citizen Engagement Mechanism)										Signed on 24 Sept 2014
6	Kab. Langkat	Peraturan Bupati No. 18 Tahun 2014 tentang Pelayanan Informasi Publik Bidang Air Bersih dan Air Limbah Rumah Tangga (Citizen Engagement Mechanism)										Signed on 10 Dec 2014, reported on 19 March 2015
7.	Kota Sibolga	Peraturan Walikota No. 12 tahun 2015 Tentang Perlindungan Mata Air (Raw Water Protection)										Signed on 24 August 2015
		Peraturan Walikota No. 11 tahun 2015 tentang Pembentukan UPTD Pengelolaan Air Limbah (Establishment of Wastewater Management)										Signed on 24 August 2015
		Peraturan Walikota No. 13 tahun 2015 tentang Pengelolaan Air Limbah Domestik (Domestic Wastewater Management)										Issued on 24 August 2015
8.	Kab. Asahan	Peraturan Bupati No.34 Tahun 2014 tentang Pembentukan UPT IPLT pada Dinas Tata Kota Kabupaten Asahan (Establishment of responsible unit for wastewater management)										Signed on 3 Dec 2014, reported on 6 Feb 2015
9.	Kab. Labuhanbatu	Peraturan Bupati No 38 tahun 2014 tentang Standar Operasional Prosedur (SOP) Penyelenggaraan Informasi Publik di Lingkungan Pemerintahan Kabupaten Labuhanbatu (Citizen Engagement Mechanism)										Signed on 20 Oct 2014, reported on 18 feb 2015

No	Location	Policy Name	Steps of Framework of Policy Development								Remark		
			1.1 =	1.2 =	1.3 =	2.1 =	3.1 =	3.2 =	3.3 =	4.1 =		4.2 =	
			Policy identification on watsan (existing)	Compare the existing policies on watsan and improvement needed if any	Facilitate stakeholders on potential policy amendment or having new policy and determine the priority	Coordinate with LG to form a team (LG agencies, POKJA AMPL, PDAM) to develop new policy/ improve policy	Facilitate the team to process the policy amendment/develop new policy – conduct problem analysis supported policy development	Prepare the outline of the new/amended policy	Present the final draft to relevant stakeholders	Conduct socialization of new policy to LG agencies		Approval and signing the new/amended policy by Bupati/Mayor	
			1.1	1.2	1.3	2.1	3.1	3.2	3.3	4.1	4.2		
		Peraturan Bupati No. 24 tahun 2014 tentang Organisasi dan Tata Kerja Pejabat Pengelola Informasi Daerah (Organization and Work Procedure of responsible Authorities for Information and Documentation - CEM)											Signed on 24 July 2014
10.	Kota Bogor	Perda No. 16 Tahun 2011 tentang Perusahaan Daerah Air Minum (PDAM) Tirta Pakian Kota Bogor (PDAM establishment)											Signed on 7 December 2011
		Perda no. 17 Tahun 2011 tentang Pengelolaan Perusahaan Daerah Air Minum (PDAM) Tirta Pakuan Bogor (PDAM Management)											Signed on 7 December 2011
		Perda No. 20 Tahun 2011 tentang Perubahan atas Perda Kota Bogor No. 7/2010 tentang Penyertaan Modal Daerah kepada PDAM Tirta Pakuan, PD BPR Bank Pasar, PD Jasa Transportasi dan PD Pasar Pakuan Jaya Kota Bogor (Local Govt equity transfer to PDAM)											Signed on 20 December 2011
		Perda no. 4 tahun 2014 tentang perubahan atas Perda no. 3 tahun 2010 tentang Organisasi Perangkat Daerah (revision on Local Govt Organization mentioning the correction of the title of wastewater management unit)											Signed on October 2014, reported on Oct 2015
11	Kab. Karawang	Peraturan Bupati No. 30 tahun 2014 tentang Rencana Induk Pengembangan Sistem Penyediaan Air Minum (RISPAM) – Master Plan Water Supply System Development											Already signed on 4 August 2014

No	Location	Policy Name	Steps of Framework of Policy Development								Remark	
			1.1 = Policy identification on watsan (existing) 1.2 = Compare the existing policies on watsan and improvement needed if any 1.3 = Facilitate stakeholders on potential policy amendment or having new policy and determine the priority 2.1 = Coordinate with LG to form a team (LG agencies, POKJA AMPL, PDAM) to develop new policy/ improve policy 3.1 = Facilitate the team to process the policy amendment/develop new policy – conduct problem analysis supported policy development 3.2 = Prepare the outline of the new/amended policy 3.3 = Present the final draft to relevant stakeholders 4.1 = Conduct socialization of new policy to LG agencies 4.2 = Approval and signing the new/amended policy by Bupati/Mayor									
			1.1	1.2	1.3	2.1	3.1	3.2	3.3	4.1		4.2
12	Kota Bekasi	Peraturan Walikota No.. tahun 2015 tentang Perubahan Ketiga Atas Peraturan Walikota No. 35 tahun 2008 tentang Pembentukan dan Susunan Organisasi UPTD (Establishment of wastewater management unit)										Signed on April 2015
		Peraturan Walikota No. 44 tahun 2014 tentang Penyelenggaraan Kegiatan Sanitasi Total Berbasis Masyarakat di kota Bekasi (Community Based Total Sanitation)										Signed on 4 Nov 2014, reported on 15 Jan 2015
		Peraturan Walikota No. 68 tahun 2014 tentang Standar Pelayanan Minimal PDAM Tirta Patriot (Minimum Service Standard PDAM)										Signed on 31 Dec 2014, reported on March 2015
13	Kab. Bekasi	Peraturan Bupati No.39 Tahun 2013 ttg Pembentukan UPTD Pengelolaan Air Limbah Domestik pada Dinas Kebersihan, Pertamanan dan Pemadam Kebakaran Kabupaten Bekasi (Establishment of a Wastewater Management Unit)										Final, signed on 16 Dec 2013
14	Kab. Purwakarta	Peraturan Bupati No. 13 tahun 2015 tentang Klasifikasi Pelanggan dan Besar Tarif Air Minum pada PDAM Kab. Purwakarta (Customer Classification and Water Tariff)										Signed on 15 Jan 2015, reported on 12 Feb 2015.
15	Kab. Bandung	Peraturan Bupati No.38 Th.2014 ttg RISPAM Kabupaten Bandung Th.2014-2030 (Water Supply Master Plan)										Signed on 30 June 2014

No	Location	Policy Name	Steps of Framework of Policy Development								Remark	
			1.1	1.2	1.3	2.1	3.1	3.2	3.3	4.1		4.2
		Peraturan Bupati No.53 Th.2014 ttg Penyelenggaraan STBM di Kabupaten Bandung (Community-Based Total Sanitation)										Signed on 11 September 2014
16	Kab. Serang	Peraturan Bupati No. 38 tahun 2015 tentang Sumur Resapan (Raw Water Protection)										Signed on 15 Oct 2015
		Peraturan Bupati No. 37 tahun 2013 tentang Pembentukan Organisasi UPT Pengelolaan Air Limbah (Establishment of Wastewater Management Unit)										Signed on 9 October 2013
17	Kab. Lebak	Peraturan Bupati No. 18 tahun 2015 tentang Penyesuaian Tarif Air pada PDAM Tirta Multatuli (Water Tariff Adjustment)										Signed on 18 Sept 2015
18	Kab. Tangerang	Peraturan Bupati No. 28 tahun 2014 tentang Pembentukan UPT Pengelolaan Air Limbah Domestik (Establishment of Wastewater Management Unit)										Signed on 18 Feb 2014
19	Kota Semarang	Peraturan Walikota No. 42 tahun 2012 tentang Rencana Aksi Daerah Penyediaan Air Minum dan Penyehatan Lingkungan (Actions Plan for Water Supply Provision and Sanitation)										Issued on 28 December 2012.
		Peraturan Walikota No. 43 tahun 2013 tentang Pengelolaan Air Minum dan Sanitasi Berbasis Masyarakat (Community Based of Water and Sanitation Management)										Policy issued on 24 December 2013
		Peraturan Walikota No. 31/2014 tentang Pusat Pengelolaan Pengaduan Masyarakat (CEM).										Signed on 6 Oct 2014

No	Location	Policy Name	Steps of Framework of Policy Development								Remark		
			1.1 =	1.2 =	1.3 =	2.1 =	3.1 =	3.2 =	3.3 =	4.1 =		4.2 =	
			Policy identification on watsan (existing)	Compare the existing policies on watsan and improvement needed if any	Facilitate stakeholders on potential policy amendment or having new policy and determine the priority	Coordinate with LG to form a team (LG agencies, POKJA AMPL, PDAM) to develop new policy/ improve policy	Facilitate the team to process the policy amendment/develop new policy – conduct problem analysis supported policy development	Prepare the outline of the new/amended policy	Present the final draft to relevant stakeholders	Conduct socialization of new policy to LG agencies		Approval and signing the new/amended policy by Bupati/Mayor	
			1.1	1.2	1.3	2.1	3.1	3.2	3.3	4.1	4.2		
20	Kota Surakarta	Keputusan Walikota No. 653.2/48-B/1/2012 tentang Penetapan Lokasi Pembangunan Penataan Kawasan Kumuh dan Pembangunan Sanitasi Perkotaan (Location of Slum Area Improvement and Sanitation Development)											Signed on 8 May 2012
		Peraturan Walikota No. 16A tahun 2014 tentang Pengelolaan Lumpur Tinja (Septage Management)											Signed on 13 August 2014
		Peraturan Walikota No. 16A tahun 2015 tentang Perubahan Kedua Atas Keputusan Walikota No. 15/2002 tentang Penetapan Taif Pengelolaan Limbah dan Golongan Pelanggan (revision for Wastewater tariff and Customer Classification)											Signed on 14 July 2015
		Peraturan Walikota No. 16B tahun 2015 tentang Penetapan Tarif Layanan Lumpur Tinja (Desludging tariff)											Signed on 14 July 2015
21	Kab. Kendal	Peraturan Bupati No. 6 tahun 2013 tentang Rencana Aksi Daerah Penyediaan Air Minum dan Kesehatan Lingkungan (Water Supply and Environmental Health Action Plan)											Policy issued on 28 January 2013.
		Peraturan Daerah No. 7 tahun 2012 tentang Penyertaan Modal Daerah kepada PDAM (Local Govt Equity Transfer to the PDAM)											Final and issued on 5 September 2012.
22	Kab Semarang	Perda Penyertaan Modal Daerah pada PDAM											Already signed on 23 April 2013

No	Location	Policy Name	Steps of Framework of Policy Development								Remark		
			1.1 =	1.2 =	1.3 =	2.1 =	3.1 =	3.2 =	3.3 =	4.1 =		4.2 =	
			Policy identification on watsan (existing)	Compare the existing policies on watsan and improvement needed if any	Facilitate stakeholders on potential policy amendment or having new policy and determine the priority	Coordinate with LG to form a team (LG agencies, POKJA AMPL, PDAM) to develop new policy/ improve policy	Facilitate the team to process the policy amendment/develop new policy – conduct problem analysis supported policy development	Prepare the outline of the new/amended policy	Present the final draft to relevant stakeholders	Conduct socialization of new policy to LG agencies		Approval and signing the new/amended policy by Bupati/Mayor	
			1.1	1.2	1.3	2.1	3.1	3.2	3.3	4.1	4.2		
23	Kota Salatiga	Peraturan Walikota No. 18 tahun 2015 tentang Perubahan Atas Peraturan Walikota No. 56/2011 tentang Tupoksi Kepala UPTD (task and function of responsible unit for wastewater management)											Signed on 3 August 2015
24	Kab. Rembang	Peraturan Bupati No. 16 tahun 2014 tentang Unit Pelaksana Teknis Pengelolaan Air Limbah dan Tempat Pemrosesan Akhir (Establishment wastewater Management Unit)											Issued on 4 April 2014
		Peraturan Daerah No. 4 tahun 2013 tentang Perubahan Atas Perda No. 7/2011 tentang Penyertaan Modal Daerah pada BUMD (Local Government Equity Transfer to the PDAM)											Bupati approval on 4 September 2013.
25	Kab. Sukoharjo	Peraturan Bupati No. 49 tahun 2013 tentang Perubahan Kedua Atas Perbup No. 68/2008 tentang Pembentukan, Kedudukan, Tupoksi, Susunan Organisasi dan Tata Kerja UPTD (establishment wastewater management unit)											Approved by Bupati on 27 December 2013.
26	Kab. Klaten	Peraturan Bupati No. 539/29/2014 tentang Klasifikasi Golongan Tarif Pelanggan Air Minum PDAM Kab. Klaten (PDAM Customer Classification and Tariff)											Signed on 8 Dec 2014, reported on 12 Jan 2015
		Keputusan Bupati No. 18/252/2014 tentang Penunjukan Pejabat Pengelola Informasi dan Dokumentasi (CEM)											Signed on 22 August 2014

No	Location	Policy Name	Steps of Framework of Policy Development								Remark	
			1.1 = Policy identification on watsan (existing) 1.2 = Compare the existing policies on watsan and improvement needed if any 1.3 = Facilitate stakeholders on potential policy amendment or having new policy and determine the priority 2.1 = Coordinate with LG to form a team (LG agencies, POKJA AMPL, PDAM) to develop new policy/ improve policy 3.1 = Facilitate the team to process the policy amendment/develop new policy – conduct problem analysis supported policy development 3.2 = Prepare the outline of the new/amended policy 3.3 = Present the final draft to relevant stakeholders 4.1 = Conduct socialization of new policy to LG agencies 4.2 = Approval and signing the new/amended policy by Bupati/Mayor									
			1.1	1.2	1.3	2.1	3.1	3.2	3.3	4.1		4.2
27	Kab. Batang	Peraturan Bupati No. 54 tahun 2013 tentang Pembentukan Susunan Organisasi dan Tata Kerja UPT Kebersihan, Instalasi Pengelolaan Limbah Sampah dan Tinja (Establishment of wastewater management unit)										Final. Approved by Bupati on 25 October 2013.
		Peraturan Bupati No. 19 tahun 2014 tentang Tupoksi UPT Kebersihan, Instalasi Pengelolaan Limbah Sampah dan Tinja (Task and Function of UPT on wastewater management)										Final. Signed on 20 March 2014.
		Peraturan Bupati No. 69 tahun 2013 tentang Organ dan Kepegawaian PDAM (Organization and Personnel PDAM)										Final. Approved by Bupati on 16 December 2013.
28	Kabupaten Kudus	Peraturan Bupati No.21 Tahun 2013 tentang Rencana Aksi Daerah Air Minum dan Penyehatan Lingkungan Kabupaten Kudus (Clean Water and Heathy Environment)										Signed on 17 October 2013
29	Kab. Sidoarjo	Peraturan Bupati No. 47 tahun 2013 tentang Perubahan atas Perbup No. 52/2008 tentang Rincian Tugas Fungsi dan Tata Kerja Dinas Kebersihan dan Pertamanan (task and function on wastewater management)										Issued on 9 December 2013
		Peraturan Bupati No. 12 tahun 2015 tentang Pusat Pelayanan Pengaduan Masyarakat (P3M (CEM))										Signed on March 2015

No	Location	Policy Name	Steps of Framework of Policy Development								Remark											
			1.1	1.2	1.3	2.1	3.1	3.2	3.3	4.1		4.2										
			1.1 =	Policy identification on watsan (existing)																		
			1.2 =	Compare the existing policies on watsan and improvement needed if any																		
			1.3 =	Facilitate stakeholders on potential policy amendment or having new policy and determine the priority																		
			2.1 =	Coordinate with LG to form a team (LG agencies, POKJA AMPL, PDAM) to develop new policy/ improve policy																		
			3.1 =	Facilitate the team to process the policy amendment/develop new policy – conduct problem analysis supported policy development																		
			3.2 =	Prepare the outline of the new/amended policy																		
			3.3 =	Present the final draft to relevant stakeholders																		
			4.1 =	Conduct socialization of new policy to LG agencies																		
			4.2 =	Approval and signing the new/amended policy by Bupati/Mayor																		
30	Kab. Gresik	Peraturan Bupati No. 54 tahun 2013 tentang Perubahan Ketiga Atas Perbup No. 61/2008 tentang Pembentukan UPTD (to add new UPT on Wastewater Management and its task and function)																				Final, approved by Bupati on 31 December 2013.
		Peraturan Bupati No. 39 tahun 2013 tentang Tarif Air Minum pada PDAM (Water Supply tariff of PDAM)																				Issued on 18 October 2013.
31	Kab. Lamongan	Peraturan Bupati No. 8 tahun 2015 tentang Perubahan Kedua Atas Peraturan Bupati No. 77/2008 tentang UPT Dinas Pekerjaan Umum Cipta Karya (Establishment of Wastewater Management Unit and its task and function)																				Signed on 3 Feb 2015, reported on 8 March 2015
32	Kota Probolinggo	Peraturan Daerah No. 4 tahun 2014 tentang Pengelolaan Air Limbah Domestik (Local Regulation on Domestic Wastewater Management)																				Final. Signed on 30 May 2014.
33	Kab. Probolinggo	Peraturan Bupati No. 41/2014 tentang Perubahan Atas Perbup No. 26/2008 tentang Uraian Tugas dan Fungsi BLH (Task and Function on Domestic Wastewater Management)																				Signed on 3 November 2014
		Surat Keputusan Bupati nomor 43 Tahun 2014 tentang Pusat Pelayanan Informasi dan Pengaduan Publik (Citien Engagement Mechanism)																				Signed 20 Nov 2014, reported on 23 Jan 2015

No	Location	Policy Name	Steps of Framework of Policy Development								Remark	
			1.1 = Policy identification on watsan (existing) 1.2 = Compare the existing policies on watsan and improvement needed if any 1.3 = Facilitate stakeholders on potential policy amendment or having new policy and determine the priority 2.1 = Coordinate with LG to form a team (LG agencies, POKJA AMPL, PDAM) to develop new policy/ improve policy 3.1 = Facilitate the team to process the policy amendment/develop new policy – conduct problem analysis supported policy development 3.2 = Prepare the outline of the new/amended policy 3.3 = Present the final draft to relevant stakeholders 4.1 = Conduct socialization of new policy to LG agencies 4.2 = Approval and signing the new/amended policy by Bupati/Mayor									
			1.1	1.2	1.3	2.1	3.1	3.2	3.3	4.1		4.2
34	Kab. Mojokerto	Peraturan Bupati No. 13 tahun 2015 tentang Sumur Resapan (Raw Water Protection)										Signed on 6 April 2015
		Peraturan Bupati No. 1 tahun 2014 tentang Perubahan atas Perbup No. 52/2008 tentang Penjabaran Tupoksi Organisasi dan Tata Kerja DPUCKTR (Task and Function on Domestic Wastewater Management)										Issued on 2 January 2014.
		Peraturan Bupati No.6 Tahun 2014 tentang Pembentukan Unit Pelaksana Teknis Dinas Pelerjaan Umum Cipta Karya dan Tata Ruang Kab.Mojokerto (Establishment of wastewater management unit)										Signed on 6 January 2014
		Peraturan Bupati No. 14 tahun 2015 tentang Pemberdayaan Masyarakat dalam Pengelolaan Air Minum dan Sanitasi (CEM)										Signed on 27 April 2015
35	Kota Mojokerto	Keputusan Walikota No. 188.45/930/417.111/2014 tentang Pengesahan Business Plan PDAM Maja Tirta (PDAM Business Plan Approval)										Signed on 3 Dec 2014, reported on 22 Jan 2015
		Peraturan Walikota No. 1 tahun 2015 tentang Program Sanitasi Total Berbasis Masyarakat (Community Based Total Sanitation)										Signed on 2 Jan 2015, reported on April 2015

No	Location	Policy Name	Steps of Framework of Policy Development								Remark	
			1.1 = Policy identification on watsan (existing) 1.2 = Compare the existing policies on watsan and improvement needed if any 1.3 = Facilitate stakeholders on potential policy amendment or having new policy and determine the priority 2.1 = Coordinate with LG to form a team (LG agencies, POKJA AMPL, PDAM) to develop new policy/ improve policy 3.1 = Facilitate the team to process the policy amendment/develop new policy – conduct problem analysis supported policy development 3.2 = Prepare the outline of the new/amended policy 3.3 = Present the final draft to relevant stakeholders 4.1 = Conduct socialization of new policy to LG agencies 4.2 = Approval and signing the new/amended policy by Bupati/Mayor									
			1.1	1.2	1.3	2.1	3.1	3.2	3.3	4.1		4.2
36	Kab. Jombang	Peraturan Bupati No.17 Tahun 2014 tentang Perubahan Kedua atas Perbup Jombang No.21 Tahun 2009 tentang Tugas Pokok dan Fungsi Dinas PU Cipta Karya Tata Ruang Kebersihan dan Pertamanan Kabupaten Jombang (Establishment of a Wastewater Management Unit)										Signed and released in March 2014
37	Kota Malang	Peraturan Walikota tahun 2014 tentang Rencana Induk Sistem Penyediaan Air Minum (RISPAM) Kota Malang (Water Supply Master Plan)										Already signed on 2 February 2014
38	Kab. Malang	Peraturan Bupati No. 8 tahun 2015 tentang Pengelolaan Resapan dan Tangkapan Air Berkelanjutan (Water Catchment Management)										Signed on 15 April 2015
39	Kota Batu	Peraturan Walikota No.19 tahun 2014 tentang Pembentukan dan Penjabaran Tugas dan Fungsi UPT PAL Domestik (Establishment of wastewater management unit)										Issued on 2 May 2014.
40	Kota Makassar	Peraturan Walikota No. 48 tahun 2015 tentang Pengelolaan Air Limbah Domestik (Domestic Wastewater Management)										Signed on 31 July 2015

No	Location	Policy Name	Steps of Framework of Policy Development								Remark	
			1.1	1.2	1.3	2.1	3.1	3.2	3.3	4.1		4.2
		Peraturan Bupati No. 47 tahun 2015 tentang Tata Cara Pemberian Pengurangan, Keringanan, Pembebasan Retribusi Pelayanan Penyedotan dan Pengangkutan Limbah Cair (Tinja) - Procedures on Granting Waivers Levy Reduction for Desludging services										Signed on 31 July 2015
41	Kab. Takalar	Peraturan Bupati No. 61 tahun 2014 tentang SOP Penanganan Pengaduan Masyarakat (Citizen Engagement Mechanism)										Signed on 4 August 2014
42	Kab. Maros	Peraturan Bupati No. 48 tahun 2013 tentang Penyertaan Modal Pemda Kepada PDAM Tirta Bantimurung (Local Govt Equity Transfer to PDAM)										Policy issued on 5 September 2013.
		Peraturan Bupati No. 30 tahun 2014 tentang Organisasi dan Tata Kerja UPT Pengelolaan Air Limbah (Wastewater Management Unit)										Policy issued in 7 May 2014.
43	Kab. Jeneponto	Peraturan Bupati No. 05 tahun 2013 tentang SOP Penanganan Keluhan Masyarakat Bidang Air Minum dan Penyehatan Lingkungan (AMPL) - Citizen Engagement Mechanism.										Policy issued on 21 May 2013.
44	Kab. Bantaeng	Peraturan Bupati No. 11 tahun 2014 tentang Pembentukan Organisasi dan Tata Kerja UPTD Pengelolaan Air Limbah (Establishment of Wastewater Management Unit)										Policy issued on 28 March 2014

No	Location	Policy Name	Steps of Framework of Policy Development								Remark	
			1.1 = Policy identification on watsan (existing) 1.2 = Compare the existing policies on watsan and improvement needed if any 1.3 = Facilitate stakeholders on potential policy amendment or having new policy and determine the priority 2.1 = Coordinate with LG to form a team (LG agencies, POKJA AMPL, PDAM) to develop new policy/ improve policy 3.1 = Facilitate the team to process the policy amendment/develop new policy – conduct problem analysis supported policy development 3.2 = Prepare the outline of the new/amended policy 3.3 = Present the final draft to relevant stakeholders 4.1 = Conduct socialization of new policy to LG agencies 4.2 = Approval and signing the new/amended policy by Bupati/Mayor									
			1.1	1.2	1.3	2.1	3.1	3.2	3.3	4.1		4.2
45	Kota Parepare	Peraturan Walikota No. 15 tahun 2014 tentang Pembentukan Organisasi dan Tata Kerja UPTD Pengelolaan Air Limbah (Establishment of Wastewater Management Unit)										Signed in 7 May 2014.
		Peraturan Walikota No. 52 tahun 2011 tentang SOP Penanganan Keluhan Masyarakat (Citizen Engagement Mechanism)										Policy completed and issued on 9 October 2012.
46	Kab. Enrekang	Peraturan Bupati No. 10 tahun 2014 tentang SOP Penanganan Pengaduan Masyarakat (Citizen Engagement Mechanism)										Policy issued on 16 May 2014.
47	Kab. Sidrap	Peraturan Bupati No.11 Th.2014 ttg Tarif Air Minum PDAM Kabupaten Sidrap (Water Tariff PDAM)										Signed on 30 June 2014
48	Kab. Pinrang	Peraturan Bupati No.80 Tahun 2013 tentang Pembentukan UPTD Pengelolaan Air Limbah Pada Dinas Kebersihan, Pertamanan dan Kebakaran Kabupaten Pinrang (Establishment of a Wastewater Management Unit)										Issued on 27 December 2013.
49	Kota Ambon	Peraturan Walikota No. 12 tahun 2013 tentang Pembentukan Organisasi dan Tata Kerja UPTD Pengelolaan Limbah Tinja (Establishment of Waste water Management Unit).										Policy issued on 30 September 2013.
50	Kab. Jayapura	Peraturan Bersama Bupati Jayapura No. 46/2014 dan Walikota Jayapura No. 3/2014 tentang Penertiban terhadap pengguna air minum secara tidak sah pada PDAM Jayapura (Illegal Connection)										Signed on 8 Sept 2014

No	Location	Policy Name	Steps of Framework of Policy Development								Remark
			1.1 = Policy identification on watsan (existing) 1.2 = Compare the existing policies on watsan and improvement needed if any 1.3 = Facilitate stakeholders on potential policy amendment or having new policy and determine the priority 2.1 = Coordinate with LG to form a team (LG agencies, POKJA AMPL, PDAM) to develop new policy/ improve policy 3.1 = Facilitate the team to process the policy amendment/develop new policy – conduct problem analysis supported policy development 3.2 = Prepare the outline of the new/amended policy 3.3 = Present the final draft to relevant stakeholders 4.1 = Conduct socialization of new policy to LG agencies 4.2 = Approval and signing the new/amended policy by Bupati/Mayor								
			1.1	1.2	1.3	2.1	3.1	3.2	3.3	4.1	
51	Kota Jayapura	Peraturan Bersama Bupati Jayapura No. 46/2014 dan Walikota Jayapura No. 3/2014 tentang Penertiban Terhadap Pengguna/Pemakai Air Minum Secara Tidak sah pada PDAM Jayapura (Illegal Connection)									Signed on 8 Sept 2014
		Peraturan Walikota No. 10 tahun 2013 tentang Pembentukan Organisasi dan Tata Kerja UPTD Pengelolaan Sampah dan Air Limbah (Establishment of Wastewater Management Unit)									Signed on 27 September 2013

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