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INDONESIA URBAN WATER SANITATION AND HYGIENE PROJECT

FINAL EVALUATION

Final Evaluation Report

APRIL 2016

THIS PUBLICATION WAS PRODUCED AT THE REQUEST OF THE UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT AND WAS PREPARED BY AN INDEPENDENT EVALUATION TEAM CONTRACTED THROUGH DEVELOPMENT ALTERNATIVES INC.

Picture front cover: Septage management training conducted in Surakarta in 2014 by IUWASH in close association with the Ministry of Public Works and Housing (MPWH), the World Bank Water and Sanitation Programme (WSP), and the Asian Development Bank (ADB).

This publication was produced at the request of the United States Agency for International Development under USAID Contract No. 497-C-11- 00001. It was prepared by an independent team of evaluators consisting of Jan Willem Overbeek (Team Leader), Budi Sutjahjo (WASH Sector Specialist), Abigael Wohing Ati (Behavioral Change/Gender Specialist) and Ikatri Meynar Sihombing (Microfinance Specialist).

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Final Evaluation Report

Program Title:	**USAID Indonesia Urban Water Sanitation and Hygiene**
Sponsoring USAID Office:	**USAID/Indonesia Office of Environment**
Contract Number:	**AID-497-C-11-00001**
Contractor:	**Development Alternatives Incorporated (DAI)**
Data of Publication:	**April 2016**
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LIST OF ACRONYMS

ADB	Asian Development Bank
AKKOPSI	*Aliansi Kabupaten/Kota Peduli Sanitasi* (Kota/Kabupaten Alliance for Sanitation Awareness)
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 Nasional* (National Government Budget)
BAPPEDA	*Badan Perencanaan dan Pembangunan Daerah* (Local Government Development Planning Agency)
BAPPENAS	*Badan Perencanaan dan Pembangunan Nasional* (State Ministry for National Development Planning)
BCC	Behaviour change communication
BKM	*Badan Keswadayaan Masyarakat* (Community Empowerment Agency)
BPKP	*Badan Pengawasan Keuangan dan Pembangunan* (Finance and Development Supervisory Agency)
BPPSPAM	*BadanPendukung Pembangunan Sistem Penyediaan Air Minum* (Agency for Support of the Development of Potable Water Supply Systems)
BRI	*Bank Rakyat Indonesia*
BSM	*Bank Syariah Mandiri*
CBO	Community-Based Organization
Cipta Karya	Directorate General of Human Settlements at MPWH
CKM	Communication and Knowledge Management
DAK	*Dana Alokasi Khusus* (Special Allocation Fund)
DAU	*Dana Alokasi Umum* (General Allocation Fund)
DPRD	*Dewan Perwakilan Rakyat Daerah* (Local Government Legislature)
EE	Enabling Environment
ESP	Environmental Services Programme (USAID)
FGD	Focus Group Discussion
FY	Financial Year
GIS	Geographic Information System
GOI	Government of Indonesia
HH	Household
HRD	Human Resources Development
HWWS	Hand Washing with Soap
IC	Improved Capacity
IKK	*Ibu Kota Kabupaten* (Kabupaten Capital)
Indii	Indonesia Infrastructure Initiative
IPAL	*Instalasi Pengelolahan Air Limbah* (Wastewater Treatment Plant)
IPLT	*Instalasi Pengolahan Limbah Tinja* (Faecal Sludge Treatment Plant)
IR	Intermediate Result
IUWASH	Indonesia Urban Water, Sanitation and Hygiene
KSM	*Kelompok Swadaya Masyarakat* (Community Empowerment Group)
KWS	Sanitation Entrepreneurs Group
LEQ	Lead evaluation question
LG	Local Government
LPTP	*Lembaga Pengembangan Teknologi Perdesaan* (Institute for the Development of Village Technology)
MCK	*Mandi, Cuci, Kakus* (Public Washing & Sanitation Facilities)
MD	Mobilisation of Demand
MDG	Millennium Development Goal

MFI	Micro-Finance Institution
MIS	Management Information System
MOF	Ministry of Finance
MOH	Ministry of Health
MOHA	Ministry of Home Affairs
MPWH	Ministry of Public Works and Housing
MSS	Minimum Service Standards
MTER	Mid-Term Evaluation Report
NGO	Non-Government Organization
NRW	Non-Revenue Water
ODF	Open Defecation-Free
O&M	Operation & Maintenance
PAD	*Pendapatan Asli Daerah* (Local Government Own-Source Revenues)
PDAM	*Perusahaan Daerah Air Minum* (Local Government Drinking Water Enterprise)
PD-PAL	*Perusahaan Daerah Pengelolaan Air Limbah* (Local Government Wastewater Management Enterprise)
Perbup	*Peraturan Bupati* (Regent's Decree)
Perda	*Peraturan Daerah* (Local Government Decree)
Perpres	*Peraturan Presiden* (Presidential Decree)
PKK	*Program Kesejahteraan Keluarga* (Family Welfare Program)
PMP	Project Monitoring Plan
PNPM	National Program for Community Self-Empowerment
Pokja	*Kelompok Kerja* (Work Group)
Posyandu	*Pos Pelayanan Terpadu* (Integrated Maternal Health Service Unit)
PP	*Peraturan Pemerintah* (National Government Decree)
PPRG	Gender Responsive Planning and Budgeting
PPSP	*Percepatan Pembangunan Sanitasi Perkotaan* (Accelerated Development of Urban Sanitation)
Puskesmas	*Pusat Kesehatan Masyarakat* (Community Health Centre)
PY	Project Year
RPJMD	*Rencana Pembangunan Jangka Menengah Daerah*(Local Government Medium-Term Development Plan)
Sanimas	*Sanitasi Berbasis Masyarakat* (Community-Based Sanitation)
Satker	Satuan Kerja
SK	*Surat keputusan* (head of local government decision letter)
SME	Small and Medium-Sized Enterprise
SOP	Standard Operating Procedure
SOW	Statement of Work
SSK	*Strategi Sanitasi Kota* (City Sanitation Strategy)
STBM	*Sanitasi Total Berbasis Masyarakat* (Community-Based Total Sanitation)
TA	Technical Assistance
TAMIS	Technical Assistance Management Information System
TOR	Terms of Reference
TOT	Training of Trainers
UPTD	*Unit Pelaksanaan Teknis Daerah* (Local Government Technical Implementation Unit
USAID	United States Agency for International Development
USDP	Urban Sanitation Development Programme
USRI	Urban Sanitation and Rural Infrastructure (ADB)
WASH	Water, Sanitation, Hygiene
WB	World Bank
WSS	Water Supply and Sanitation
WSP	Water and Sanitation Programme (World Bank)
YLHS	*Yayasan Lingkungan Hidup Seloliman* (Environmental Foundation)

EXECUTIVE SUMMARY

Evaluation Purpose and Questions

The final evaluation of the Indonesia Water, Sanitation and Hygiene (IUWASH) Project aims at providing USAID and the Government of Indonesia (GOI) with an unbiased and transparent review of the results and potential impact that IUWASH has made over the life of the project. As it is believed that, by project completion, IUWASH will have reached most targeted High-Level Results and outcomes (as confirmed during the 2014 Mid Term Review and Performance Audit), it was decided that the final evaluation will focus on reviewing the project's success at both the national and local levels in terms of knowledge management and, more specifically, in informing policy, improving program development, and increasing implementation capacity.

In view of the expected start of a follow-on project later this year, the Scope of Work of the final evaluation specified five key areas of IUWASH intervention that are expected to receive continued support, including water utility performance improvement, sanitation institution development, behavior change communication (BCC), gender mainstreaming, microfinance, small and medium enterprise (SME) development and private sector engagement. Following the Scope of Work, the evaluation team has focused on answering five evaluation questions that are of specific interest in IUWASH implementation:

1. How have the IUWASH communication and knowledge management products been accessed and used by the various stakeholders?
2. How have IUWASH gender pilot activities affected IUWASH results and WASH benefits to men and women from the household to national government levels?
3. How have stakeholders benefitted from the Behavior Change Communication (BCC) in WASH approach developed and implemented by IUWASH?
4. How has this technical assistance improved the quality of the systems provided by national and local government programs at the household level and how effective was the technical assistance in leveraging additional resources for WASH?
5. What IUWASH approaches have been most successful in increasing WASH priorities to include budget allocation by IUWASH assisted local governments, especially in setting up and or improving the performance of WASH institutions?

In addition, the evaluation team has made a number of general observations and recommendations that have come up during the evaluation.

Project Background

The IUWASH project started in March 2011 and is scheduled to be completed in July 2016. The total amount allocated to the project is USD 40.7 million. In association with GOI sector initiatives, the project aims at achieving the following high level results:

a) 2,400,000 people in urban areas gain access to improved water supply;
b) 250,000 people in urban areas gain access to improved sanitation facilities; and
c) 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.
d) 100,000 persons receive training in WASH-related activities.

To ensure that the high level results are sustained, IUWASH implements activities that contribute to increasing demand for safe drinking water access and improved sanitation, improving the capacity of public and private institutions supplying these services and strengthening the enabling environment.

While IUWASH is designed around the three above components, the project's work planning and reporting format is based on the project's two main sectors of intervention, being water supply and sanitation, and those "cross-cutting areas" that are common to each sector. IUWASH operates in five regions, including North Sumatra, West, Java, Central Java, East Java and South Sulawesi and East Indonesia and is working with 50 local water companies (PDAMs) and 54 local governments.

Since its inception in March 2011, the project has undergone two performance evaluations: a mid-term review in November 2013 conducted by a team of independent consultants, and a performance audit conducted mid-2014 by the USAID Regional Inspector General's office in Manila. These reviews resulted in several modifications to the project targets as well as the approach to reaching such targets. The project is now moving towards its scheduled closure in June 2016.

Evaluation Methodology

The evaluation was carried out in Indonesia by a team of external consultants over a five-week period. The evaluation team was joined during the field trips by USAID staff from both the Washington and Indonesia offices. The methods used by the evaluation team include document review, key informant interviews, focus group discussions, site visits in four out of five project regions, data analysis and validation. In the first week of the evaluation, questionnaires were developed to be used in the interviews and Focus Group Discussions (FGD's).

Findings and Conclusions

General

There is substantial momentum for water supply and sanitation development in Indonesia, with the national government setting new sector targets to achieve Universal Access in drinking water and sanitation by the end of 2019, making available significant budgets and taking measures to strengthen the financial position of district water enterprises. In achieving these targets, the national government is working closely with district governments and water enterprises, which are the key institutions, responsible for WASH at the local level.

IUWASH has established excellent relations with the local governments (LG) and PDAMs it has been working with. Over a period of 5 years, it has provided a wide range of advisory and supporting services and at the LG level, it has helped to create considerable momentum, as demonstrated by the doubling of LG water and sanitation budgets during the same period. IUWASH advisers have often taken the role of a catalyst, bringing stakeholders together in resolving common problems and stimulating and supporting action. In doing so, IUWASH has adopted a hands-on and flexible approach, which is very much appreciated by both LG institutions and communities.

Evaluation question 1: Access and use of IUWASH Communication and Knowledge Management Products

IUWASH Communication and Knowledge Management (CKM) products are well-known by national and local government agencies involved and are easily accessed through the IUWASH website and various social media. IUWASH CKM products are used in programs of various national government agencies including Bappenas, MPWH, MoH and MoF and by LGs and PDAMs. Development partners are familiar with IUWASH CKM products and some, such as the WB and ADB, are making use of

materials in program development. GOI agencies and development partners are regularly collaborating with IUWASH in preparing CKM products, sharing experiences and making use of the large amount of IUWASH sector information. At the national level, IUWASH is especially recognized for: i) developing and piloting of approaches for urban sanitation at the LG level'; ii) its work on urban sludge management; iii) its support to PDAM debt restructuring and monitoring; iv) the development and use of the creditworthiness ladder; v) facilitating the preparation of capital investments for PDAMs; and vi) the development of various guidelines and training materials. IUWASH has further made important contributions in CKM as concerns pro-poor and poor-inclusive WASH programming, such as through its work in promulgating the application of microfinance in both water supply and sanitation and the use of the Master Meter approach in reaching those on the economic fringe of urban Indonesia. Especially useful has been the integration of selected IUWASH training materials into the curricula of Indonesian training institutes and the adoption tools by GOI agencies in regular programs and processes.

Evaluation Question 2: Benefits of IUWASH Gender Program

By implementing the gender pilot projects, IUWASH has made a good start with mainstreaming gender in its program activities. The pilot projects have generated important experiences and lessons learned and introduction of the "gender-friendly toilet" and "gender responsive planning and budgeting" were especially useful. Emphasis in IUWASH gender pilot projects has been on giving the same opportunities to men and women and on providing water and sanitation facilities with gender friendly standards. There has been less attention for involving both men and women in decision making processes and so there is scope for developing a more strategic and holistic gender approach. A suitable set of indicators to measure the impact of gender activities should be developed and/or integrated in the new project's indicators.

In any follow-on activity, it will be important to determine at an early stage the extent to which gender should be mainstreamed and ensure that this is backed up by the resources necessary to implement such a program. Lessons learned under IUWASH are to be incorporated in an updated gender approach, which identifies the barriers and enablers for changing current conditions and allows for varied implementation approaches that respond to cultural and regional settings. In implementing and monitoring of the gender strategy there needs to be adequate attention to the role of gender in decision making processes.

Evaluation Question 3: Benefits of IUWASH Behavior Change Communication (BCC)

IUWASH has contributed to the development of urban sanitation promotion in Indonesia and its role in this is appreciated by national government agencies and development partners. At the LG level, IUWASH makes an important contribution in bringing agencies together in developing and implementing WASH strategies as evidenced by increased access to improved sanitation in those areas. The uptake and use of the program approaches as described in the Urban Sanitation Promotion (USP) guide is another indicator that the project is achieving positive results.

Until recently, many LG agencies and sanitarians were used to only working with the Community Based Total Sanitation approach (embedded within the STBM program) which is tailored to rural areas, and the additional requirements for promoting sanitation in urban areas are only partly understood and applied. IUWASH experience shows that using an integrated approach to marketing of improved sanitation in urban areas enhances the uptake of improved sanitation facilities. This approach includes promotion focused on multiple motivators, micro-finance, technical options, construction and maintenance services and septage management services. Strategies and approaches for marketing of urban sanitation need to be further improved. Adoption of these approaches by

stakeholders at the national and especially local government level is a work in progress and LG staff will need to be trained and supported, requiring considerable time and effort.

Into the next project phase, further development and fine-tuning of the BCC strategy will be needed, and social marketing and participatory investment planning could provide a useful platform for the strategy which should more expressly address both water supply and sanitation. Further improvements may include: differentiating between various target groups; fine-tuning the application of microfinance; developing additional technical options. construction services and septage management; and identifying indicators for behavior change. Strategy development and regular reviews are best done by project staff in close collaboration with partner agencies.

Evaluation Question 4: Effects of IUWASH Technical Assistance (TA)

4-a: Improved Water Utility Performance
Over the past 5 years, IUWASH has conducted an impressive and very much appreciated technical assistance program in the water supply sector. During the period, most PDAMs have achieved significant progress on the IUWASH Performance Index, which is the agreed intermediate result indicator for success. IUWASH has been successful in increasing resources for PDAMs by supporting debt restructuring and tariff adjustments. It has been instrumental in accelerating and leveraging of funding for capital investments in water supply and, through its climate change vulnerability assessments and adaptation planning, it has increased awareness and stimulated program development at the local level focused at the sustainability of raw water resources and PDAM assets. IUWASH has also achieved partial results in improving operational efficiencies and service levels of PDAMs but these results are less visible, because apart from trends, at the project level there are only a few indicators that measure actual progress in these areas.

In some of the PDAMs visited, the overall objectives of IUWASH TA were not well defined. Action plans with PDAMs are prepared and agreed upon on an annual basis, but clear objectives and strategies were in some cases lacking, especially in weaker PDAMs. Because of this, it is not always evident when and how key constraints of the PDAMs will be resolved and there is no clear exit strategy. Also in some PDAMs it appears that the volume of technical assistance may not be sufficient to have a real and lasting impact. The evaluation team is of the view that the effectiveness of IUWASH technical assistance would improve if, at the start of any follow-on project, individual PDAMs and the project agree on clear objectives and strategies how these will be achieved, define intermediate result indicators and assess and commit the necessary resources. Making use of its good relations with stakeholders and current momentum for water supply development, these plans can also be used to obtain commitment from LG, national level authorities and third parties.

4-b: Sanitation Institutional Development
In the course of the project the size of the IUWASH sanitation program has steadily grown. At the LG level the project has made a significant contribution to increased momentum for sanitation and in establishing an enabling environment for improved wastewater management. In this, IUWASH has functioned as a catalyst, bringing parties together, and its hands-on and flexible approach has been appreciated by stakeholders. It is working with different institutional frameworks and it will be useful in a next phase to evaluate the (dis)advantages of the various models.

Wastewater management in urban areas in Indonesia has long been neglected. Institutions, systems, and approaches are in a very early stage of development, and budgets at the LG level are limited. The project has invested considerable resources in developing the approaches, plans, regulatory framework, and the institutions themselves, but continued support and encouragement will be needed to achieve the returns on this investment. In this context it is also worthwhile to mention the pilot programs for developing city-wide sludge management systems with LG Technical

Implementation Units (UPTDs) and PDAMs in various IUWASH cities which have considerable potential, but which also need further support and monitoring.

For on-site sanitation (and partly for off-site sanitation) clear strategies for approaching different target groups are not yet sufficiently mature, including the development of different financial packages (loans, subsidies, micro credit, special offers, etc.) and when to use them, in combination with different product packages and promotional methods. Also, the various financing mechanisms and modalities available for on-site sanitation need to be further explored, especially for low-income groups.

The development of community managed wastewater systems requires extensive guidance and support from LGs and close consultation with community organizations. Ownership and O&M arrangements need to be clearly established from the start. It is recommended that IUWASH, through the UPTDs and similar institutions, continue to support communal systems, as experience shows that LG agencies have an important role to play in the sustainable management and operation of such systems.

4-c: Microfinance
In those areas where microfinance has been applied, it has contributed to increased access to improved water and sanitation facilities. Microfinance Institutions (MFI's) consider financing for Water Supply and Sanitation (WSS) facilities as "non-productive" loans which are, therefore, considered relatively high risk, especially for low income groups (even though repayment rates so far appear to be satisfactory). It is therefore not expected that WSS loans will become a major part of their portfolios. Nevertheless, MFI's have demonstrated considerable interest in the WSS sector, and the IUWASH pilots with MFI's have generated a number of interesting business cases. These cases can and need to be further monitored, developed and (when applied in other regions) adapted based on the availability of demand and supply.

Based on the experience gained in the MF pilots, it is recommended that a microfinance strategy be developed that supports the overall IUWASH program, providing implementation guidelines that work within the Indonesian context and GOI structures. The strategy will need to be modified to suit the conditions, needs and characteristics of different areas. When entering a new region, it is important to develop a good understanding of the potential market, the availability of MFIs, their capacity, institutional characteristics, risk profiles, and opportunities.

Through promotional support and low cost funding for local banks, the services of MFI's are indirectly subsidized. Because of the recent start, the long term sustainability of financing through MFI's still needs to be demonstrated, and it is expected that indirect subsidies such as those mentioned above will still be needed in the future. Capacity building for MFI's is best implemented through microfinance technical providers such as Water.org and Microsave.

In scaling-up microfinance as an instrument for the WASH sector, it is recommended to approach financial institutions at different levels, including MFI networks. wholesale financial institutions, as well as LGs with the purpose of developing interest and awareness and facilitating collaboration in the development of financial instruments.

4-d: Small and Medium Enterprises (sanitation entrepreneurs)
The success and sustainability of community access to improved sanitation depends on the reliable supply and delivery of a range of sanitation products and services of an acceptable quality and standard. The household sanitation products are mostly delivered by small sanitation entrepreneurs (SMEs), who also in some cases offer credit schemes to their clients. Sanitation entrepreneurs, operating as individual SMEs or in groups, are mostly new to this activity and have limited experience in running a business.

IUWASH provided extensive training and guidance for (staff of) SMEs providing sanitation construction services. SME's which were already active in sanitation have benefitted from those training programs and from the introduction of national ("SNI") standard and different types of sanitation products. Also, they have been able to expand their market through engagement with the IUWASH program. IUWASH also has also been instrumental in establishing a number of new SMEs, resulting in improved availability of sanitation construction services in the market.

Currently, there is no technical, business or financial support function for SME's, which in general still have limited capacity. Technical support might be provided by the LG public works departments whereas LG health agencies may be a source of support in sanitation promotion. The possibility of a potential role to be played by the Ministry of Cooperatives and SME in supporting SME's could be further explored, with emphasis on the financial, administrative and commercial aspects of the business.

Evaluation Question 5: Successful approaches for enhancing WASH priority with local governments (as indicated by increased LG budgets and institutions)

Over the past five years, WASH budgets in IUWASH districts have more than doubled, and 10 districts showed increases of more than 300%. The reasons why LG budgets have increased are multiple and additional research is needed to determine the exact causes. Based on the interviews and discussions during its field visits, the team believes that the following IUWASH approaches may have contributed to creating momentum for WASH programs at the LG level:

a. Advocacy and training for WASH for leaders in the LG bureaucracy;
b. Interventions aimed at increasing financial resources for WASH, such as water tariff studies, targeted TA in preparing WSS investment projects, and making use of existing GOI co-financing schemes such as the Water Hibah and National Program for Community Self-Empowerment, PNPM;
c. Systematic and sustained support to institutions and capacity building; and
d. Technical assistance for the development of city-wide desludging management systems.

It is recommended that in the process of preparing the final report, the IUWASH team makes use of its experience and large amount of data collected, further to assess the possible reasons why certain LGs and/or PDAMs have performed well and others have not, and which IUWASH approaches have most affected the eventual achievements.

Additional observations

In the course of this evaluation, the team had made a number of observations of a more general nature, which are summarized as follows:

a. It is recommended that USAID and IUWASH review how progress on high level results is communicated, to ensure that in future project reports, the role of IUWASH is clearly explained and the contribution of other stakeholders acknowledged.
b. The team is of the impression that more can be achieved if the project would further strengthen and extend its networks at the national and provincial level, with the purpose of developing and strategizing approaches and for leveraging resources for WASH programs at the LG level
c. PDAM performance is currently measured with multiple indices using a variety of methods which are showing different results. It is recommended to investigate these differences and develop a new performance monitoring system for PDAMs to be used under IUWASH Plus

that will, among others, include absolute measurements of operational and financial performance and service levels.

d. With regard to intermediate results, project design for IUWASH Plus would benefit if the pre-defined targets for each of the components in the current Scope of Work for IUWASH Plus are in due course aligned with the objectives and targets of the plans agreed upon with individual LGs and PDAMs during the first year of the program.

e. In its discussions with various stakeholders at national and local government level, the evaluation team has developed some thoughts around entry criteria that could be used in the selection of districts and cities to be involved in IUWASH Plus, as follows:

   i. Local Government Commitment remains a key requirement for a successful WASH program.

   ii. Continuity and need are also important considerations because recently established institutions, especially for sanitation, need continued support and encouragement.

   iii. Potential In certain districts has been demonstrated through promising results under IUWASH and justify and require continued support (e.g. the development of city-wide sludge management systems and collaboration with banks and groups of SME's in micro-finance).

   iv. Water and Wastewater Management are part of the water cycle, and having both sectors covered in one district would be mutually beneficial.

   v. Level of urbanization requires "urban" approaches. Some areas visited by the team almost had a rural character, which would require different approaches and strategies. It is understood that in Indonesia there exist various definitions of "urban". It would be useful if in a next phase the project could be more selective in incorporating areas with common urban characteristics, allowing for interaction and interdependencies between rural and urban areas.

f. Currently there are no clear exit strategies for IUWASH TA work in various LGs and PDAMs. Preparing and committing to a strategic plan for each LG/PDAM with clear objectives and intermediate results would provide the basis for such exit strategies.

g. With regard to the poverty focus in IUWASH Plus, the first requirement will be to make the current organizations and systems work in a sustainable way. Especially for sanitation the existing institutions and systems are still very fragile. Therefore, in reaching out to low-income groups in IUWASH Plus, the evaluation team would argue in favor of poor-inclusive approaches in combination with the development of pro-poor packages and programs.

1 INTRODUCTION

1.1 BACKGROUND

As part of its Country Strategy 2009-2014, USAID/Indonesia has been funding the 5-year Indonesia Urban Water Supply, Sanitation and Hygiene (IUWASH) project. The contract for project implementation was awarded in March 2011 to Development Alternatives Incorporated under Contract Number AID-497-C-11-00001 and is scheduled to be completed in July 2016. The total amount allocated to the project is USD 40.7 million. A summary of IUWASH high level project objectives, intermediate results, project activities and resources is presented in a logical framework format in Appendix 1 to this report.

The IUWASH project is supporting the Government of Indonesia (GOI) in realizing its safe water and sanitation Millennium Development Goals (MDG) and aims at achieving the following high level results:

a) 2,400,000 people in urban areas gain access to improved water supply;
b) 250,000 people in urban areas gain access to improved sanitation facilities;
c) 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; and
d) 100,000 persons receive training in WASH-related activities.

To ensure that the high level results are sustained, IUWASH implements activities that contribute to achieving three distinct types of intermediate results, namely:

a) Increased demand for safe drinking water access and improved sanitation among urban communities and households with currently unimproved access;
b) Improved water and sanitation services provided by public and private sector institutions in urban areas where there is sufficient sustainable capacity to meet increased demand; and
c) Improved governance and finances that create an enabling environment supporting equitable access to safe drinking water and improved sanitation in urban areas.

The above is further supported by a small grants program to promote innovation and scaling-up of successful approaches to increasing access.

While IUWASH is designed around the three above components, the project's work planning and reporting format is based on the project's two main sectors of intervention, being water supply and sanitation, and those "cross-cutting areas" that are common to each sector.

IUWASH operates in five regions with regional offices in Medan (North Sumatra), Jakarta (West Java) Semarang (Central Java), Surabaya (East Java) and Makassar (South Sulawesi and East Indonesia) supported by a central office in Jakarta. Through this structure, IUWASH has been working with 52 local water companies (PDAMs) to improve access to safe water, and 54 local governments to improve access to adequate sanitation.

Since its inception in March 2011, the project has undergone two performance evaluations: a mid-term review in November 2013 conducted by a team of independent consultants, and a performance audit conducted mid-2014 by the USAID Regional Inspector General's office in Manila. These

reviews resulted in several modifications to the project targets as well as the approach to reaching such targets. The project is now moving towards its scheduled closure in June 2016.

The most recent GOI's Mid Term Development Plan (2015-2019) has set new sector targets for the Government to achieve Universal Access to water and sanitation facilities. Specifically, the national government targets 100% access by the end of 2019. In support of achieving these sector targets, USAID plans to implement a follow-on project, IUWASH Plus, which will build on the work of IUWASH while placing greater emphasis on improving access for the urban poor.

It is the intention of USAID that the findings of this final evaluation feed into the strategies of IUWASH Plus to best complement GOI's significant commitment and resources, while likewise improving conditions for the urban poor. The Scope of Work of the Final Evaluation of IUWASH is attached as Appendix 2.

1.2 OBJECTIVES OF THE EVALUATION

Based on USAID's Evaluation Policy[1], evaluations of its projects have two purposes: i) accountability to stakeholders and ii) learning to improve effectiveness.

The objectives as described in the Scope of Work state that the primary purpose of the IUWASH Final Evaluation is to provide USAID and the Government of Indonesia (GOI) with an unbiased and transparent review of the results and potential impact that IUWASH has made over the life of the project.

As it is believed that, by project completion, IUWASH will have reached most targeted High-Level Results) and the majority of targeted outcomes (as confirmed during the 2014 MTR and Performance Audit), it was decided that the final evaluation will focus on reviewing the project's success at both the national and local levels in terms of knowledge management and, more specifically, in

i) Informing policy,
ii) improving program development, and
iii) increasing implementation capacity.

1.3 APPROACH AND METHODOLOGY

Evaluation Questions

Following the Scope of Work, the evaluation team has focused on answering five questions that are of specific interest in IUWASH implementation:

1. How have the IUWASH communication and knowledge management products (toolkit, videos, PSAs) been accessed and used by the national and local government, other donors, and implementing partners internally and externally?

2. How have IUWASH gender pilot activities affected IUWASH results and WASH benefits to men and women from the household to national government levels?

[1] USAID Evaluation Policy, Washington, January 2011

3. How have the district and city governments, communities, and households in the different regions of Indonesia benefitted from the Behavior Change Communication (BCC) in WASH approach developed and implemented by IUWASH?

4. IUWASH has provided technical assistance (TA) to Government of Indonesia funded initiatives at national level (PNPM, SLBM, etc.) as well as at local government level that increase household and on-site water and sanitation access. How has this technical assistance improved the quality of the systems provided by these Government of Indonesia programs at the household level and how effective was the technical assistance in leveraging additional resources for WASH?

5. What IUWASH approaches have been most successful in increasing WASH priorities to include budget allocation by IUWASH assisted local governments, especially in setting up and or improving the performance of WASH institutions?

In addition, the evaluation team has made a number of general observations and recommendations that have come up during the evaluation.

Focus Areas

As the timing of this evaluation is appropriate for recommending and suggesting possible future strategies for WASH sector assistance in Indonesia, the SOW of the final evaluation specified five key areas of IUWASH intervention that are expected to receive continued support in a follow-on project, as follows:

- Water utility performance improvement
- Sanitation institution development
- Behavior change communications and gender mainstreaming
- Microfinance and SME development
- Private sector engagement

Where possible, the above areas of intervention have been used as the focus of analysis in responding to key evaluation questions. Early on in the evaluation, short questionnaires were developed for each of the evaluation questions and target areas, which are attached as Appendix 3-b to this report. These questionnaires have been used in interviews with key stakeholders and in focus group discussions throughout the evaluation. Also, an information matrix was prepared with further details on the sources of information for each of the evaluation questions. The questionnaires and the matrix were included in the Work Plan for this Evaluation.

Methodology

The evaluation was carried out in Indonesia by a team of external consultants over a five week period. The evaluation team was joined during the field trips by USAID staff from both the Washington and Indonesia offices. The composition of the team is presented in Appendix 3-a.

The final assessment has endeavored to reflect the principles of USAID's Evaluation Policy, trying to be (i) unbiased in measurement and reporting; (ii) relevant; (iii) based on the best methods and (iv) transparent.

In its discussions with the various stakeholders in IUWASH, the evaluation team reviewed the effectiveness of IUWASH activities and the quality of the deliverables produced by the project. Sources of information are included in the logical framework table in Appendix 1. The team has

analyzed to what extent the project activities and outputs have contributed to achieving the intermediate outcomes of the project. Based on that information the team has tried to answer the evaluation questions.

The following methods have been applied in the evaluation:

- **Document Review:** A list of documents, reports and communication and knowledge management products reviewed by the team is attached as Appendix 4.

- **Key Informant Interviews (KIIs):** The team consulted with stakeholders to obtain feedback on the significant changes before and after project implementation with a wide range of stakeholders, including staff and representatives of key national government agencies, 2 provincial governments, 11 local governments, 11 PDAMs and staff of development partners and projects involved in the WASH sectors and IUWASH project staff. A list of organizations and persons consulted is presented in Appendix 5.

- **Focus group discussions (FGDs):** The Evaluation conducted focus group discussions with women, local government and water utility representatives, sanitarians, and other project beneficiaries to obtain feedback on the significant changes before and after IUWASH project implementation. In total the evaluation team met with 15 groups of beneficiaries of IUWASH water supply or sanitation programs.

- **Site Visits:** The Evaluation Team made visits to project locations in a representative sample of the five IUWASH regions to consult with stakeholders and project beneficiaries on the evaluation questions and to directly observe the results and outcomes of the project and to collect and validate field data and information.

- **Data Analysis:** The evaluation team reviewed and analyzed data obtained from the IUWASH Technical Assistance Management Information System (TAMIS), IUWASH annual and quarterly progress reports and data obtained during the field visits and from other sources. A summary of the achievements under the project's expected high level results and intermediate outcomes is included in Appendix 7 to this report.

- **Data validation**: in some cases external studies and reports were used to validate data produced by IUWASH. For example the MPWH database on the performance of PDAMs has been compared with the PDAM performance index maintained by the MPWH (BPPSPAM) and water resources studies carried out by WB/MPWU were used as background material in reviewing the work of IUWASH on Climate Change Vulnerability Assessments and Water Resources studies.

Deliverables and reporting

The evaluation team has reported to the USAID Indonesia Office in Jakarta and has produced the following reports:

1. A Work Plan (8 February 2016)
2. A De-briefing presentation in PowerPoint with a summary of findings and recommendations (2 March 2016)
3. A draft evaluation report for review by USAID and the IUWASH team (25 March 2016)
4. A Final evaluation report following standard USAID reporting format and branding guidelines (20 April 2016).

1.4 RECENT DEVELOPMENTS IN THE INDONESIAN WASH SECTOR

Until recent years, the water and sanitation sector in Indonesia has only made limited real progress in terms of increasing access to improved water supply and sanitation. Half of Indonesia's population is living in urban areas but only 33% of the urban population has access to piped water and less than 5% has access to a piped sewerage network[2]. Internationally, e.g. in comparison with other ASEAN countries, Indonesia is lagging behind. Current growth in water and sanitation coverage is not sufficient to keep up with urban population growth.

Water Supply Sector
The urban water supply sector is facing a number of serious challenges, including low coverage, high non-revenue water (NRW), poor cost recovery in PDAMs, low levels of investment, reducing yields and deteriorating quality of water resources.

PDAMs in each district are charged with water supply service delivery. They come under the responsibility of local government (LG), which, besides water supply, often has many other priorities. In addition, the environment in which PDAMs operate is not always conducive for developing into a professional utility. Water tariffs are often kept low for political reasons, PDAM management is not always appointed because of their professional capacities, risk aversion by LG makes it difficult to borrow for investments and in cases where PDAMs generate a profit, this is sometimes used as a source to support LG budgets.

In its next medium term development plan RJMNP 2015-2019, GOI is aiming at 100% improved water supply in urban areas, of which 60% is to be realized through piped water supply. This means that the number of piped water connections in the coming 5 years would have to increase from 10 million (2015) to about 27.7 million (2019) at an estimated cost of IDR 200 trillion. To achieve this, the GOI is allocating some IDR 80 trillion in the national budget, with the balance to be covered by local governments, PDAM's, loans and private investment. In support of this, the Ministry of Finance is currently preparing a measure, to be implemented in 2016, under which old loans from National Government to PDAM will be "waived", which will significantly improve their creditworthiness.

The sanitation sector
Development of the urban sanitation sector is also facing a number of constraints. Historically, sanitation improvement in Indonesia has been seen as a household responsibility. According to MDG statistics, 72%[3] of people in towns and cities have access to improved sanitation, but the quality of these systems is often poor and many households have toilets connected to soak pits or poorly constructed septic tanks. A very low proportion of domestic wastewater is properly treated and an estimated 14% of the urban population still practice open defecation or use overhanging 'helicopter toilets' that discharge directly into canals and rivers below. The extent of water pollution is severe but two thirds of the urban population still relies on groundwater as its main water source.

Poor sanitation is holding back Indonesia's human and economic development. WSP estimates the real annual economic cost of poor sanitation in Indonesia at some US$6.3 billion (2006 figures) or 2.3% of GDP. Poor sanitation and water contribute extensively to health problems. Diarrhoea, Hepatitis A and E, scabies, worm infestations and typhoid are common.

[2] Source: World Bank - Water and Sanitation Program
[3] UN/MDG report 2015

In 2009, as part of its National Medium Term Development Plan (RPJMN 2010-2014), the government announced a five-year "Acceleration of Sanitation Development in Human Settlements Program" (PPSP), with substantially increased funding for urban sanitation development. It aimed at providing off-site sewerage and treatment systems for 10% of the population (5% community-based and 5% city scale systems) and on-site treatment facilities for 90% of the population, and achieve 100% eradication of open defecation.

In its current RPJMN 2015-2019, GOI aims at universal access to improved wastewater management at an estimated costs of IDR 202.4 trillion, of which some 10% is budgeted for in the national government budget for the same period[4]. This means that the majority of funding has to come from third parties, including local government, private sector, communities and households.

With regard to using the national budget, GOI is focusing on extending municipal sewerage systems as well as community-managed communal wastewater treatment systems as an intermediate solution for selected poor dense settlements. The National Development Planning Agency, BAPPENAS, is promoting community-managed DEWATS as an intermediate solution for selected poor dense settlements until full municipal sewerage and wastewater treatment are feasible. Local networks developed for DEWATS will in time be integrated into a wider sewer system with centralized treatment wherever possible.[5] Also, there is increasing awareness at various levels of government that government has a role to play in the development of on-site sanitation at the household level by a combination of promotion and facilitating access to finance and technical support and improved septage management.

Local governments are formally responsible for ensuring the availability of basic services, but sanitation so far has not had much priority. In most cases capacity at the LG level is weak and fragmented and until recently only very limited budgets have been made available.

[4] Source: DG Cipta Karya Dec 2015: Kebijakan dan Strategi Kecapaian Akses Universal Sanitasi Layak pada tahun 2019

[5] Source: Review of Community-Managed DEWATS in Indonesia, page 8

2 EVALUATION QUESTION NO 1 – ACCESS AND USE OF IUWASH CKM PRODUCTS

Evaluation Question 1: How have the IUWASH communication and knowledge management products (toolkit, videos, PSAs) been accessed and used by the national and local government, other donors, and implementing partners internally and externally?

2.1 INTRODUCTION

IUWASH Communication and Knowledge Management (CKM) products include promotional brochures, information leaflets, technical notes, guidance notes, tools & approaches and reports. A full list of CKM products has been obtained from the IUWASH team and is attached in Appendix 4.

2.2 FINDINGS

In preparing CKM products, IUWASH normally sends drafts to GOI institutions and relevant stakeholders for peer review and comments. Where appropriate, comments are incorporated and once finished, CKM products are distributed in accordance with the IUWASH distribution list, which includes GOI institutions at the national level, other development partners, sector projects and agencies, and where relevant to provincial and local government agencies and PDAM's. IUWASH CKM products are normally available in pdf format from the IUWASH website and through social media such as You Tube, Facebook, Flickr and Twitter.

In general, relevant GOI institutions and other development projects have been involved in the development of CKM products. For example, the Clean Energy Development Project has been involved in the preparation of energy efficiency audit materials for PDAMs and MPWH organized a workshop to introduce the materials and as another example MoH officials have been asked to comment on the Urban Sanitation Promotion Guide. Also IUWASH collaborated with other development partners such as WSP and Water.Org in the development and testing of new materials and approaches.

A number of development partners including WSP, WB and ADB have commented positively on the volume and availability of IUWASH CKM products and also to the fact that IUWASH has been a rich source of sector information and experience, which has been useful in program development.

IUWASH staff mentioned there is no standard procedure to ascertain the quality of new CKM products and how this is done differs from case to case. This may explain why MPWH officials mentioned that in some cases they had come across new and final IUWASH CKM products for sanitation without being aware that these had been prepared.

In the next sections, access to and use of IUWASH CKM products has been analyzed for each of the focus areas of this evaluation.

2.2.1 Water Utility Performance Improvement

IUWASH has produced a range of CKM products related to water utility performance improvement, as presented in the table below. Most products are available on the IUWASH website.

Aspect	Title CKM	Use and Access
Energy efficiency	• PDAM Energy Efficiency Audit (guide book) • Energy Efficiency for improved PDAM performance (information leaflet) • Best Practice and Lessons Learned on Energy Efficiency	• Developed jointly with the Indonesia Clean Energy Development Project • Adopted by MPWH in a workshop in 2015 • Applied by IUWASH in 14 PDAMs (plus 2 ongoing)
PDAM performance index	• PDAM Performance index (tool)	• Is used by all IUWASH PDAMs • Known by WB, WSP, ADB, MPWH, BPPSPAM
Credit-worthiness	• Creditworthiness Ladder (CWL) for PDAMs (Tool) • Billing & Accounting of PDAM Pematangsiantar (Brochure)	• The CWL was applied for 37 IUWASH PDAMs • The CWL is known by BAPPENAS, BPPSPAM and MoF • CWL included by BAPPENAS as module in the National NAWASIS system • The CWL is known by WB, WSP, ADB, MPWU
Customer relations	• Role of Customer Communications Forum in PDAM Bogor city (information leaflet) • Banner & Sticker - Complaint handling for Takalar district • Website Development for PDAM Purwakarta to Support CEM • Customer Communication Forum (FKP = Forum Komunikasi Pelanggan) toolkit , to be launched in May 2016	• Materials are known by PDAMs in which the materials are applied • Training modules on Customer Communication Forums have been included in the curriculum of the Certified Management Course for PDAM staff of YPTD, the training foundation under Perpamsi, which is regularly conducted
Climate change/ water resources	• Introduction Climate change Adaptation Activity (information leaflet) • Climate Change Adaptation Highlights (Activity Summary) • CCVA for Water Supply in Indonesia (information leaflet) • Water Sources and Climate Change in Indonesia (information leaflet) • Climate Change Inception Report (Report) • 20 CCVAAP City/District Reports • CCVAAP toolkit and training materials	• CCVAs were implemented by 20 PDAMs in Indonesia with IUWASH assistance • CCVAAP reports produced for 16 cities/districts in Indonesia • CCVAAP toolkit and training materials have been used in 8 training programs in the last quarter of 2015 • CCVAAP training materials have been included in the curriculum of Certified Management Course for PDAM staff of YPTD, the training foundation under Perpamsi
Infiltration ponds	• Profile Program - Infiltration Ponds in Semarang district and Salatiga city • Technical Note - Infiltration Ponds • Banners - Infiltration ponds program in Semarang, Salatiga and Malang • Video - CCVAAP/Infiltration ponds program in North Sumatra (various)	• Materials were used by IUWASH in facilitating the construction of infiltration ponds in 5 project regions in about 8 districts/cities and in advocacy and study visits between regions, organized by IUWASH for this purpose. • Available on You Tube • National Metro TV broadcast, available on You Tube

Aspect	Title CKM	Use and Access
Master meter program	• Master Meter program in Sidoarjo city, East Java province (example) • Technical Note - Master Meter • Master Meter (Tool & Approaches) • Master-meter program in Surabaya Banner/Poster • Feature article in Tempo Magazine (2014) • TV broadcasts in 2014 and 2015	• Materials were used in master-meter programs completed in 5 PDAMs and 4 ongoing in DKI Jakarta • ADB is familiar with materials through involvement in MMP in DKI Jakarta • WB/WSP is not directly involved in IUWASH MMP but are aware and implementing similar approaches
Water Supply general	• Water for the Poor (information leaflet) • Water Supply in Indonesia (Information leaflet) • Promotional Brochure and Banner - PDAM of Klaten district (sample) • PDAM Supervisory Board/Dewan Pengawas (information leaflet)	• Promotional materials are used by PDAMs and local governments as general information • New customer promotions, used by PDAM staff tor customers • PDAM Supervisory Board leaflets are used in visioning workshops and other relevant training events

2.2.2 Sanitation and Behavioral Change Communication

IUWASH has produced a range of CKM products related to Sanitation and BCC which are jointly presented in the table below. Products are mostly available on the IUWASH website.

Aspect	Title CKM	Use and Access
General	• Urban Sanitation Promotion Guide Book	• The guide book was reviewed by various stakeholders at the national level and is extensively used as the main resource in Urban Sanitation Promoters Training • The guide book is exhibited in MoH's sanitation and water sub directorate and the Bappenas office. • The USP Guide has been distributed to GOI stakeholders and development partners
Individual systems and hygiene	• Banner & Leaflet - Handwashing with soap (key times & how-to) • Poster - Faecal Oral (microbes) Transmission • Program profile - Triggering on stop open defecation in Jeneponto • First person - My own toilet, Jeneponto district	• Leaflet of hand washing with soap is used by IUWASH in their activities and distributed to stakeholders to inform communities. It has been used by the MoH and been adopted by www.dokter.co.id. • Fecal Oral transmission poster contains information about how E.coli is transmitted from feces to human body • Leaflet Handwashing with Soap will be used and reproduced by MCAI – Millennium Challenge Account Indonesia.
Institutional Development	• Urban Sanitation Framework (Tool) • Standing banner - Urban Sanitation Framework • Urban Sanitation Toolkit in 5 volumes	• The Urban Sanitation Framework introduces key concepts of integrated and comprehensive waste water management. The framework was introduced to

Aspect	Title CKM	Use and Access
	(in finalization stage) • Set of UPTD specific standard operation procedures (SOP) and training materials • Program profile - UPTD PAL of Bogor city • Poster - PD PAL Jaya DKI Jakarta (Sanitation for a Healthier Jakarta)	IUWASH stakeholders (LGs, CGs, donors and others). ADB plans to adopt this framework in their newly implemented programs (Green Cities Initiatives) • Urban Sanitation Toolkit used by LG agencies and staff, SME's, CBO's and in PNPM program. • UPTD SOPs are used for training staff and in operations of UPTD's in various LGs
Communal Sanitation	• Video - TV-style PSA on Individual & Communal Sanitation Systems • Video - SAN-2/ Communal sanitation system promotion & advocacy Program profile - Communal sanitation in Margasana, Serang district • Flip-charts and Handbooks for the development of individual sanitation and communal sanitation • Various Program profiles on Management and Capacity building for community wastewater systems • Healthy Latrine in Bandung	• Videos were distributed to development partners and national government agencies and are available on You Tube. • Flipcharts, handbooks and program profiles are used by LG urban sanitation promoters and national government staff • Various programs on DAAI TV Broadcast - Hallo Indonesia, available on You Tube
Sewerage Systems	• Various program profiles and promotional brochures on large and smaller sewerage systems and sewerage connections	• Used by LG government agencies and community workers
Desludging	• Program profile - Regular desludging Cart (Kedoteng) in Pademangan, Jakarta • Program profiles, banners and promotional brochures on Regular desludging services in Surakarta city and PAL Jaya Jakarta • Animation/Speed Drawing - Regular Desludging for DKI Jakarta + 4 city specific speed drawings • Video - Launching of Regular Desludging Service/LLTT in Surakarta city • LLTT guidebook (under development), including supplements on financing, tariff calculation, promotion/ marketing, • Guidelines on Android application for septic tank census • Guidelines for MIS system for LLTT	• Materials are being used in promotional activities and socialization of desludging management programs in DKI Jakarta and Surakarta • Video has been distributed to development partners and national government agencies and are available on You Tube and is used by LG and PDAM staff

2.2.3 Cross cutting CKM products

IUWASH has produced a range of CKM products related to BCC and Gender, as presented in the table below.

Aspect	Title	Use and Access
LG Budgets (APBD)	• WatSan APBD Index (Tool) • LG WatSan Budget Analysis (Tool) • APBD Analysis and Advocacy (Technical Note)	• Distributed to 50 PDAMs in the IUWASH program. This is a tool to facilitate the collection, organization, and analysis of water and sanitation budget allocation. • The technical note on the analysis of LG budgets (APBD) is used in WASH advocacy and training programs for key LG officials and in visioning workshops
Visioning for WASH	• IUWASH Visioning Workshop for WASH sector	• This is a two-page sheet that contains information about harmonizing visions on WASH of various stakeholders at city level. • The note is used in WASH advocacy and in visioning workshops
Gender	• Introduction to IUWASH Gender Program (PP presentation)	• PP presentation used by project staff in introducing IUWASH gender program to various stakeholders • Gender specific chapters and sections are integrated in other IUWASH CKM products, such as the USP guide.
Corporate Social Responsibility (CSR)	• IUWASH Approach for CSR program	• No information available on use

2.2.4 Microfinance

IUWASH produced a range of CKM products related to microfinance, as presented in the table below. Most products are available on the IUWASH website.

No	Title	Use and Access
1	• Microfinance Action Plan	• Action Plan for microfinance for household sanitation facilities suggesting to focus on large and well-established cooperatives and combining grant funds with microfinance • Microfinance for water supply continued with more focus to smaller number of committed PDAMs
2	• Information note on Microfinance/Grant for Water Connections in Jombang, Kota Semarang	• Used for promotion by PDAMs in concerned districts
3	• Technical Note - Microfinance for Water Connection in Kudus district	• No information available on use of this note
	• Technical Note - Microfinance for Water access	• This brief information provides typical Microfinance Process Involving Banks, how to

No	Title	Use and Access
		establish cooperation between Bank and Water Utility (PDAM) and general Scheme of Micro Financing for Water Access. • is informative, clear and easy to understand for public reading
4	• Video - Microfinance for Piped Water Connections in Mojokerto district	Introduction to the process of IUWASH discussion with PDAM in water and sanitation. Banks sharing and testimony of HH getting better access to clean water. Available in You Tube
5	• Program profile - Microfinance for sanitation/toilet in Tangerang district	Used by LG in Tangerang
6	• Program profile - Microfinance for toilet in Bandung district	Specific profile information is not available on the IUWASH website, however as a cover story on IUWASH-QPR-17 - April-June-2015 on Microfinance for Sanitation Targets to Build 1,500 toilets in Bandung District
7	• Video - Launching of Microfinance for Toilet in Bandung district (DAAI TV) • Video - Microfinance for Toilet in Probolinggo district	Information on the sanitation challenge in the community and how IUWASH supports financing HHs that would like to construct sanitation after triggering and how sanitation entrepreneurs are supported in the sanitation program. Available in You Tube.
	• Promotional Brochure and Banner - PDAM of Sukoharjo district	Promotional brochure prepared with assistance of IUWASH and used by PDAM and used by PDAM Sukoharjo

2.2.5 SME Development

IUWASH has produced CKM products related to SME development, as presented in the table below.

No	Title	Use and Access
1	SME Training Guide	Document used by regional offices for training SMEs. Content was not reviewed by the evaluator. SMEs suggested to include items such as simple business planning and book keeping and gender in addition to the technical aspects.
2	Video - SAN-1/ Toilet construction advocacy	SAN-1 video describes the first-hand experiences of people (from East Java, Banten and South Sulawesi) triggered to build an individual toilet. The video is used in community meetings and for training SMEs, sanitarians and facilitators.
3	SNI-standard Toilet Construction Handbook	Content was not reviewed by the evaluator but IUWASH SNI standard is recognized by stakeholders and SMEs. MPWH office in Bandung noted some differences with their standards.
4	Toilet construction in Klaten district Lessons Learnt Book	Shares stories of sanitation program implementation in Klaten. Available in the PNPM office.
5	IUWASH Promotional Kit for Sanitation	Used by SMEs and available during field visits

2.3 CONCLUSIONS

IUWASH CKM products are generally known by relevant GOI sector agencies and can be easily accessed by any interested organization from the IUWASH website and through social media.

As specified in the above tables, IUWASH CKM products are used in programs of various national government agencies including Bappenas, MPWH, MoH and MoF. Development partners are familiar with IUWASH CKM products and e.g. WB and ADB are making use of materials in program development. Local government agencies and PDAMs have used the materials and approaches as they were applied in IUWASH programs and in the LGs and PDAMs visited by the evaluation team the CKM products were being used where applicable.

IUWASH is especially recognized for i) developing and piloting of approaches for urban sanitation at the LG level; ii) for its work on urban sludge management; iii) for its support to PDAM debt restructuring and monitoring; iv) for the development and use of the creditworthiness ladder; v) for facilitating the preparation of capital investments for PDAMs; and vi) for the development of various guidelines and training materials. IUWASH has further made important contributions in CKM as concerns pro-poor and poor-inclusive WASH programming, such as through its work in promulgating the application of microfinance in both water supply and sanitation and the use of the Master Meter approach in reaching those on the economic fringe of urban Indonesia.

The integration and use of IUWASH CKM products in regular training programs of Indonesian training institutes (e.g. introducing training modules on customer forums and climate change vulnerability in the curriculum of the Perpamsi Certified Management Course for PDAM managers) is an especially useful way of ensuring the sustained used of these materials. This also applies if and when IUWASH CKM products and linked to regular government processes and programs (such as the inclusion of the CWL in the Bappenas NAWASIS system and the use of the debt monitoring tool by the Ministry of Finance).

Involving relevant sector organizations and stakeholders in preparing, reviewing and introducing new CKM products (such as with energy efficiency and sludge management) has been useful in creating awareness and acceptation of new materials and approaches.

2.4 RECOMMENDATIONS

The quality and use of IUWASH CKM products can be further improved by

a. Applying standard peer reviews by GOI and relevant sector experts from other projects and development partners
b. Continued efforts to link IUWASH CKM products to relevant government processes and programs
c. Continued work with Central and Provincial Government Training Centers in integrating IUWASH training materials and approaches in the curricula of regular WASH training programs.

3 EVALUATION QUESTION NO 2 – IUWASH GENDER ACTIVITIES

Evaluation Questions 2: How have IUWASH gender pilot activities affected IUWASH results and WASH benefits to men and women from the household to national government levels?

3.1 INTRODUCTION

The original project document states the following Scope of Work for Gender activities in IUWASH:

> *"The Contractor shall ensure that activities are responsive to gender considerations, and seek to ensure that the assistance provided and the results achieved are beneficial to women and girls. Regarding sanitation-specific improvements, women and girls generally have great concerns and needs for privacy, security and convenience. Women's participation in decision-making will be enhanced and encouraged in this project. In addition, the Contractor will look for opportunities to develop the capacity of women entrepreneurs to participate in the water, sanitation and hygiene supply chain. This component of the project has the potential to benefit women and children directly from increased income-generating opportunities. Appropriate indicators and key variables must be identified that will help determine whether gender equity and inclusion of other marginalized groups is promoted, eroded, or unaffected by the project activities, or serve to identify constraints, increase our understanding of the negative impact of such disparities with the goal of devising appropriate strategies to eventually attain equality and adequate representation.*

Based on the above, IUWASH recognized the importance of gender issues to its own operations and the sector at large and established a modest yet concerted gender mainstreaming program, of which the gender pilot programs are an important component. In IUWASH, gender mainstreaming has been viewed as a "cross-cutting" activity that is important to both water supply and sanitation activities. The broad strategy was to mainstream gender in the working environment and in program activities. This strategy was developed based on an IUWASH gender assessment conducted in the early stages of program implementation, and generally aligns with the definition of ECOSOC1997 which states that gender mainstreaming is:

> *the process of assessing the implications for women and men of any planned action, including legislation, policies or programs, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programs in all political, economic, and societal spheres so that women and men benefit equally and inequality is not perpetrated. The ultimate goal is to achieve gender equality.*

Summary of Gender Activities under IUWASH

IUWASH Gender Pilot Programs have taken place within the framework of IUWASH Gender Program and therefore it is useful to provide an overview of key gender related activities. These include:

- **Gender Assessment:** Prior to developing the gender mainstreaming pilot plan, IUWASH conducted a gender assessment of WASH related conditions and behavior. The purpose was to assess the current state of gender relations in the sector, making use of the Gender Dimensions Framework (GDF). In addition, gendered norms and practices related to WSS were also categorized based on the type of gender inequity, including subordination,

marginalization, discrimination, stereotype, double burden and violence. This was reviewed by the GWG (see below) and provided the basis for further mainstreaming strategy development.

- **Gender Working Group (GWG):** IUWASH established a GWG to identify key gender-related issues and provide overall guidance and direction in addressing these. The GWG consists of two members from the national office (one of whom is the designated as the project's Gender Advisor) and one staff member from each region and which includes BCC specialists and assistants as well as one urban sanitation specialist. The GWG meets three times a year to discuss gender related issues in the program and communicate in between by email and phone.

- **In-House Gender Training:** In the working environment, IUWASH conducted gender capacity building for all IUWASH staff to improve awareness of related issues. During this training (which was further supplemented by required DAI staff training related to anti-discrimination policies), staff agreed to follow some basic principles regarding gender relations in the workplace, including: not tolerating any form of abuse (verbal or otherwise) that can make staff uncomfortable; ensuring the availability of gender-friendly facilities at IUWASH offices (separate bathrooms, breast feeding rooms as needed, etc.); ensuring open recruitment for all positions without regard to gender; and adopting a gender tagline that states that "IUWASH promotes women and men equally". Programmatically, it was further agreed that: all IUWASH activities and events should give the same opportunity to men and women to participate; that the involvement of men and women in decision-making should be promoted before, during and after implementation of specific activities; and that any facilities constructed using program funds should comply with gender-friendly standards.

- **Gender Pilot Programs:** To provide a platform for better addressing gender issues in programming, IUWASH developed "gender pilot programs" in each region to gain experience and develop lessons learned that could guide further programming. The following table summarizes these pilot gender activities and details are provided in Appendix 6.

Sector	Pilot Gender Program	Region/City	Key Partner
Water	Customers Communication Forum	SSEI/Maros	PDAM
	Master meter	East Java/Surabaya	NGO FARABI and PDAM
Sanitation	Bio filter septic tank	North Sumatra/Medan	Dinas Perkim
	Microfinance for sanitation	WJDB/Kab. Tangerang	Cooperative Benteng Mikro Indonesia
	Communal sanitation system	Central Java/Kota Surakarta	KPP Laweyan

- **Gender-Responsive Planning and Budgeting (PPRG):** Later in program implementation, IUWASH also initiated a program to lead LG partners through a process of analyzing and developing budgets based on a prescribed set of activities that have been applied under Ministry of Women Empowerment and Child Protection and that would lead to improved attention to gender issues in local government planning and budgeting processes related to the water supply and sanitation sector. Such activities include: Gender Analysis Pathways (GAP), Gender Budget Statement (GBS) and Scopes of Work (SOWs) development for specific programs.

- **Gender Integration in Training and Outreach Activities:** Based in part on work undertaken above, the project also sought to ensure that gender issues were being addressed outside of activities specifically targeting gender. More specifically, the project worked to integrate gender in:
    - **Training activities:** Gender related issues were regularly addressed during specific sessions of a variety of training programs. Most prominent among these was the inclusion of sessions on gender in the USP training program and importantly, in the training of local sanitation construction contractors (also referred to as "SMEs").
    - **Outreach activities:** This involved close collaboration with the national women's association (PKK) in undertaking sanitation-related training and promotional activities in a variety of settings. Though not undertaken in all regions, it provided a range of experiences from which to draw.

3.2 FINDINGS

The following provides some key observations and findings on the part of the evaluators regarding each of the above:

Gender Assessment
The Gender Analysis performed by IUWASH was useful in helping the program to better identify the types of issues it could reasonably address as well as to better define the scope of its gender activities. However, the analysis generally focused on meeting practical, as opposed to strategic, gender needs, and there may have been a missed opportunity in terms of developing a more holistic overview of how gender norms affect WASH services and related decision-making. The analysis also did not explore root causes or enablers and barriers for changing these conditions. Finally, the analysis was done for Indonesia as a whole, and may not have accounted for important cultural or other differences between or within regions. To enhance its gender program in accordance with the Scope of Work, it would be useful to define specific indicators and, very importantly, allocate budget resources to such activities.

Gender Working Group
It has been observed that, maybe due to the fact that no specific outcomes were attached to it, gender activities in general may have been relatively under resourced. The IUWASH Gender Adviser and those charged with implementing the Gender Pilots all have substantial other tasks, and therefore the degree of attention accorded to gender mainstreaming may not have been as pronounced as hoped for.

Gender Pilots
During the final evaluation, the evaluation team was able to visit three of the five gender pilot programs, including: microfinance for sanitation in Tangerang district; Master Meter programs in Surabaya; and the PDAM Customer Forum in Maros district. The evaluation team discussed with key stakeholder staff and met with the beneficiaries of the programs. The team also met with other GWG members to get more information on how these pilots were implemented and may have impacted IUWASH in a broader sense. Comments are as follows:

- **Microfinance for sanitation in Tangerang District**: An important partner to IUWASH has been Koperasi Syariah Benteng Micro Indonesia which has emerged as a leader in the development and promotion of sanitation microfinance products. This gender pilot sought to provide its staff with general training in gender issues and, importantly, introduce "gender friendly toilets" into their product line. Based on multiple interviews, structured discussions and

analyses performed by IUWASH, gender-friendly toilets were defined somewhat differently in each region, but commonly as those: having proper walls, roof and ventilation; located inside the house or easily reachable outside by all family members; sized to be a comfortable space for all hygiene activities; having a proper lock or latch; with a non-slip floor; with a water container properly sized and located; and with enough space for accessories such as soap, towel, mirror, waste bin, etc. Following the training of staff in the above, similar training was provided to local construction contractors, and the concept was further regularly included as part of program promotion at the community level.

Most of those interviewed (cooperative staff, health staff, construction contractors) clearly know the main elements of the gender-friendly toilet, and they are proud of this. The evaluation team found that, while the organization is itself male dominated at higher echelons and was perhaps a bit skeptical of gender training at the onset, they now appear to have an appreciation for the importance of gender mainstreaming and are very pleased with the steps they have taken. Perhaps most importantly, the elements of the "gender-friendly" toilet have clearly been well-understood by local contractors who may carry this forward in other works that they undertake.

In addition to the above it has also been noted that at an individual level customers (both men and women) of the microfinance program were not involved in facility design. This may be due to the need for the cooperative to have a standardized structure, the construction and cost of which can be easily controlled. Additionally, it is noteworthy that all construction contractors are male (as is often the case in Indonesia and elsewhere). Based on information from interviews with stakeholders during field visits, it may be possible to expand this to women in the future.

- **Master Meter Programs in Surabaya City:** This gender pilot program was implemented under an IUWASH Grant Program. IUWASH worked closely with the NGO partner who implemented this program (FARABI) to conducting FGDs to identify existing gender conditions and possible roles in eventual system management; providing gender training to community members; and establish gender-balanced CBOs that would manage the systems. Women's participation in activities was well-tracked (comprising 28% of the total number or participants in various activities), and though less in number, women members of CBOs were accorded relatively prominent roles (as secretaries and treasurers) with men largely accorded roles in system maintenance and repair.

  While the above is laudable, it should be noted that, per site visits and interviews, women members of CBOs are generally accorded roles such as those above in the project area, so it is not clear what impact the gender activity itself may have had, if any. On the other hand, and though it would need to be the subject of additional research, the overall Master Meter activity has very likely had a pronounced impact on women in the beneficiary communities as time in water collection and household expenses on water have decreased substantially, while water quantity and quality have also increased.

  There is a cautionary note here that over-reliance on numbers or percentages of women trained can serve as an indicator in gender programming, but it should not be viewed as a proxy for the quality or depth of women's participation. A similar cautionary note can be extended to many different type of programs, which is to underscore that to best understand changes in roles, status etc., an expanded set of indicators is generally required.

- **PDAM Customer Forum in Maros District**: This activity sought to ensure appropriate levels of representation of women on the water utility's newly established Customer Forum which is intended to serve as a bridge or communication channel between the utility and its customers. As elsewhere, such Forums are required by regulation, but they often either have yet

to be developed or are not functional on any appreciable level. Activities of Customer Forum members can involve surveying their communities to assess important gaps in service provision, identifying issues related to water quality, reporting on leakages, providing guidance on water conservation, or helping to resolve issues of non-payment of utility bills. The Customer Forum of Maros district eventually consisted of 18 men and 10 women. IUWASH conducted several technical trainings of this group which meets on a regular (approximately quarterly) basis to review issues. They can also be called together in the event of special problems or other issues that arise.

This activity was viewed in only a cursory fashion given time and other constraints. The Forum was also very recently established, so it is difficult to measure what, if any, impact the gender activities have had. Likewise, the PDAM believes that it is good insofar as they believe that reports and complaints may have risen due to enhanced involvement of women and attention to gender issues, but there is no data to verify this. Continued support and monitoring of this activity would undoubtedly be beneficial.

Gender-Responsive Planning and Budgeting (PPRG)

As the program progressed, the Ministry of Women Empowerment and Child Protection (PPPA), a member of IUWASH's technical team, suggested to involve its personnel at the local level in the gender mainstreaming process. Based on IUWASH assessments, the program began in 2014 to assist PPPA in implementing PPRG in Kabupaten Malang, Tebing Tinggi (North Sumatera) and Kabupaten Maros (South Sulawesi), and later added Kabupaten Jombang and Kabupaten Mojokerto (East Java).

Based on interviews with key stakeholders, results have generally been very positive. Four out of five targeted LGs emerged from the experience with local budgets considered as "gender responsive", and PPPA officials stated that the activity would not have been completed without IUWASH assistance. The pilot project in Kabupaten Malang, that was visited by the evaluation team, is also well appreciated by stakeholders. Local government offices participating in the FGD (PUPR, PPPA, Bappeda, Finance, and Audit) expressed their appreciation that IUWASH assisted them in continuing the development of PPRG. Notably, the local public works department reported that their water supply and sanitation budget of about IDR 16 billion of water and sanitation budget now meets PPRG requirements. The PPPA office of Kabupaten Malang is also preparing a manual on gender responsive water and sanitation budgeting, featuring IUWASH's projects as an example. Much work can, of course, be done to further bolster this area of activity, but results so far are generally positive and continuing such work in the future under other WASH programs may be beneficial. One issue to be considered in the design of future activities is that PPPA programs introduce gender responsive budgets in all government budgets, whereas WASH is an activity carried out by only one or two LG budget holders.

Gender Integration in Training and Outreach Activities

As related above, the project has worked to integrate gender across a wide variety of areas: in the USP training program; in the training of local sanitation construction contractors; and in outreach through collaboration with PKK (which is also reviewed under the BCC section). While these were not examined from the perspective of gender programming during the course of the evaluation, they further indicate that the project did attempt to make gender a priority beyond the specific gender activities reviewed above.

The effects of WASH improvements on gender roles

Though not yet mentioned above, many WASH improvements have a very direct and often pronounced impact on the role of women and gender relations overall. The impact on gender roles of lower costs for water supply services, less time spent on water collection, improved convenience through improved sanitation facilities, and lower disease incidence overall (to name just a few) may

be worth tracking in the future. Consideration may be given to expanded data collection as concerns the impact on gender of the main interventions pursued by IUWASH and others in the future.

3.3 CONCLUSIONS

By implementing the gender pilot projects, IUWASH has made a serious start with mainstreaming gender in its program activities. The pilot projects have generated important experiences and lessons learned and introduction of the "gender-friendly toilet" and PPRG activities were especially useful. Emphasis in IUWASH gender pilot projects has been on giving the same opportunities to men and women and on providing water and sanitation facilities with gender friendly standards. There has been less attention for involving both men and women in decision making processes and there is scope for developing a more strategic and holistic gender approach. A suitable set of indicators to measure the impact of gender activities still needs to be developed and/or integrated in existing indicators.

3.4 RECOMMENDATIONS

The following are the key recommendations emanating from the above:

Gender Mainstreaming:

a. Decide at an early stage (in design or start-up) the extent to which gender should be mainstreamed under IUWASH Plus and ensure that this is backed up by the resources (staffing and budgets) necessary to succeed in such programming.
b. Undertake additional analysis at the early stages in program implementation, including a review of current sector literature and approaches, with the purpose of developing a more holistic gender approach and identifying the barriers and enablers for changing current conditions. Importantly, and to the extent feasible, disaggregate data by region or cultural setting and allow for varied implementation approaches that respond to such settings.
c. Ensure that in addition to providing equal opportunities and gender friendly WASH facilities, there is sufficient attention for applying and monitoring of participative and gender sensitive decision making processes.
d. Encourage expanded use of women's organizations such as PKK in the implementation process, while being aware that these often are volunteer type of organizations.
e. Work to expand the involvement of women (or indeed men) in what may be perceived of as non-traditional roles (such as construction), but where opportunities may in fact exist.

Monitoring and Evaluation

f. Develop indicators that measure both process and outputs and that provide for qualitative assessment of progress.
g. Continue to critically analyze the impact of both specific gender activities as well as more general WASH activities on various segments of society and gender.

4 EVALUATION QUESTION NO 3 – IUWASH BCC APPROACH

Evaluation Question 3: How have the district and city governments, communities, and households in the different regions of Indonesia benefitted from the Behavior Change Communication (BCC) in WASH approach developed and implemented by IUWASH?

4.1 INTRODUCTION

Behavior change communications (BCC) under IUWASH has largely focused on supporting the MOH-led STBM program in expanding its coverage to urban areas. In light of project targets and limited resources, the project focused especially on the first STBM pillar which seeks to expand access to improved sanitation facilities (specifically seeking to end the practice of open defecation), but also provided support to STBM pillars related to handwashing with soap, domestic water supply management and domestic wastewater management.

In the initial half of the program, and while some progress was registered in increasing access to improved sanitation facilities, the direct application of STBM which had proved effective in rural settings, met with much more limited success in the urban context that IUWASH operates in. Reasons for this varied and included issues related to differences between rural and urban areas as concerns the physical environment, household economic status, land tenure, community cohesion, and very importantly, environmental requirements and regulations which call for more substantial (and costly) civil works for improved sanitation facilities in urban areas (as opposed to rural areas where very low cost and rudimentary upgrades are generally deemed acceptable). Also, there was generally limited understanding of or experience with the STBM approach among many of the program's partner local governments and a commensurate lack of support for STBM activities in terms of staff time or local government budget allocations.

In addition to the above, there were also almost no national initiatives outside of STBM that targeted household level sanitation improvements. Exceptions to this were the ADB-funded USRI program which focused on the development of communal wastewater facilities and some smaller sewerage development initiatives. At the request of MPWH, IUWASH became significantly involved in the former, but partly after facilities had been constructed, thus allowing for sometimes limited engagement during critical planning and implementation stages.

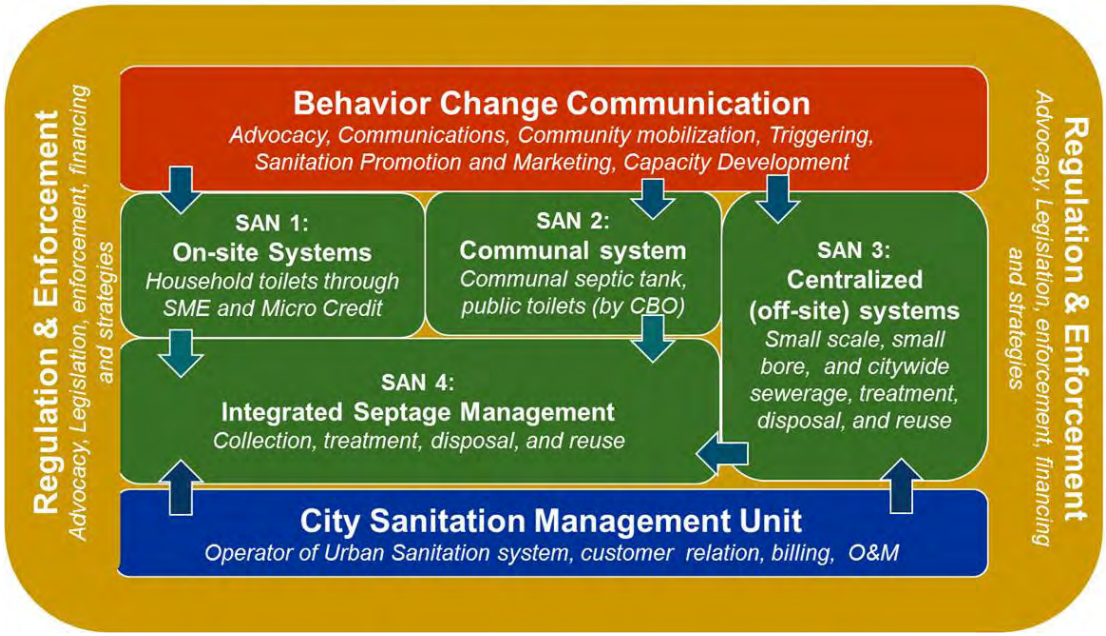
Mid-Term Evaluation and Subsequent Progress

The above issues were highlighted during the course of the project's Mid-Term Evaluation Review (MTER) which was undertaken at the end of 2013. This review also defined several corrective measures which the program was advised to undertake. These included the development of a strong theory of behavior change, the improvement of coordination between the project's regional operations, as well as improved coordination within regions to better synchronize BCC activities with infrastructure initiatives. It further underscored the importance of using BCC in the development of the broader enabling environment.

In response, IUWASH developed a BCC Strategy and Action Plan that set forth the overall strategy, direction and detailed activities for sanitation promotion and communication through project completion. This document, which was subsequently reviewed and approved by USAID, underscored the role of BCC in increasing and mobilizing demand for improved services, as well as in ensuring that improved facilities are properly used and maintained. Notably, and given that

demand for piped water connections was already generally very high, the document further clarified that BCC activities for water supply could provide limited attention to hygiene education (including behaviors related to handwashing with soap, HWWS, and point of use water treatment), but that the bulk of attention would be on increasing demand for improved sanitation facilities. Some key themes that guided the project's work under this BCC Strategy and Action Plan further included:

- Improving the inclusion of status, lifestyle, and other non-health motivators in behavior change messaging, as opposed to overly focusing on health aspects;
- Continuing and reinforcing engagement with enablers of sanitation improvements, including policy-makers, service providers (sanitation entrepreneurs, septage management concerns, etc.), finance providers (microfinance institutions, GOI initiatives such as PNPM Mandiri, etc.);
- Substantively contributing to institutional development and strengthening at the local level (such as through UPTD development), as well as at the national-level through further development and dissemination of the Urban Wastewater Management Framework (UWMF—see graphic).



As part of the above, the project organized several national and regional-level workshops to ensure contributions and buy-in to the BCC Strategy, as well as to improve exchange between regional BCC specialists and improve synchronization of sanitation programming among regional specialists. Efforts further included:

- **Urban sanitation promotion guidance:** This involved joint development of an Urban Sanitation Promotion (USP) Guide which was designed to adjust approaches under the STBM program to the urban setting (and hence is sometimes referred to as the Urban STBM Guide). This Guide was endorsed by all key IUWASH partners (Bappenas, MOH, MPWH) and has since been widely used in TOT and other training programs at the local government level, as well as by at least one of the MOH's regional training institutes.

- **Information and educational materials:** In support of the above, multiple materials were developed, including a revised F-Diagram exercise set, HWWS brochures, various stickers, as well as testimonial videos for both household and communal sanitation systems.

In addition to project-level publications, IUWASH also supported local partners in the development of a wide range of other promotional materials for their products and services, including those related to microfinance, facility construction, desludging services, etc.

- **Micro-Finance programming:** Viewed as a critical element of the enabling environment, more concerted efforts were applied in the development of microfinance programs in several program locations with progress registered especially in Kabupaten Tangerang, Kabupaten Bandung and Kabupaten Jombang, and experiences from each figured prominently in a National Microfinance Workshop held in early 2016.

- **Sanitation marketing training and support:** Recognizing that development of technical and business management capacity of local construction contractors would be key to responding to any increased demand for improved sanitation, the project built on existing STBM materials to develop and roll-out training programs for sanitation marketing and, perhaps more importantly, SMEs to better prepare them for the increased demand generated through the above. This was a collaborative effort with substantial input provided from the regional level as well as MPWH and others and further included sessions on hygiene behavior as well as gender, providing a degree of exposure for construction contractors to such issues.

- **Technical and support materials:** This included the development by Sanitation and BCC Specialists of several flip-charts and easy-to-follow technical guides for household (on-site) and communal sanitation systems.

- **Policy/Budget advocacy:** Though generally much more limited in scope, this involved collaboration between BCC and Governance Specialists in the development of local government regulations underscoring their adherence to and support of STBM, as well as advocacy for increased budgets for sanitation promotion in general and, in several instances, the development of LG policies on broader support of STBM.

- **National BCC events:** FGD with key national stakeholders (government and donors) for readdressing the key elements of the BCC strategy in line with the conditions and requirements of the urban development context and, in a separate event, socialization of the newly formulated BCC strategy with all regional IUWASH BCC staff.

4.2 FINDINGS

Overall and through the above efforts, district and city governments, communities and households in IUWASH target areas have definitely benefited from the project's BCC work, with one clear indicator of achievement being the number of people reached with improved access to sanitation facilities. This was confirmed in a variety of settings at the community level where many beneficiaries are clearly proud and directly benefiting from new facilities; local-level promotional staff and especially MOH Sanitarians and others who remarked especially on the utility of successfully linking microfinance to their own efforts; as well as national-level agencies, which expressed appreciation for the involvement of IUWASH in BCC programming. However, several areas of further need or attention were also highlighted. The following summarizes key observations and findings which were developed based on field visits and interviews with program beneficiaries, stakeholders and program staff during the evaluation. These include:

BCC Strategy

The BCC Strategy and Action Plan developed in response to the MTER and subsequently approved by USAID clearly led the project to correct multiple deficiencies and make substantial contributions to not only IUWASH achievement of targets, but the sanitation sector in Indonesia in general. However, based on reviews of the document and discussions with a variety of stakeholders (both internal and external to the project), it could be improved upon. More specifically, it reflects the communication for social change model of Figueroa, et al. (2002)[6] as shown in the graphic below, but lacks detail as concerns the various steps in the process and what should be done if the expected result is not achieved. IUWASH also used the ecological system theory[7], which is a comprehensive theory in human behavior development, but which was not explored further to define the strategy. In the search for a theoretical construct, a focus on social marketing may provide a more appropriate base from which to build.

Figure 1 IUWASH BCC strategy

While the theoretical basis should be revised, especially in light of the experiences gained since the Strategy's development, other areas require additional attention. One of these relates to desired behavior(s) targeted by behavior change activities. Importantly, all IUWASH BCC staff correctly mentioned that the desired behavior is "the use, operation and maintenance of improved sanitation access" (as was agreed to by USAID), not simply "building or having improved sanitation access". However, within the Project Monitoring Plan (PMP), there is no indicator to measure change in behaviors related to use and maintenance and hygiene practices. The only indicator of BCC (at least as it has traditionally been understood in WASH programming) is the number of households with improved access. It can be noted that an earlier indicator on HWWS was in fact removed as a targeted outcome under IUWASH in response to MTER recommendations. Nonetheless, the project continued to place emphasis on BCC as it relates to hygiene practices and has also continued to conduct surveys regarding changes in this important area. However, this has been undertaken outside of the formal programming framework as represented in the PMP. More to the point, the extent to which ownership of improved sanitation access reflects appropriate use, operation and maintenance and improved hygiene behaviors, is by no means certain. This may have allowed the project to better focus its efforts on its high-level results, but may have also served as a missed opportunity in terms of behavior change. Future USAID WASH programming should review this important issue in detail and consider providing for an expanded set of sanitation and hygiene related indicators.

[6] Figueroa, M.E., Kincaid, D.L., Rani, M., Lewis, G.L. (2002) Communication for social change: an integrated model for measuring the process and its outcomes. New York, NY: Rockefeller Foundation.

[7] Bronfenbrenner, U. (1979). *The Ecology of Human Development: Experiments by Nature and Design*. Cambridge, MA: Harvard University Press.

Another area relates to the need, as part of the BCC Strategy, for more periodic reviews and adjustments to approaches and action plans to more proactively identify and respond to lessons learned and emerging trends and developments (which is especially important in the context of sanitation development in Indonesia which is undergoing rapid change). Such reviews should be done with broad participation of IUWASH specialists which, based on interviews and field visits, may have a tendency to revert to earlier promotional schemes. Such earlier schemes generally focused uniquely on the health benefits of improved sanitation facilities, as opposed to approaches and messages espoused in the Urban Sanitation Guide which also highlight their contributions to individual pride and status. Moreover, and despite involvement in the development of the BCC Strategy, many such specialists also clearly forgot about its existence (perhaps also owing to the lack of an Indonesian version, which is another item to be corrected). There have likely been more limited opportunities for regional staff to share lessons learned which could also be addressed through more regular reviews.

Finally, engaging with the STBM unit within MOH, the local government health agencies as well as other key actors and partners (PKK, MFIs, etc.) should also be viewed as critical to the overall BCC Strategy development process. For instance, while the MOH endorsed and now uses many approaches and materials developed by IUWASH, and is in fact expanding their application, interviews with some MOH/STBM staff suggest that further clarification is required of key differences between urban and rural sanitation promotion, in order to achieve a common understanding of WASH promotion in urban areas.

Urban Sanitation Promotion (USP) Guide

Since its development, the USP Guide has been widely accepted and used by health offices both with and independent of IUWASH assistance. However, the Guide was developed very late in the program and its effective use poses some important issues. Prominent among these is that the Guide is less of a step-by-step manual and more of a tool for broad engagement, meaning that very many details need to be worked out at individual locations based on the availability of resources such as, for instance, microfinance. This is in part addressed by IUWASH's inclusion of other stakeholders in USP trainings in addition to health staff upon which the project has relied for much BCC work. Such other stakeholders include MFIs, SMEs, and PKK volunteers. The latter is noteworthy as PKK volunteers have one of the strongest networks in Indonesia, from community to national level which makes them a strategic partner to many programs, including IUWASH. The need for broad engagement is further addressed by national-level buy-in and expanded use of the Guide well beyond IUWASH interventions. Nonetheless, given that the sector is in a state of flux and that programming can vary significantly among and within regions, the process of applying the USP should be viewed as subject to much adjustment and adaptation.

While appreciation for the Guide appears to be pronounced, it is also worth underscoring that the Guide itself calls for a multi-pronged movement within which promotional efforts are backed-up by commensurate attention to the other elements in overall urban sanitation supply chain and enabling environment as represented in the Urban Wastewater Management Framework. In brief, simply training people is not enough and additional efforts need to be applied or there is a risk of frustrating those that have actually benefitted from the training.

Another area of concern relates to the "cascade" approach to the USP training whereby IUWASH conducts training courses at three levels:

- The first develops Master trainers (those who have facilitation skills and familiarity with STBM;
- The second seeks to develop trainers (trained by Master trainers, alumnae of the first level);
- The third seeks to develop urban sanitation promoters (trained alumnae of the second level training).

While the above is logical, as with any such approach, there is a risk that the quality of training, as well as required follow-up and mentoring, could be deficient if not well supervised and supported. This cautionary note is backed up by findings under other donor programs as concerns decreasing quality and follow-up under other STBM training program initiatives.[8]

Engagement with LG health structure

In its activities at the LG level, IUWASH is supporting and relies heavily on sanitarians and health volunteers mostly working in LG health agencies, who are more familiar with the use of traditional health messaging in sanitation promotion as used in rural areas. Also, many of IUWASH's own staff stress the importance of health messages over other motivators such as status and pride, for instance. While a degree of flexibility in approach and messages is in fact desirable (in order to respond to different opportunities and needs), the project should do more in developing a common understanding among those involved in the promotion process regarding the use of such approaches and messages. Together with other comments from national partners (in particular, MOH, Bappenas and MPWH) which suggested other minor adjustments, another review with partners of the USP Guide will clearly be useful. Such a review should include the overall approach, training process, support materials, how requirements in other related areas can be addressed, follow-up mechanisms, etc.

Sanitation marketing support

As concerns sanitation marketing training and support (including that related to SMEs which is dealt with in subsequent sections), the project was likewise relatively late in introducing these in program implementation. While it has now amassed a degree of experience, capturing this experience and adjusting sanitation marketing strategies and support (as well as materials) in any follow-on activity will undoubtedly be beneficial. In this light, consideration should be given to providing more uniform support to various partner agencies. For instance, in the case of MFIs that have worked with the program, some have developed sanitation product brochures with project assistance while others have not yet had such support. Additionally, while such materials may target areas that are not directly related to health and hygiene (such as brochures on the availability of microfinance for assistance in facility construction), the project or future sector programs may look at these (if appropriate) as opportunities to reinforce key health and hygiene messages.

Aside from the project's immediate preoccupation with increasing access to improved sanitation facilities, IUWASH was likely involved in septage management within which BCC has also had a prominent role. Specifically, the project has worked in multiple locations to develop appropriate septage collection disposal and treatment services which must necessarily be put into place in support of servicing the new sanitation facilities. Examples include community level desludging services (such as in Pademangan in North Jakarta), the project's work with PD PAL Jaya in DKI Jakarta, and support in the establishment and/or strengthening of local government implementation units ("UPTDs") in numerous IUWASH locations. In several such instances, the project has successfully developed partnerships between the relevant LG units and the PKK which, as mentioned above, is well-indicated for such work. One cautionary note is that while the involvement of the PKK should be encouraged, members may not always have the time available for such work and, as is the case with any volunteer organization.

The above discussion on sanitation marketing also prompts an important question regarding the availability of septage management (collection, disposal and treatment) services. While the project

[8] Presentation on Building Rural Sanitation Capacity Nationwide in Indonesia", Deviariandy Setiawan, Water Week, Washington DC, 5 April 2016

appears to have demonstrated well that BCC work, when linked to microfinance and SME development, can yield appreciable results, there is a serious concern that, if septage management services remain unavailable, households that make investments in new systems will have a major problem in that they will have no reliable service upon which to rely for periodic emptying of their septic system. Not only would this undoubtedly prove frustrating to the households, but it could also create important public health and environmental problems. The project has been well-aware of this, and its programs in septage management underscore that it has taken strong measures to address this. However, given the critical nature of septage management at a municipal level, local governments must be committed to addressing this or consideration should be given to discontinuing support in sanitation promotion at the community level.

The above indicates that it would be useful that future urban sanitation promotion initiatives (with strong participation by both promotional staff and technical specialists) review the wide range of approaches and materials developed under IUWASH, identifying what works best and how linkages between various aspects in the communication process can be reinforced. Any such review should, of course, be done at the beginning of any new program.

Sanitation Microfinance linkages to BCC

While some important behavior change and, more pointedly, sanitation promotion concepts were introduced relatively late in the program, this was based on experience and lessons learned gained in the project's early years. One of the more important lessons learned was that demand for improved sanitation was more widespread than originally assumed, but that it was hidden or suppressed by the relative high cost of such facilities. Overcoming this obstacle has been critical to the project's success in sanitation since that time, and almost universally, in areas where sanitation microfinance was successfully developed and linked to sanitation promotion, those responsible for promotion have noted appreciable uptake. Whereas most stated that prior to the availability of microfinance, people were interested in having new facilities but simply unable to afford the service, with microfinance, they were very willing to make the investment needed. This was the case in all relevant locations visited during the evaluation (Tangerang, Bandung, etc.). In fact, it can be argued that, at least in many cases, cost is a far greater barrier to people's adoption of improved sanitation systems than knowledge or understanding of the benefits of such facilities (which already seems to be high). This is not to say that BCC and "triggering" or other promotional work is not needed, but rather stresses the importance of cost and affordability in the household decision-making process regarding sanitation facilities.

Technology Choices and Linkages to BCC

As IUWASH is urban focused and STBM had traditionally been rural focused, the project has focused on the promotion of technologies that meet national standards ("SNI") for urban areas as defined by MPWH. This is substantially different and generally much more costly than adhering to traditional STBM approaches which view any improvement as a step in the right direction and hence acceptable—even if, for instance, it continues to pollute groundwater (or expand disease vectors elsewhere). In some cases, MOH Sanitarians have had difficulty in adapting their promotional work to the higher level of technology required in an urban setting. Additionally, at present, IUWASH has only promoted a small number of different types of household-level facilities. As other types may also conform to the SNI (which deals uniquely with effluent quality), further research in this area is recommended. IUWASH has initiated such work, but results are not yet available, nor are alternative models that can be promoted. This is an area which should be addressed in short order by the GOI with assistance from an outside partner such as IUWASH or another.

In communal systems or small sewerage systems, some beneficiaries were reluctant to get connected because the connection cost is considered quite high. This is also related to the high quality of materials needed to ensure the technology works well, for example, the type of pipes

required to connect. While the treatment facility and main piping is covered usually through a grant (financed by donor or GOI), there are usually no financing options for beneficiaries to connect their house to either communal or sewerage systems and this should also be examined in future programming.

Community mobilization9 in BCC strategy

In promoting on-site sanitation in peri-urban areas, community mobilization is sometimes perceived as not needed. However, the combination of community mobilization and direct ("below the line[10]") sanitation marketing has proven to be effective and efficient[11], especially in a community oriented environment, like in Indonesia[12]. Community mobilization and "below the line" marketing provide more opportunities for people to see what other people around them do and then conform to that condition.

Compared to on-site sanitation (through individual systems), community mobilization is more needed in communal sanitation and sewerage schemes, starting from the pre-construction to post-construction phase. A communal system needs a lot of collaboration and compromises among community members, not only in providing land to install the waste water treatment system, but also during construction and most critically, for operation and maintenance after the installation is done. Discussions with beneficiaries of communal schemes show that factors other than health drive people to connect to the facilities, for example environment cleanliness and the convenience for not having to de-sludge by themselves. Triggers are also related to willingness to conform to the majority (if one person does not conform to community harmony, convenience promised from using the facilities may be disrupted).

Regarding communal systems, and due to agreements with MPWH and programs such as USRI, IUWASH focused principally on post construction activities (getting households to connect to the communal septic tank or sewerage system). With the USRI program in Surakarta, for example, although IUWASH was ready to support community mobilization activities from the pre-construction phase, USRI program management wanted IUWASH to assist them only during the post-construction phase. This is not always effective and it is important that IUWASH gets its approach adopted also during the pre- and construction phases, or to work with IUWASH from the start. Any suggestion of involvement in only the post-construction phase should be viewed with caution.

Roles of Regional Specialists

Interviews and discussions by the evaluation team with IUWASH staff and project partners indicated that, at least in some cases, there is a degree of confusion over roles and responsibilities of staff. This may be due to the evolving nature of project demands which, according to some, were more "siloed" in the beginning and became more integrated as the project deepened its involvement in

[9] Community mobilization is the process of engaging communities to identify community priorities, resources, needs and solutions in such a way as to promote participation, good governance, accountability and peaceful change.

[10] Below the line marketing is focused on individuals and makes use of direct communication channels. Above the line marketing is focused on increasing brand recognition and is making use of mass media such as radio and TV.

[11] Compared to the use of mass media, community mobilization and below the line marketing is more focused on certain target audience, so that USPs can tailor their messaging in a more personal manner, in addition to the fact that the result is measurable, compared to above the line marketing, which give USPs insights about their works. In community mobilization, community and/or community based organizations are expected to get involved in the activities, thus this strategy improves community participation, while in below the line sanitation marketing, the focus is more on motivating audience to buy the product.

[12] For example, in all areas visited, more people want to build toilet or connect to the communal system once there is a pioneer in their neighborhood.

certain areas. One example is local government advocacy which initially was almost entirely the domain of Governance Specialists, but within which BCC Specialists (in accordance with the Strategy) have also played an increasingly greater role. The same was observed between Sanitation and BCC Specialists who early in the program had limited interaction, but later became very engaged in similar sets of activities. In brief, the integrated nature of much work in the sanitation sector calls for a similar degree of integration among program staff and for which the Urban Wastewater Management Framework provides a good visualization.

4.3 CONCLUSIONS

IUWASH has contributed to the development of urban sanitation promotion in Indonesia and its role in this is appreciated by national government agencies and development partners. At the LG level IUWASH makes an important contribution in bringing agencies together in developing and implementing strategies aimed at promoting and achieving access to improved urban sanitation and communities and households in IUWASH target areas have benefitted. The uptake and use of the programs approaches such as the USP guide, other materials, videos and tools is another indicator that the project is achieving an appreciated and positive results.

IUWASH experience shows that applying an integrated approach to marketing of improved sanitation, including promotion focused on multiple motivators, micro-finance, technological options, construction services, promotion and septage management services enhances the uptake of improved sanitation facilities by households in urban areas.

Until recently, many LG agencies and sanitarians were used to only working with STBM designed for rural areas, and the additional requirements for promoting sanitation in urban areas are only partly understood and applied. Strategies and approaches for marketing of urban sanitation need to be further improved and adopted by stakeholders at national and local government level and involved staff will need to be trained. This is a work in progress and will require sustained efforts, resources and time.

4.4 RECOMMENDATIONS

The following recommendations are intended either for IUWASH or, given that it will very soon come to a close, consideration by the follow-on project or other WASH activity that may carry on its activities. Such recommendations include:

a. Support the national and local governments to review and strengthen the application of STBM in urban and peri-urban areas, , including correction of any deficiencies in the theoretical underpinnings, differentiation for various target groups, and identifying indicators for behavioral change. Social marketing and participatory investment planning may provide a useful platform for such a revised strategy and the strategy should more expressly address both water supply and sanitation related programming.
b. The review and revision process should be very inclusive and evidenced-based. Once completed, conduct regular reviews of the strategy to identify key lessons learned and provide for needed adjustments across all project work areas and among all concerned project staff.
c. Based on current and on-going experience, work with partners to review and further improve the USP Guide, providing for improved understanding of key differences between urban and rural approaches to STBM as well as key motivators and how they can best be exploited and continue to provide training to involved LG staff.

d. Use the above reviews and other exercises to adjust understandings among staff regarding their evolving roles in especially sanitation-related activities which are being undertaken in a very dynamic environment.
e. Continue to expend considerable effort to develop and link microfinance programs to both water supply and sanitation. This should be undertaken with a view of synchronizing such programs with other sources of support so that they reinforce and do not conflict with each other.
f. Expand the list of acceptable sanitation facility models that conform to SNI standards that can be built and develop related technical and promotional materials.
g. Ensure that improvements in access to household level sanitation are met with commensurate improvements in critical support services of which septage management is clearly one.
h. Promote the adoption of BC/socialization/participatory design during the pre-construction phases of infrastructure investment explicitly targeting national, regional, and local governments. Any suggestion of involvement in only the post-construction phase should be viewed with caution

5 EVALUATION QUESTION NO 4 – EFFECTS OF IUWASH TECHNICAL ASSISTANCE

5.1 INTRODUCTION

Evaluation Question 4 is formulated as follows:

> *"IUWASH has provided technical assistance (TA) to Government of Indonesia funded initiatives at national level (PNPM, SLBM, etc.) as well as at local government level that increase household and on-site water and sanitation access. How has this technical assistance improved the quality of the systems provided by these Government of Indonesia programs at the household level and how effective was the technical assistance in leveraging additional resources for WASH"?*

In responding to the above question, the focus was on i) Water Utility Performance Improvement, ii) Sanitation Institutional Development and iii) Micro Finance and SME development. As Gender and BCC issues have been described in the previous two chapters, the findings on these issues will not be repeated again in this chapter.

5.2 WATER UTILITY PERFORMANCE IMPROVEMENT

5.2.1 Introduction

The IUWASH Water Supply component aims at achieving the following high level results:

a) Contribute to achieving Indonesia's MDG's by realizing access to improved water supply for 2.4 million people (equivalent to 480,000 households);
b) Lowering the per-unit cost of water paid by the poor in targeted communities by at least 20% through more participatory, transparent, accountable, and financially enabled services.

To achieve these results, IUWASH is supporting 50[13] PDAMs with the aim of improving their performance through a combination of i) capacity building (CI), ii) strengthening of the enabling environment (EE) and iii) mobilizing demand (MD) for safe water supply. For each of these areas, intermediate results have been formulated. It is assumed that improved PDAM performance will eventually result in realizing access to improved water supply for 2.4 million people.

Improved performance of PDAMs is measured through a "PDAM Performance Index (PI)". Baseline data for this index were collected in June 2011 (24 PDAMs), followed by 26 PDAMs in 2012. The PI is measured every six months. It has been agreed between USAID and IUWASH that if a PDAM improves its performance by more than 20% on the PI, the number of new customers realized by that PDAM since the start of the project can be counted as part of the project's high level result. If however, by the end of IUWASH, a PDAM has not increased by at least 20% on the PI, no additional connections will be counted.

IUWASH interventions in the water supply sector are grouped into eight programs, as follows:

[13] Originally IUWASH assisted 52 PDAMs in 54 districts. Water in DKI Jakarta is supplied by private operators which did not receive direct TA under IUWASH. TA to PDAM Kudus was terminated because of mis-management by PDAM.

- WS 1, Improve PDAM Operations: This includes monitoring PDAM performance on the Performance Index, improving energy efficiency, reducing Non-Revenue Water (NRW), improvement of distribution networks, optimizing production capacity and support in GIS/MIS applications;
- WS 2, Improve PDAM Finance: The includes TA in preparing PDAM Business Plans and Tariff Reviews, billing and accounting programs and debt restructuring;
- WS 3, Improve PDAM Customer Relation: This program involves TA in carrying out customer surveys and establishing customer forums;
- WS 4, Raw Water & Climate Change Adaptation: This consists of carrying out climate change vulnerability assessments, providing TA in developing infiltration ponds and other adaptation actions, and facilitating the formulation of and monitoring climate change adaptation action plans.
- WS 5, Water for the Poor: This involves the introduction of Micro Finance schemes for water supply
- WS 6, Water for the Poor: This consists of developing "Master Meter" schemes
- WS 7, PDAM Capital Investment Financing: This involves assistance to PDAMs in project preparation and in establishing their creditworthiness with the purpose of obtaining long term finance for investment;
- WS 8, PDAM Institution & Good Governance: This involves institutional support and TA in training PDAM staff, management and supervisory boards, developing Standard Operating Procedures for various aspects of operation, and assistance to PDAMs in regionalization programs.

5.2.2 Findings

The evaluation mission found that in all PDAM's visited, IUWASH established excellent relations with PDAM management and staff. Without exception, IUWASH TA is highly appreciated and PDAM management expressed that the TA meets their needs and has been of very high quality.

At the start of IUWASH in 2011, assessments were carried out among potential IUWASH districts and PDAMS, based on which IUWASH proposed a draft list of LGs and PDAMs to be included in the project. The list was subsequently submitted to and endorsed by BAPPENAS. An important criterion for PDAM selection was the level of commitment shown by LG and PDAM management. In 2011 IUWASH started to work with 24 PDAMs and with the remaining 26 PDAMs in 2012.

At the start of the collaboration between IUWASH and the PDAMs, a general agreement was signed between IUWASH and the Local Governments concerned, and a 1-2 year action plan formulated for each PDAM. Activities under these action plans partly consisted of needs identified by the PDAMs themselves and partly of activities proposed by IUWASH. In subsequent years action plans for each PDAM were agreed upon on an annual basis.

In the period 2011-2015 there have been an estimated 1,500 TA interventions. The emphasis of IUWASH reporting has been on summarizing the work that was done and the related results per group of activities, as well as reporting on progress on targets for intermediate and higher level results of the project. As a result of this it is difficult to obtain an overview off the coherence and result of the various activities at the level of individual PDAMs.

The activities, outputs and related outcomes or effects of the TA interventions under the IUWASH Water Supply Program are presented in table 5.1 and a summary of key results is presented below:

New Connections and Coverage

a) Over the past 3-4 years (depending on the year IUWASH-TA started), the 50 IUWASH PDAMs increased the total number of connections by 17% from approximately 2.57 to 3.01 million. This is an average increase of 4.7% per year, which is above the average urban population growth for Indonesia of about 2.7%[14] per annum.
b) Based on the total estimated number of households in the PDAM service areas, the 17% increase in connections would translate into an increase in the average coverage in the PDAM service areas from about 31% to 33% over the same period[15].

PDAM Performance

a) PDAMs have increased their score on the IUWASH Performance Index from an average of 38 points in 2011/2012 to an average of 61% in 2015, which is an increase of about 70%. There also exist other performance indexes such as the IUWASH Creditworthiness Ladder (CWL) and the index kept by BPPSPAM. An analysis of these different indexes is presented later in this chapter.
b) Non-Revenue Water (NRW) in the 50 IUWASH PDAMs reduced from an average of about 33% in 2011/12 to 31% in 2015 and 2015. Measuring NRW in many of the PDAMs is not very accurate so this indicator is not very precise; it appears that overall progress in this area is slow.
c) PDAMs have benefitted from IUWASH TA in terms of improved operational efficiency and customer relations, e.g. by
    - improving energy efficiency
    - optimizing (operations of) distribution networks and production installations
    - introducing GIS/MIS systems for network and customer mapping,
    - preparing business plans
    - introducing new billing and accounting programs
    - carrying out customer surveys and supporting customer communication forums
    - by introducing new Standard Operating Procedures in various areas.

    How these activities translate in improving the actual performance of PDAMs in terms of improved energy efficiency or improved performance of the distribution system is not regularly monitored at the project level and therefore difficult to measure.

PDAM Development

d) By providing targeted TA to selected PDAMS in the form of feasibility studies, detailed designs and/or advocacy, IUWASH has been instrumental in increasing the production capacity of IUWASH PDAMs with some 950 liters/second with projects for an additional 4,500 liters/second underway. Over time this added capacity potentially translates into water supply connections for some 85,000 additional households (not accounting for industrial use or service improvements to existing households).
e) About 16,500 new connections have been realized by means of IUWASH supported micro finance (MF) schemes in 19 PDAMs. Micro-finance helps (poor) households to pay for relatively high connection fees and relieve the PDAM from having to pre-finance the actual connection costs for households paying in installments.

[14] Source: World Bank 2015
[15] IUWASH - Annual Summary of Number of People (HR-1.a.) and Percent Increased of Household (HR1.b.) Get Access to Safe Water Supply

f) IUWASH supported the development of master meter schemes in 6 PDAMs with an estimated 1,663 new connections (with another 350 still under construction in Jakarta), all in low income areas and/or informal settlements
g) By providing targeted TA, IUWASH has been instrumental in accelerating and/or leveraging funding for PDAM capital projects for approximately IDR 950 billion, with about IDR 2.0 trillion in projects underway.

PDAM Finance

h) IUWASH developed a monitoring tool for debt restructuring of PDAMs and, on request of MoF, IUWASH is monitoring progress on debt restructuring for 78 PDAMs. IUWASH assisted 10-12 PDAMs in submitting business plans for debt restructuring
i) IUWASH assisted 24 PDAMs in proposing tariff adjustments and reclassifications, of which 17 have been approved and 7 are in process, with average tariff increases of 39%.
j) Since the start of IUWASH, 13 PDAMs have improved their creditworthiness, 18 PDAMs remained more or less stable and for 11 PDAMs the creditworthiness deteriorated. Overall PDAMs improved their ratings on the Creditworthiness Ladder with an average of 3% per year.

Climate Change and Water Resources

k) Climate Change Vulnerability Assessments were carried out in 20 PDAMs, creating awareness for the need to ensure the long term sustainability of raw water resources for water supply. Implementation and follow up on related Climate Change Adaptation Plans is in an early stage of implementation.
l) Some 3,400 infiltration ponds have been constructed with technical support of IUWASH and financial support of the private sector, resulting in improved yields of shallow wells and reduced flooding in surrounding areas.

TABLE 5.1: WATER SUPPLY ACTIVITIES AND OUTPUT[16]

NO	ACTIVITIES	OUTPUTS	REMARKS
		WS 1 - PDAM Operations	
1	Updating PDAM Performance Index (PI) and monitoring	• Performance Index of 50 PDAMs measured on a bi-annual basis since 2011 (for 24 PDAMs) and 2012 (for additional 26 PDAMs) • On the IUWASH PI, PDAM-performance increased from an average baseline score of 38 in 2011/12 to a score of 61 in 2015 (average increase of 70%)	• See separate section on IUWASH PI
2	Energy Efficiency Audits (EEA)	• Energy Audits completed in 14 PDAMs and 2 PDAMs ongoing • Pump replacements proposed for 8 PDAMs • Proposals to install check valves, variable speed drives, etc. for others PDAMs. • 6 PDAMs are following up on (part of) EEA recommendations	• Individual PDAMs measure progress on energy efficiency. • At the project level there is no measurement of the actual energy efficiency of the PDAMs
3	Non-Revenue Water Reduction	• NRW programs has been implemented on 25 locations divided of 5 IUWASH regions. • PDAM staff received classroom and on the job training • TA for pilot projects on DMAs in 7 PDAMs; NRW in pilot DMA's decreased from 2% up to 37%.	• Based on data in the IUWASH Performance Index provided to the evaluation team, average NRW decreased from 33% in 2011 to 31% in 2015. • Measuring NRW is difficult and the increase in NRW may have all kind of different reasons. • In Jayapura the mission observed a pilot project on replacement of about 400 illegal or non-metered connections, which was replicated several times by the PDAM
4	Distribution Network Improvement	• PDAM staff received classroom and on the job training • Studies/surveys on distribution improvement carried out • Develop zoning of distribution systems • DED for distribution network improvements in 13 PDAMS & as-built drawing (using GIS) for 20 PDAM • Support distribution improvement through new constructions of spring capitations, transmission installations and network replacement • Impact monitoring activities for distribution improvement • IUWASH facilitated and supported investments in a number of distribution improvement projects	• The mission did not have access to data on impact monitoring of distribution improvement activities.

[16] Source: IUWASH progress reports)

NO	ACTIVITIES	OUTPUTS	REMARKS
5	Production Capacity & WQ Management	• FS and/or DED prepared for (uprating of) WTPs and other parts of the production system in 12 PDAMs • Support constructions of water supply systems, water towers and reservoirs (IKK) • IUWASH is facilitating and supporting the development of an additional 5,000 liters/second production capacity that potentially supplies water to some 85,000 HH • Provided training on SOP of O&M of WTP • SOP for WTP operations and chemical dosing and water quality monitoring	
6	GIS/MIS Support	• Staff of 37 PDAMs trained in GIS/MIS applications • PDAMs supported in obtaining software • Cooperation with PDAM Kota Malang and Kabupaten Bandung to develop GIS in 10 PDAMs • About 25 PDAMs are currently working on developing and operationalizing their own GIS databases and systems	
		WS 2 - PDAM Finance	
7	PDAM Business Plans (BP)	• 19 PDAMs completed BP's that were approved by the Mayor/ Bupati, • 22 PDAMs preparing BP's and.or in process of approval • 2 discontinued	
8	Tariff Review/ Reclassification	• Tariff adjustment approved for 11 PDAMs, 4 in process • Tariff reclassifications approved for 6 PDAMS, 3 in process • Overall increase in average tariff 39%	• Water tariffs in Indonesia are generally just sufficient to cover for O&M I costs and therefore any tariff increase is an important contribution to financial sustainability of PDAMs
9	Billing & Accounting Programs	• New computerized billing & accounting systems for 14 PDAMs completed or ongoing	
10	Debt Restructuring	• IUWASH assisted 10-12 PDAMs in submitting business plans for debt restructuring • IUWASH developed monitoring tool for debt restructuring and, on request MoF, IUWASH is monitoring progress on debt restructuring for 78 PDAMs • On the job and classroom training PDAMs finance staff.	• IUWASH assistance on debt restructuring helped PDAMs to increase financial performance • This activity relates to IUWASH intermediate result IC-2.

NO	ACTIVITIES	OUTPUTS	REMARKS
		WS 3 - PDAM Customers	
11	Customer Satisfaction Surveys (CSS)	• CSS carried out in all PDAMs, parallel with business plan preparations. Training on CSS for PDAM's, (willingness to pay and willingness to connect) • Training on media design, media relations and social media for PDAMs • Development of customer relation SOP, and support implementation on PDAM	• CSS activities supported business plan preparation
12	PDAM Customer Forum (FKP)	• Development of PDAM Customer Forum toolkit and booklet. • Training on PDAM operations (finance, planning, production and distribution), FKP roles and responsibilities and communication and promotional strategies and campaigns, • Facilitate capacity building for forums that have been formed, on PDAM and forum roles, and communication and advocacy strategy. • IUWASH assisted PDAMs to establish FKP in 21 locations; • FKPs were already established in 2 PDAMs, IUWASH focused on training and monitoring • FKP monitors and reports on PDAM service performance	• Contributes to MD-3 civil society groups reporting on PDAM performance
		WS 4 - Raw Water and Climate Change	
13	Climate Change Vulnerability Assessment (CCVA) and Adaptation Planning	• CCVA's carried out in 20 PDAMs • Vulnerability Adaptation Action Plans being formulated and followed up • Local Regulations (being) prepared by various LGs	• Creates awareness for CCV and for the need to take an active role in securing the PDAMs water resources • Follow up still in early stage but useful. Activity contributes to achieving intermediate result IC-4 • Emphasis on climate change is useful but also important to draw attention to issues such as overpopulation, urbanization and deforestation
14	Implementation of Infiltration Ponds (IP)	• >3400 infiltration ponds built in 9 districts, with funding from private partners (CCFI, Nestle) and IUWASH • At a local level infiltration ponds have a positive effect on yields of shallow wells and reduce flooding • Difficult to assess the overall effect of IP's on aquifers • Also villages/communities plan construction IPs from own sources	• In Salatiga, as a result of constructing 300 infiltration ponds, villagers reported improved yields of local shallow wells and reduced flooding; the village is planning to build 200 additional ponds with their own funding (dana desa)

NO	ACTIVITIES	OUTPUTS	REMARKS
		WS 5 & 6 - Water Pro Poor	
15	Micro Finance (MF) for Water Supply	• 16,483 new connections in 19 PDAMs financed with MF of (10 branches offices of) 4 different banks and 17 local cooperatives (some locations have multiple schemes) • Socialization and monitoring ongoing	• Many PDAMs apply high connection fees and MF facilitates access by HHs • MF relieves burden on working capital of PDAMs • Helps in achieving IC-7 on improved satisfaction of poor customers with WSS services • Contributes to achieving EE-4 on access to MF for low income households
16	Master Meter Program (MMP)	• 6 PDAMs participated in MMP • 1.663 HH connected to master meters. 350 under construction in DKI Jakarta • Support to set up KSM and capacity building KSM and communities	• MMP improve access to Water for poor and/or informal settlements and helps achieving IC-7 (satisfaction of poor residents with WSS services) • PDAM Solo sees MMPs as a temporary arrangement for attracting new customers
		WS 7 - CAPEX and Finance	
17	Project Preparation Capital Investments Finance	• FS, DED and advocacy for funding for PDAMs, potentially increasing capacity with 5,175 lps, for 85,100 HHs, • Potential leverage funding from APBN: Rp 651 billion, APBD: Rp 486 billion, PDAM: Rp 252 billion, and private sector (PPP): Rp 1,513 billion, Total: Rp 2,901 billion.	• Catalyst role of IUWASH TA is important in leveraging of funding and preparation of new investments in the sector and may have a positive impact on the quality of project preparation. • Contributes to achieving IUWASH intermediate results EE-1, EE-2 and EE-3 (refer appendix 8)
18	Credit Worthiness Ladder	• IUWASH designed Creditworthiness Ladder tool • progress on CWL rating for 42 PDAMs for 2014 (as compared to 2011): o 13 PDAMs improved on CWL o 18 PDAMs show a stable scoring on the CWL o For 11 PDAMS the CWL rating decreased	• MoF is aware of the CWL for monitoring of PDAMs • Bappenas is incorporating CWL in their NAWASIS monitoring database for LG / PDAM performance • ADB and WB use CWL in program development • Waiver of PDAM loans from Central Government in 2016 will have positive impact on PDAM creditworthiness
		WS 8 - PDAM Institutional	
19	Establish Standard Operating Procedures (SOP) and institutional support	• 21 PDAMs are in process of or have prepared and adopted SOPs on various aspects • Certified management training for more than 40 PDAM managers • Classroom training for all PDAM supervisory boards • Key officials in LG Visioning workshops creating awareness and understanding on water supply issues at the LG level	

NO	ACTIVITIES	OUTPUTS	REMARKS
20	Regionalization Raw Water, PDAM	• TA for regionalization efforts around water resources for various PDAMs • Promising results around regionalization project in Medan • Positive experience with PDAM Jayapura, which is owned jointly by the district and city of Jayapura • Otherwise mixed results	• Many PDAMs in Indonesia are too small and often urban areas obtain raw water from nearby districts. Regionalization efforts need to be supported

Reporting on activities and related results

From the above list it can be seen that an impressive number of TA activities has been carried out achieving considerable results and outcomes. IUWASH reporting is very much focused on activities, targets and results achieved at project level, which are part of the project contract. The PDAM Performance Index measures progress in PDAM processes and only to a limited extent progress in absolute terms. This makes it difficult to see what the impact of the TA program has been in terms of helping individual PDAMS to improve performance in absolute terms and overcome key constraints that keep them from achieving higher coverage and/or improved service levels.

The importance for IUWASH of achieving pre-defined targets (e.g. improving creditworthiness for at least 20 PDAMs, 20 civil society groups reporting on PDAM performance, etc.) may not always have been in line with the priorities of individual PDAMs. In some cases (see example below), IUWASH may understandably have allocated resources to achieving pre-defined contractual targets, instead of focusing on resolving the constraints of individual PDAMs.

Coherence and focus of IUWASH TA

In the course of the final evaluation, 11 PDAMs were visited. In a number of these PDAMs, the focus and progress in the TA programs was very clear and progress very good (e.g. the city of Malang, the city of Surakarta, Gresik, Sukoharjo). These PDAMs generally have (relatively) strong management with clear objectives and business plans in place, who are able to make the best possible use of IUWASH support. IUWASH TA services in these PDAMs are well focused and coherent and align with the plans and programs of the PDAMs concerned.

In other (mostly weaker[17]) PDAMs (e.g. Jayapura, Probolinggo, Jombang), the long term objectives of IUWASH TA are not very well defined, and it is also not clear how and if with IUWASH support the PDAM is going to resolve the key constraints that keep it from improving its service levels and/or significantly increasing the number of connections. Thus in some PDAMs visited, the focus and cohesion of TA activities was not fully clear, and in some PDAMs, the question arises if the volume, duration and intensity of TA will be sufficient to achieve tangible improvements.

Example

In the city of Probolinggo, a key constraint of the PDAM is that it is not able to build up sufficient pressure in its distribution system, which causes poor service levels during peak hours. Also, groundwater sources are of good quality and easily accessible for households.. The combination of these two factors appears to be the major cause that the PDAM in recent years has not been able to significantly increase its coverage.

During the past five years, IUWASH has provided training and support in NRW reduction (completed in 2015), improving the distribution network (completed in 2014), setting up GIS, preparation of business plans, and setting up a customer's forum. A Climate Change Vulnerability Assessment and Adaptation Planning were started in 2014, and the assessment of creditworthiness was also completed as a part of IUWASH support.

Notwithstanding sustained IUWASH support during the past years, the key constraints of the PDAM persist. Although the initial focus of the TA (NRW, distribution system, GIS, customer forum) appears well targeted, the PDAM is not making significant progress in improving its service levels. Since 2014, the focus on the distribution problems was reduced and shifted to the CCVA and CC Adaptation Planning and CWL. However, the PDAM appears to have ample access to water resources and (although important) this does not appear to be the first priority issue. The question is whether IUWASH TA should have continued its focus on helping the PDAM in resolving its distribution constraints, and if the support has been sufficient in size and intensity to make a real impact.

[17] Weaker in a sense that management in these PDAMs may be weaker and generally these PDAMs show lower performance in terms of efficiency and service delivery, as observed by the mission and confirmed by the BPPSPAM index

The above example does not imply that there is no plan behind IUWASH TA, but it appears that clear, long-term objectives in the collaboration between these PDAMs and IUWASH are not well defined. In most cases, the key problems of a PDAM are pretty clear, and the TA is also trying to address these issues from year to year. However, a longer-term strategy with clear and measurable objectives and targets is lacking and this has the risk that the program loses its focus and commitment.

The evaluation team observed that, in some of the visited PDAMs, the enabling environment conducive to improving performance is not or only partly in place. A supportive and stimulating shareholder (LG), capable PDAM management and commitment from all concerned are important for achieving improved performance. IUWASH is addressing these issues by organizing visioning workshops for key stakeholders in LGs through advocacy for increased WASH budgets, by supporting increased tariffs, etc. However, obviously these issues are not within the direct control of the project, and although the general development hypotheses underlying IUWASH appears to be sound, the enabling conditions are not necessarily in place in each individual PDAM.

It should also be mentioned that a number of PDAM constraints cannot be resolved by TA only and often require substantial investments in additional production or improved distribution capacity. As water tariffs are in most cases only sufficient to cover only the costs of operation and maintenance, PDAMs are depending on funding from third parties (mostly APBN) for capital investments.

To overcome the issues of commitment, focus, funding of capital investments, and size of future TA to PDAMs, it would be useful if, in any follow-on activity:

- Collaboration with a PDAM starts (as in the current project) with a thorough assessment to identify key constraints that keep it from improving its service levels and increasing coverage.
- Joint formulation of a Strategic Plan, with clear objectives, intermediate outcomes and targets to be achieved for the coming period
- Specify the resources needed in terms of manpower, capital investments and TA.
- Obtain commitment from key stakeholders, such as LG, provincial and national government and IUWASH itself.

Based on the above, IUWASH management will then be able to determine the kind and quantity of TA resources needed to help selected PDAMs to achieve the set objectives, and this will eventually determine the number of PDAMs to be included in IUWASH plus.

Informing Policy, improving Program Development and Implementation Capacity

One of the questions in the final evaluation relates to what extent IUWASH has contributed to informing policy, improving program development and increasing implementation capacity. Below follows a summary of the findings of the evaluation mission on these issues:

- Based on the Energy Efficiency Audits carried out in 14 PDAMs, IUWASH, in collaboration with the Indonesia Clean Energy Development Project, developed an Energy Efficiency Audit Guide that has been adopted by Adopted by MPWH in a workshop in 2015;
- IUWASH developed and tested the Creditworthiness Ladder as a tool to conduct preliminary credit risk assessments of PDAMs. The tool has been applied to 42 PDAMs and is being used by the Ministry of Finance in screening PDAMs for lending purposes and by BAPPENAS as a module in the National NAWASIS system. Also other development partners such as ADB and World Bank use CWL as a tool in program development.
- IUWASH developed a tool to monitor progress with regard to debt restructuring of PDAMs and on request of the MoF IUWASH is monitoring progress in 78 PDAMs.
- IUWASH TA has provided targeted support to PDAMs in accessing infrastructure financing from national and local governments, private parties and development partners.

IUWASH TA has been used to carry out feasibility studies and DED and for advocacy purposes, which accelerated program development processes and leveraged funding from various sources.

- The Climate Change Vulnerability Assessments and the formulation of adaptation plans have created awareness at LG and PDAM level for issues such as urbanization, deforestation and climate change and the effects on water resources and PDAM infrastructure and for the need to formulate adaptation programs to ensure sustainability.
- Other development partners such as ADB and World Bank are making use of IUWASH data and information in the development and preparation of new programs and loans.

5.2.3 Analysis of the IUWASH Performance Index

The IUWASH program measures its contribution to PDAM performance using a single proxy indicator called the IUWASH PDAM performance index (PI). The IUWASH PI uses 67 process and relative performance indicators, and only 1 absolute performance indicators to create a single performance score on the scale of 0 to 100. The IUWASH PI is divided over 6 categories that include financial, operational, human resources, customer, and technical performance. The IUWASH PI was created by the IUWASH project for the purposes of measuring change in internal / process performance of PDAMs, to be used as a management tool. The IUWASH PI is project specific and not meant to measure absolute performance.

The urban water supply sector has had a PDAM PI that has been in existence for many years with the last major revision in 2007-8. Legally mandated, the data collection system managed by BPPSPAM collects data from almost four hundred PDAMs through annual financial audits conducted by BPKP (Badan Pengawasan Keuangan dan Pembangunan/ Finance and Development Audit Board). The BPPSPAM index includes 18 indicators across 4 categories (financial, service, operations, and human resources). The BPPSPAM index score uses a scale from 0 to 5.

Despite the collection via external audits there are concerns with the quality of the BPPSPAM index scores. Concerns stem from the operational and technical indicators that BPKP collects directly from PDAM operational reports are not always based on direct measurement or rigorous calculation. The IUWASH project also notes this same limitation with their index in the project Performance Monitoring Plan. However, IUWASH, through its regular technical level interaction directly with PDAMs, is likely to avoid blatant inaccuracies in the PI, like those that can be found in some BPPSPAM data. Also, BPPSPAM does not include process data, and IUWASH explained that, for the above reasons, it decided not to make use of BPPSPAM.

There is likely to be reform of BPPSPAM in the near future as the law mandating their function was cancelled in 2015. A proposed new law will mandate a new agency, possibly a reincarnation of BPPSPAM, to conduct a similar function. World Bank reported the new law will mandate use of a new system called NOWAS.

The IUWASH Creditworthiness Ladder (CWL) is a third, emerging index that has been applied by IUWASH in almost all its supported PDAMs. While the CWL has been developed to assess the credit risk of individual PDAMs, it has emerged as a simplified version of the other indices measuring performance. The CWL was developed using best practices from the credit rating industry. The CWL assesses the financial and business risk faced by PDAMs with 28 indicators across 8 categories. Unlike the other indices, once the quantitative assessment is completed, a committee then reviews the results, and a final score is assigned from 0 to 5 corresponding to a rating ranging from "D-" (or, D minus) to a high of "A+" (or, A plus).

Table 5.2: PDAM Performance Indexes

Index name	No. of indicators	No. of categories	Type or indicators that are included in the index
IUWASH	68	6	67 process indicators, 1 absolute performance indicator
BPPSPAM	18	4	absolute performance
CWL	28	8	absolute performance (financial only)

Based on the descriptions alone, conceptually it could be said that the IUWASH index is complex and focuses on measuring trends in process performance, while BPPSPAM and CWL indices have significantly fewer indicators and focuses on measuring absolute levels of performance. All three indices, while they are based on different indicators and measure different types of performance, can be assumed to be at least general barometers for PDAM performance. The question is, whether or not they offer precision or accuracy in measuring performance?

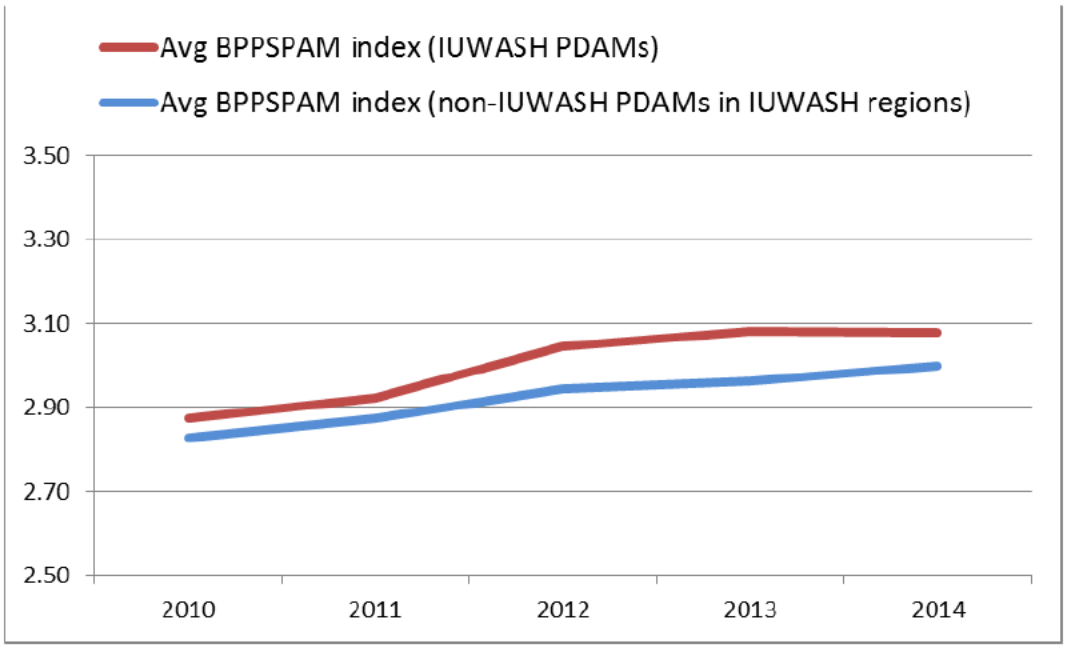


Figure 5.1: BPPSPAM Index compared between IUWASH supported and non-IUWASH supported PDAMs in the same regions.

Figure 5.1 compares the average of aggregate BPPSPAM index scores for IUWASH supported PDAMs and non-IUWASH supported PDAMs over a period of four years for the seven regions of IUWASH programs: Banten, East Java, West Java, Central Java, South Sulawesi, North Sumatra and Eastern Indonesia. As shown in figure 5.1, there have been small gains in the average performance of PDAMs in these seven regions over the last 4 years. However, the difference between the gains at IUWASH PDAMs and the others from the same region is essentially negligible (1% difference).

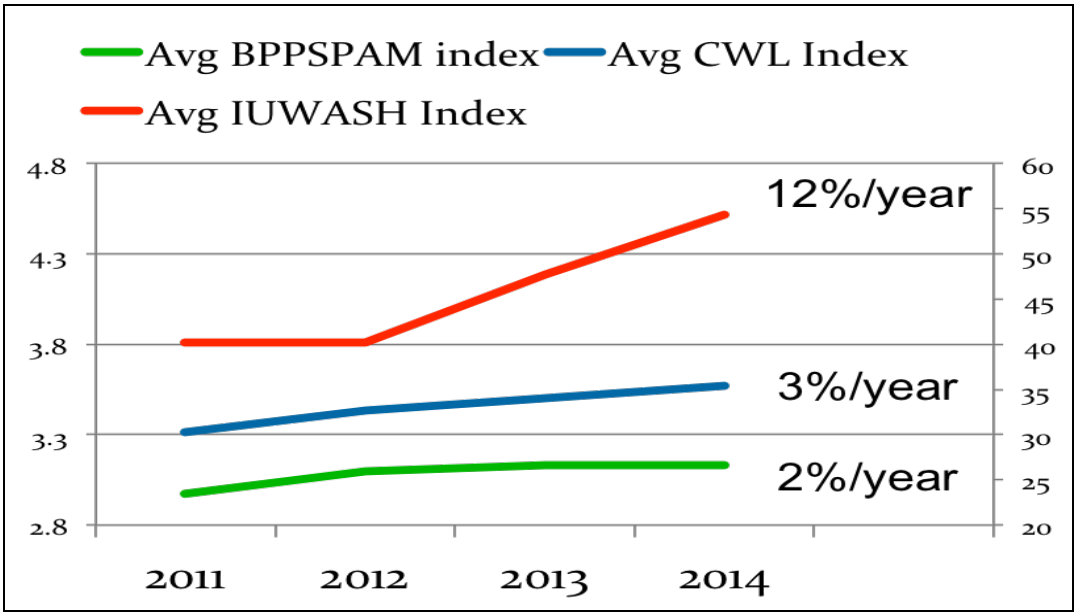


Figure 5.2: BPPSPAM vs IUWASH vs CWL PDAM index scores for IUWASH supported PDAMS[18].

Figure 5.2 compares the aggregate average IUWASH, BPPSPAM, and CWL index scores over the last four years in the seven IUWASH regions. Due to the differing scales it would be inappropriate to compare absolute scores, instead the purpose of figure 5.2 is to compare relative trends in the indices over time. The relative scales in the figure on each axis have been aligned where one point on the BPPSPAM and CWL indices are equal to 20 on the IUWASH index. As shown in figure 5.2, the performance gains vary, particularly between IUWASH index and the others. The BPPSPAM and CWL indices have an average growth per year of roughly 2-3% while the IUWASH index has dramatically improved at a rate of 12% per year.

The difference in the slope of the lines can likely be explained by the selection of indicators used in each index. While the BPPSPAM and CWL indices only use absolute outcome indicators the IUWASH index uses a combination of absolute outcome, relative outcome, and output indicators. The IUWASH (process) performance index is increasing far faster than the ("absolute") performance index of BPPSPAM and CWL. It is therefore important that further investigation is done to better understand the various performance indices and what they measure. Subsequently, with the impending launch of IUWASH Plus it is important to design an improved IUWASH Plus performance index that will be finalized during project startup as part of the M&E Plan.

5.2.4 Conclusions

Based on review and analysis of IUWASH progress reports, technical reports, interviews with key stakeholders and beneficiaries and field visits to 11 PDAMs, the following has been concluded:

a. During the past five years, IUWASH has implemented a very significant TA program and has created very solid relations with the PDAMS it has worked with. A wide range of TA services has been provided, covering technical and operational aspects, customer services, water resources, financial management, pro-poor activities, institutional aspects and PDAM development.

[18] *IUWASH Index is matched to BPPSPAM and CWL index scale by factor of 5:1*

b. IUWASH TA has had a positive effect on PDAM performance, and progress has been achieved in, for example, improving operational performance (e.g. energy efficiency, increasing coverage, improving operational procedures), financial performance of PDAMs (tariff adjustments, debt restructuring, improved creditworthiness), and in stimulating action on climate change and vulnerable raw water sources. IUWASH has had a catalyst role in facilitating and encouraging PDAM development.
c. IUWASH has contributed to leveraging considerable resources for capital investments in PDAMs, and by creating awareness for WASH at the LG level contributing to the doubling of LG budgets for water and sanitation during the past 5 years.
d. IUWASH has contributed to the development of the Indonesian Water Supply Sector by informing policy at national government level (e.g. debt restructuring, creditworthiness) and local government level (e.g. CCVA, good governance) and by improving program development (energy efficiency, capital investments, collaboration with development partners).
e. The IUWASH Performance Index (PI) is the instrument agreed upon between USAID and IUWASH to measure PDAM performance and has shown consistent and significant improvements in the course of the project.
f. The IUWASH Performance Index measures trends in PDAM process performance but does not or only partly measure in absolute terms the efficiency of PDAM operations and the level of service delivery to PDAM customers.
g. PDAM performance in Indonesia is measured with multiple indices using varied methods. The IUWASH performance index is measuring very significant improvements in performance that are not apparent in the absolute performance gains in other indices. Further investigation of measuring PDAM performance is needed prior to or during start-up of IUWASH Plus.
- In some PDAMs visited, the long term objectives and strategy to be jointly achieved by the PDAMs with support of IUWASH TA were not clearly defined and/or described. Therefore, it was difficult to determine progress and whether or not the allocated TA resources are sufficient to achieve tangible and sustainable improvements or to formulate an exit strategy.

h. In some PDAMs visited, it appears that the enabling conditions for tangible performance improvement may be lacking or only partly in place.
i. The IUWASH model of (automatic) measuring of High Level Results for water supply (add the number of connections when the increase in the PI > 20%) in combination with pre-defined intermediate project results (e.g. 20 PDAMs assisted with old debts, 20 PDAMs with improved creditworthiness) may have caused too much focus on achieving the intermediate targets.

5.2.5 Recommendations

With regard to water utility performance improvement component of IUWASH, recommendations are as follows:

a. Improve the effectiveness of IUWASH TA to individual PDAMs by jointly formulating a multi-year Strategic Plan focused on resolving key constraints that keep a PDAM from increasing its service coverage, with measurable objectives and (intermediate) targets and defining the resources needed from various stakeholders.
b. Strategic Plans should be presented to the PDAM Supervisory Boards and Local Governments to generate commitment, and be used to leverage resources from local and central government budgets.
c. Project design for IUWASH Plus would benefit if the pre-defined intermediate results in the current program SOW are aligned with the intermediate results of the Strategic Plans agreed upon with the PDAMs during the first year of the program.
d. The TA resources to be committed by IUWASH to individual PDAMs should be sufficient to support PDAMs in achieving the desired outcomes as defined in the Strategic Plans (refer I

above). This may have the effect that the number of PDAMs under IUWASH may be somewhat reduced.

e. Carry out a review of existing PDAM performance indices such as the IUWASH PI, the CWL, and BPPSPAM, and recommend a framework for institutional performance monitoring for IUWASH Plus.

5.3 SANITATION INSTITUTIONAL DEVELOPMENT

5.3.1 Introduction

The IUWASH Sanitation component aims at realizing access to improved sanitation for 250.000 people (equivalent to 50,000 households). To achieve these results, IUWASH is working with 54 Local Governments (LG) with the aim of improving their performance through a combination of i) capacity building (CI), ii) strengthening of the enabling environment (EE) and iii) mobilizing demand (MD) for sanitation. For each of these areas intermediate results have been formulated.

The analysis in this section will focus on the regulatory conditions and institutional framework for sanitation and complements the findings and conclusions of Chapter 4 on IUWASH BCC approach and IUWASH activities in Microfinance in the next chapter of this report.

IUWASH interventions for the Sanitation Sector are grouped into five programs, as follows:

- SAN 1: Support for individual sanitation systems, including capacity building and demand triggering, construction support, development of micro finance, SME and CSR and support for improved hygiene practice.
- SAN 2: Support to Communal Sanitation Systems, including pre construction support, construction, post construction support and improved hygiene practice
- SAN 3: Support to Off-site sanitation (sewerage), including pre construction support, technical support (FS, DED), post construction support
- SAN 4: Improving Urban Septage Management, including introduction of regular desludging (Pilots) and design of IPLT
- Institutional Support: support to the Working Group Sanitation, institutional development and capacity building support

In addition there are some cross cutting activities that are focused on improved LG policies, increased LG budgets, regulatory development, improved engagement of citizens, gender mainstreaming and mobilizing of CSR funding.

As explained in chapter 4, the IUWASH TA program for the sanitation sector is based on the Urban Waste Water Framework. The institutional framework promoted by IUWASH in its approach to LG is summarized in three key messages:

1. Local government holds the sole responsibility for the provision of city wide wastewater management services
2. LG mandates a single "technical management unit" to take the lead in city-wide wastewater management
3. Wastewater management is to become a "cost recovering city-wide public service obligation

The concept of a technical management unit within each LG that is responsible for wastewater management (be it an UPTD-PAL, PD-PAL or PDAM) that is promoted by IUWASH, vests these units with the following main tasks:

- Fostering the improvement of on-site household sanitation;
- Providing oversight and technical support to community managed communal systems;
- Managing off-site sewerage; and
- Implement integrated septage management services.

In operationalizing these technical management units, IUWASH focuses on: i) the promulgation of supporting regulations; ii) the establishment of regulatory functions; iii) the operationalization of a dedicated management unit; iv) the development of a comprehensive 5-years plan; and v) sector related budgeting, including tariffs for users and subsidies.

5.3.2 Findings

In all districts visited by the evaluation team, IUWASH has established excellent relations with local governments and community groups it worked with. IUWASH support is greatly appreciated, and the project functioned as a catalyst in mobilizing LG agencies involved in waste water management and creating momentum for further sanitation development.

In the course of the IUWASH project, and especially since contract modification No. 8, which was signed in September 2013, there is increased emphasis and priority on sanitation-related activities within IUWASH. In December 2013, an expatriate sanitation adviser was assigned, and a new BCC coordinator was appointed in early 2014. Also, senior-level Indonesian advisers were appointed to the sanitation sector during that period. A summary of the achievements of the IUWASH sanitation component is provided in the table below.

Table 5.3 Sanitation Sector Achievements

NO	ACTIVITIES	OUTPUT
SAN 1 – Systems for individual HHs		
1	Capacity Building & Demand Triggering	• Development of Communication Materials • Training of Trainers and sanitation promotors • The USP guide prepared and disseminated and is being used for training of trainers to promote sanitation in urban setting.,
2	Constructing HH Sanitation Facilities	• 23,550 households with access to improved HH sanitation facilities • Direct result collaboration with PNPM Mandiri in central Java resulting in co-financing of Rp 23 billion for about 17,500 HH with improved sanitation
3	Develop Micro finance / SME / CSR	• 4.556 low income household accessing micro finance supported improved sanitation individual (Dec 2015) • Microfinance institutes active in 23 local governments • Develop the SME Training Guide and training of local SMEs
4	Improve Hygiene Practice	• Support for Global Handwashing with Soap Day as well as active support for Community-Based Total Sanitation (STBM).
SAN 2 – Communal Systems		
5	Pre-Construction Support	• Support for > 300 communal systems •
6	IUWASH Construction support for Communal Systems	• 23,270 potential HHs connected to communal systems • Partnering with ADB/USRI and others government programs (SANIMAS/SLBM) • Training and capacity building for KPP/KSM for IPAL communal • Performance assessment of USRI systems in 3 regions and 13 LGs
7	Post Construction Support	• Preparation of 19 SOPs related to UPTD development, based on IUWASH experience on the field

NO	ACTIVITIES	OUTPUT
		• Capacity building and training for CBOs • A set of training materials will be used by the Ministry's Technical Training Facility (Balai Pelatihan) in Bekasi for providing training to UPTDs beyond the current IUWASH program; • Preparation of SOPs to be used for operator's training
8	Improve Hygiene Practice	• Capacity building for CBO • Healthier and clean environment on community settlement • OD free on community area visited
SAN 3 - Sewerage		
9	Pre-Construction Support	• Support to central government and LG budget allocation, leveraging Rp 58.1 billion (FY 2013/2015) and Rp 68,8 billion (FY 2015/2016) • Capacity building of wastewater division of PDAMs in Medan, Solo and Bogor and establishing a wastewater division in PDAM Malang • Strengthen of existing UPTD management and establishment of new UPTDs
10	Technical Support (FS & DED)	• Support DED for sewerage and house connections • Support DED for IPLT, new & rehabilitated systems • Constructions phase support for city sewerage system in Medan and Bogor • Constructions phase support for small scale sewerage system in Binjai, Tebing Tinggi, Tanjung Balai, Bandung, Bekasi, Kab. Sukoharjo, Kab. Gresik and Ambon. • DED for IPLTs rehabilitation (6 cities) • DED for new IPLTs (3 cities)
11	Post Construction Support	• Capacity Building for UPTD for operation and maintenance • Advocacy & socialization of CBO on O&M of house hold connections • Support on preparation of APBN budget for next year • Support on house connection program development
SAN 4 – Seepage Management		
12	Improve Urban Septage Management (Pilots)	• Establishment of city wide sludge management systems in advanced stage of progress in 5 LGs (UPTD, PD PAL and PDAM) • Septage management through regular desludging being implemented on pilot basis in 3 cities • study tour to Philippines to learn about cost recovery regular desluding and financing of Septage Management • Supporting USAID Washington with development of Regular Desludging toolkit • Annual MPWH national seminars and workshops on septage mangement • Introduced Android Application for conducting Septic tank sensus for Septage Management operators • Guidelines on Health and Safety designs for desludging • Census in 5 cities for total of 60,000 households on availability and condition of household septic tanks
13	Sewage sludge treatment plant (IPLT) Design	• Standard DED for new IPLT • Renovation of IPLTs for cities: Binjai, Tebing Tinggi, Sibolga, Asahan and Tanjungbalai, Surakarta • DED for new IPLT for Malang, agreed funding from MPWH/APBN in 2016

NO	ACTIVITIES	OUTPUT
		• Upgrading of 2 IPLTs in Jakarta/DKI • Technical guidelines on IPLT designs
SAN 5 – Institutional Support		
14	Legal Forum (1) UPTD, (2) PDAM	• Capacity building of 14 existing UPTDs/PDAMs • Establishment of new UPTDs in 19 LGs • Establishment of new waste water services within PDAMs (4) • 8 LG's in the process of establishing a new UPTD • Regulations in support of UPTD establishment • Established UPTD structure, functions & procedures • Regular desludging fee is include in water supply tariff • Collaborating with Bappenas, PPLP and AKOPSI to develop a simple sanitation index ("SanDex")
15	Capacity Building Support (UPTD/PDAM)	• Providing support to 41 LG partners • Institutional support for waste water operators (15 UPTDs and 4 PDAMs) • Established UPTD work plan and operational budget • SOPs developed and staff training conducted

Institutional Development at the LG level

During the past years, IUWASH collaboration with LGs has focused on creating the enabling conditions for wastewater management and service delivery at the city level. It assisted in establishing regulations, updating and enhancing existing sanitation strategies, establishing and operationalizing a single management unit for sanitation, including training of staff and advocacy for providing the necessary budgets and in undertaking pilot activities. A summary of IUWASH activities in Jayapura provides an example of how this approach is being implemented.

Wastewater Management in the City of Jayapura

In 2013, IUWASH assisted the Sanitation Working Group of the LG in the City of Jayapura in developing a Sanitation White Book and City Sanitation Strategy (SSK). One of the recommendations was the setting up of a UPTD, to be responsible for solid waste and wastewater management and related services. Based on this recommendation, UPTD Kota Jayapura was established under Dinas Kebersihan and Pertamanan /Dept. for Cleaning and Parks (City Regulation no 10/2013).

Staffing for the UPTD was approved in 2014 consisting of 10 Administrative staff, 30 staff for solid waste management and landfill operations, and 10 staff for waste water management, desludging and sludge treatment operations. A laboratory for water quality control is also part of the structure, but has not yet been staffed or equipped. The annual budget for the UPTD in 2016 is Rp 1.7 billion which, according to the UPTD manager, is insufficient.

The UPTD has a new sludge treatment plant. Sludge treatment consists of a separation process by rough filtration to separate solids from water. There are 6 compartments and separation ponds, each with a volume of 15 m3, able to handle 5 sludge-trucks per day.

After the UPTD was established, IUWASH assisted in the preparation of SOPs, operations and maintenance training, setting up regular desludging and in the use of GIS. IUWASH has provided UPTD with materials for socialization, but UPTD staff still needs to be trained.

Based on the SSK, IUWASH also supported two pilot projects: one MCK (public toilet) in Polimac serving about 20 households, which was funded by Dinas PU Kota Jayapura, and two communal wastewater systems, both funded by Satker. IUWASH was instrumental in obtaining funding for the projects.

The communal system in Hamadi was visited by the evaluation mission and consists of a communal septic tank, sewerage trunk mains, and house connections. The plan was to serve 50 – 100 households and construction was completed in 2014. Constructions and socialization was supported by IUWASH using STBM steps, including triggering, establishment of a CBO, agreement on contributions of Rp 5,000 per month/household. To date (2 years after construction was completed) only 2 buildings are connected to the system: the Keluhuran office and the house of the Head of the Keluhuran. The reasons for this are unclear and no agency has so far taken responsibility to resolve the problems.

Currently, the UPTD only has one desludging truck, but it will get a second one funded through Satker and a third truck funded by the Jayapura CSR Forum. In the city of Jayapura there are 4 private operators involved in desludging, who charge about Rp 900,000 for a desludging. There are no local government regulations dealing with sludge or desludging services. The UPTD is currently serving government offices as a pilot with the payment of RP 350,000 / truck. Preparations of a government regulation on desludging still is in process.

During the past 3-4 years, the City of Jayapura with support of IUWASH has been able to create the basic conditions to start wastewater management services. Momentum for sanitation is growing, and annual budgets for water and sanitation infrastructure in Jayapura have steadily increased. Results in terms of on-site and off-site physical infrastructure are still very limited and the institutional framework remains vulnerable. However, there appears to be a strong level of commitment at the city management level, and with continued technical assistance, it may be expected that tangible increases in access to improved sanitation can be achieved over the coming years.

According to the latest IUWASH Annual Progress Report, the project is actively working with 41 LGs on wastewater management, all of which have shown commitment for sanitation and are supportive of the institutional approach for wastewater management as proposed by IUWASH. Out of these 41 LGs, 14 already had established a UPTD or PDAM responsible for wastewater management, 19 LGs have established UPTDs as a direct result of IUWASH interventions and 8 LGs are still in the process of establishing a UPTD[19].

LG regulations supporting the establishment of UPTDs were prepared and approved for 30 districts, and 29 districts established the structure, functions and procedures for UPTDs. In 2015, IUWASH selected 19 LGs to advance in the operationalization of wastewater service delivery and of these, 17 prepared a work plan and operational budget for UPTDs, and 15 hired and appointed initial staff. IUWASH assisted13 LGs in developing SOPs and in conducted training for UPTD staff. A set of materials for training of UPTD operators and SOPs for UPTD operations was also developed by IUWASH.

One issue which was already mentioned in the chapter on BCC is that, for the promotion of sanitation, LGs and IUWASH often work with staff (specifically, sanitarians) from the district health departments (Dinas Kesehatan, Puskesmas, etc). Such staff are generally more familiar in working with the STBM program which, in the case of improved sanitation facilities, was designed for rural areas, focuses on health and hygiene related aspects of sanitation, and promotes more basic technical options. Requirements for marketing of sanitation in an urban setting are different, require promotional methods that appeal to different motivators for sanitation, involve different technical options, and also must take into consideration various financing schemes. This may have caused promotional activities in sanitation programs to be less effective.

Stakeholders at various levels recognize the need for different approaches for marketing and promotion in rural and urban areas. In some LGs, UPTDs intend to work with their own urban sanitation promotors to cover the broader social marketing aspects, allowing the sanitarians of

[19] IUWASH Annual Progress Report 5, October 2014 – September 2015

health departments agencies to focus on health aspects. In other LGs it may be necessary to train local health sanitarians in the broader requirements of sanitation promotion in an urban setting.
Regarding the institutional framework for sanitation at the LG level, the evaluation mission had discussions with a number of LG's, including those of Makassar, Gresik, Probolinggo, and Klaten. In all LGs, IUWASH largely appears to follow the approach as outlined above. Local preferences and characteristics determine the emphasis of the TA and the eventual set up of the institutional framework, and IUWASH appears to be flexible to adapt to the local situation. LGs appreciate the support they receive because IUWASH is able to work with all stakeholders involved at various levels. The approach is considered practical, flexible and has generated and supported increased momentum for sanitation development. An important added value of IUWASH, besides the additional resources it brings, appears to be that it is able to act as a catalyst for sanitation, bringing different stakeholders together and guiding them in formulating and achieving common objectives.

Developing regular desludging services
An interesting development is the establishment of regular desludging services in five cities, including DKI Jakarta and the cities of Bogor, Surakarta Makassar and Malang, with support of and partly initiated by IUWASH. The last three cities were visited by the evaluation mission. The findings are as follows:

- PDAM Malang is planning to develop regular desludging services for individual households and gradually develop off-site sanitation systems. This year it wants to start with pilot projects and large scale implementation is scheduled for 2017. The drivers for this project are groundwater pollution and concerns from the city government. Also, advocacy by IUWASH played an important role. IUWASH assisted in developing the regulation for wastewater management by the PDAM, which is waiting for approval from local parliament. According to the regulation, every HH will be obliged to have a proper septic tank, and PDAM will manage desludging services. The PDAM (which has 80% coverage for water supply) plans to charge each PDAM customer an average Rp 8.500 per month for sanitation. Meetings with private companies have been conducted to set a desludging fee and review monitoring and technical arrangements. The PDAM will pay the private companies involved in desludging services, after septage has been properly collected and disposed of at the sludge treatment plant. Thirty (30) desludging trucks will be needed to serve 150,000 customers. IUWASH also provided assistance in developing the business plan for sludge management.
- Based on a regulation, the Wastewater Management Unit (UPTD) of the City of Makassar was established in 2011. UPTD Makassar plans to set up regular desludging services for the City of Makassar, which was officially launched in August 2015 with a pilot desludging program for 125 households. Prior to this a survey among a large group of potential customers was implemented. IUWASH supported the drafting of a local regulation (Rancangan Perda Pengelolaan Air Limbah Kota Makassar) and the revision of the existing "Perda Retribusi Jasa Umum" that includes the service fee for regular desludging. The regulations still need formal approval by local government. The UPTD has 8 desludging trucks that presently serve civil servants and public offices, The desludging fee is Rp 250.000, on call basis. Customers will be charged Rp 12.500 per month, for one desludging every 2 years. There currently are three (3) private desludging companies, with about six (6) desludging trucks, charging desludging fees of between Rp 400,000 and 500,000.
- In addition to its water supply system (80% water supply coverage), PDAM Surakarta (Solo) is also running a small sewerage system, covering 15% of customers. HHs pay Rp 7,500 per month for this. There is an APBN financed project to expand that system to increase sewerage coverage to 30%. The remaining 70% to be covered by on-site sanitation. In close cooperation between the PDAM and IUWASH, a plan to start regular de-sludging was developed. The idea is that the PDAM will organize desludging of septic tanks for individual HHs by private contractors. HHs will pay Rp 8,500 per month to the PDAM, the rate of which is now being reviewed by the DPRD for approval. The costs of one desludging will be

> Rp 175,000, which will be paid by the PDAM to the contractor. There is also a local regulation as a basis for this scheme. HHs without septic tanks have five (5) years to conform to the regulation. The LG will help in case of poor HHs. An ingenious monitoring systems has been developed to monitor desludging operations, including planning for contractors to collect waste on a daily basis and septage truck movements to be tracked on a GPS system.

From the presentations, it appeared there is much potential and enthusiasm. In all cities visited, there are committed and capable operators with well-prepared business plans to start city-wide desludging operations. Important will be to see whether LGs will support the plans and pass the required regulations that will underpin the legal, technical and financial viability of the schemes. In the case of the two PDAMS, these have the advantage of having institutional capacity, technical know-how, a client base, and a billing system in place. In all cases, the developments are still at a very early stage, but promising.

On-site sanitation vs communal wastewater systems

For urban areas, GOI aims at achieving 100% access to improved sanitation in 2019 by providing off-site sewerage and treatment systems for 10% of the population (5% community-based and 5% city scale systems) and on-site treatment facilities for 90% of the population. National government agencies such as BAPPENAS and MPWH strongly support the implementation of community based systems, because it is relatively easy to fund and implement these schemes with funding from the national budget and also because in this way larger numbers of customers can be realized. However, there is a growing realization that on-site sanitation is not only a responsibility of individual households but that there also is a role for government to create the enabling conditions that stimulate and facilitate access to improved sanitation and by providing waste water related services.

Communal wastewater systems

The evaluation team visited various communal wastewater systems which showed mixed results. The communal system in Jayapura has so far failed completely (see box above) and is a typical example of lack of coordination between different levels of government and the community, with no one eventually taking responsibility to resolve the resulting problems. On the other hand the team also visited successful communal systems in e.g. Probolinggo (An Nur) and Klaten and a Community Sanitation Centre (toilet, laundry, washing facilities) in Surakarta. In all these schemes there was a well-organized homogeneous community with strong leadership, extensive promotion and consultation, adequate technical design and flexible implementation, and regular contributions from beneficiaries to cover for O&M costs. Also, it has to be said, these schemes have only been operational for a relatively short period of time and their long term sustainability cannot yet be evaluated.

Research into the viability of decentralized community managed wastewater treatment systems was carried out by WSP in 2013 for about 400 communal systems and facilities in Indonesia, constructed between 2003 and 2012[20]. The conclusion of this research was that

> *"More than 80% of the installations function well day to day, comply with environmental discharge regulations, and enable far-reaching changes in environmental health and personal behaviours in urban areas otherwise likely to remain un-serviced for some time".*

[20] WSP June 2013: Review of Community Managed Decentralized Wastewater Treatment Systems in Indonesia

The WSP report concludes that

> *"community-managed decentralized water treatment systems can be effective in serving poor communities where the appropriate type of system is built well in the right location, the number of users is optimized and sustained, and there is shared responsibility with government for operation and maintenance. Community- managed wastewater systems should be developed as part of a broader city sanitation plan and only where a community has the motivation to make them work".*

Based on the above it appears that for IUWASH Plus there is scope for continued support in the development of community based wastewater management systems, drawing lessons from experiences in the development of such systems during IUWASH-1 and improving the sustainability of such systems by providing for support in operation and maintenance by newly established UPTDs.

On-site sanitation for individual households

To achieve Indonesia's objectives, the large majority of improved access to sanitation for households in urban areas will have to be realized by improved on-site sanitation. Until the end of 2015, IUWASH had contributed to realizing access to improved sanitation for an estimated 23,270 individual households[21]. A substantial part of this increase has been realized in Central Java, in working with the governments' National Program for Community Self-Empowerment (PNPM Mandiri). The evaluation mission visited kabupaten Klaten, which is one of the districts that applies PNPM Mandiri for sanitation.

Kabupaten Klaten PNPM Mandiri Program

In Kabupaten Klaten IUWASH is supporting the LG-PNPM team in using its budget to improve sanitation for individual households. PNPM is a national program, which provides communities with budget to improve local infrastructure. Normally PNPM is used for local roads, bridges, drainage etc., but IUWASH consulted with provincial authorities in Central Java and it was agreed that PNMP could also be used for HH sanitation. Over the past 3 years, about 8,000 HHs in Klaten have made use of the PNPM budget, in most cases to build septic tanks and other sanitation facilities. IUWASH TA included development of a common approach, carrying out surveys to identify low and medium income areas, training of sanitarians, develop regulations and provide coordination support. The program involves subsidies to individual households for sanitation. The subsidy per HH differs between one village and the other. On average subsidies per household amount to Rp750,000 to Rp1.000.000 and HHs contribute between Rp500.000 and Rp1.000.000, depending on their ability. Local sanitarians and PU staff are responsible for promotion. Facilities are constructed by local contractors and community members. Since 2008, PNPM budget has allocated Rp 18.2 billion to sanitation; LG contributed Rp 0.5 billion and the community an estimated Rp 8 billion. Desludging is done by local contractors and the sludge is either used as fertilizer or disposed of in the river. There is a regulation for this, but it is not enforced. According to LG, IUWASH has greatly contributed to creating the momentum for sanitation and has been "the oil in the machinery".

The mission would like to make a few remarks regarding the otherwise positive report of Kabupaten Klaten:

- The way individual HHs are approached differs from one village to the other and, from the field visit in Klaten, it was not clear whether or not subsidies actually reached low-income families.
- If there is no adequate arrangement for desludging of septic tanks, and the sludge is (partly) disposed of in rivers, the environmental and part of the public health benefits of improved sanitation will not be achieved.

[21] IUWASH Annual Progress Report 5, page 68

- PNPM is an existing financing mechanism of GOI which apparently, under certain conditions, can be applied to sanitation. It would be useful to carry out a study of the various financing mechanisms that are available for on-site sanitation and how they can best be used and approached[22].

5.3.3 Conclusions

a. IUWASH has been able to establish excellent relations with the LGs it is working with. It is acting as a catalyst, gradually creating and making use of existing momentum for sanitation, and its hands-on and flexible approach are appreciated by stakeholders.
b. IUWASH approach in creating the enabling environment for waste water management at the LG level appears to be sound, and steady progress is being made in developing the plans, regulatory framework and institutions for wastewater management in the cities and districts it is working in.
c. In most cases, the institutional framework for sanitation at the LG level is still fragile, staff need to develop skills, operationalization of services and activities has only just started, and budgets are limited. Continued support and encouragement will be needed.
d. IUWASH is developing considerable experience in working with different institutional frameworks, such as with existing LG institutions, UPTDs, PDAMs, etc. It will be useful to monitor and evaluate the effectiveness of the various models and learn lessons for the future.
e. Pilot programs for developing city-wide sludge management systems with UPTD's and PDAMs in various IUWASH cities appear to have considerable potential and need further support and monitoring.
f. The successful development of community managed wastewater systems requires extensive guidance and careful management by LG authorities in close consultation with strong communities. UPTDs can play an important role in supporting the sustainable management and operation of such systems.
g. For on-site sanitation (and partly for off-site sanitation), clear strategies for approaching different target groups are not yet sufficiently developed, including different financial packages (loans, subsidies, micro credit, special offers, etc.), and guidance on when to use them, in combination with different product packages and promotional methods.
h. During the evaluation, the team has not come across a good overview of sources of funding, especially for on-site sanitation for individual households. If not yet available, it would be useful to conduct an inventory of different financing schemes could be prepared.

5.3.4 Recommendations

a. It is recommended that IUWASH Plus continue the hands-on and flexible approach to institution and capacity building developed under IUWASH and that it monitor and, in due course, evaluates the strengths and weaknesses of the various institutional models that are currently being applied with support of IUWASH.
b. Because of the fragile nature of newly established LG institutional frameworks for sanitation, "continuity of support" should be an important criterion in selecting districts for future collaboration under IUWASH Plus.
c. Also for sanitation, and especially for districts IUWASH already worked with, it would be useful if IUWASH Plus would, in an early stage of the collaboration with each LG, agree on a type of strategic plan, defining the objectives and intermediate targets to be achieved, the outputs to be produced and the required resources. In a number of cities, five-year plans

[22] In 2014 IUWASH produced a report assessing existing and potential sources of capital for water utilities and it may be useful to prepare a similar guide for financing of on-and offsite sanitation

already exists (white books), but it is not always clear to what extent all stakeholders are committed to these plans and what resources are allocated to fulfill them.

d. IUWASH has initiated and supported the development and start-up of city-wide desludging services, and it is recommended that support to these activities is continued, also with the purpose of learning lessons and upscaling of successful approaches.
e. It is recommended to investigate different financing mechanisms that are available from various sources for on-site and off-site sanitation and to make LGs aware of the various options.
f. For on-site sanitation (and partly for off-site sanitation), clear strategies for approaching different target groups need to be further developed and/or refined, including financial packages (loans, subsidies, microcredit, special offers, etc.) and when to use them, in combination with different product packages and promotion methods.

5.4 MICROFINANCE

5.4.1 Introduction

The IUWASH microfinance program aims at providing access to finance for low income groups, enabling households to apply and pay for new water supply connections and/or invest in improved sanitation facilities. HH with low incomes often cannot commit to the relatively large amounts needed for improved WSS facilities, but are able to pay in small installments spread over longer periods of time. Microfinance is part of a mix of products and services, provided by a network of different organizations, providing HHs with information, promotion and financing schemes in addition to the actual delivery of goods and services.

In developing microfinance schemes for sanitation, IUWASH is collaborating with different banks, cooperatives, credit unions and SME's. Some local governments are supporting the development of microfinance schemes through the provision of 'seed-money' to local banking institutes. For financing of new water supply connections, IUWASH is collaborating with PDAMs, either by mobilizing internal funds of PDAMs or by supporting PDAMs' collaboration with financial institutions. An overview of the regions, districts and achievements up to December 2015 is provided in the table below.

Table 5.4 Number of households with access to new water supply connections or sanitation facilities with financing support.

No	Provinces	Districts	Provider	Services	
				#Water	#Sanitation
1	West Java/ DKI Jakarta/Banten	Tangerang	MFIs, SMEs	0	858
2		Serang	PDAM, SMEs	258	39
3		Bekasi	PDAM, SMEs	2147	6
4		Lebak	SMEs	0	217
5		Bandung	Rural Bank, SMEs	0	238
6	Central Java	Kudus	Bank	635	0
7		Kendal	PDAM	28	0
8		Rembang	PDAM	679	0
9		Klaten	PDAM	1889	0
10		Semarang	PDAM	414	14
11		Sukoharjo	PDAM	4409	0
12	East java	Gresik	SMEs	0	8
13		Lamongan	SMEs	0	82
14		Kota Probolinggo	Banks, SMEs	0	447
15		Kota Surabaya	Banks, SMEs	201	155
16		Mojokerto	Banks, SMEs	2946	405
17		Kota Mojokerto	SMEs	0	39
18		Sidoarjo	SMEs	0	544
19		Jombang	Banks, SMEs	0	978
20		Malang	SMEs	0	51
21		Kota Batu	SMEs	0	12
22		Probolinggo	Banks, SMEs	0	447
23	South Sulawesi	Jeneponto	PDAM	303	87
24		Sidrap	Cooperative	182	34
25		Takalar	PDAM	1388	21
26		Maros	Cooperative	45	48
27		Pinrang	Cooperative	0	59
28	North Sumatra	Langkat	Cooperative	534	0
29		Labuhan Batu	PDAM	419	0

In the first years of the project, IUWASH efforts in developing the microfinance product had limited success, especially for increasing access to improved sanitation. Some of the reasons for this are explained in the MTR report of early 2014. In 2014 adjustments were made to the Microfinance Action Plan and after that IUWASH MF programs have gained momentum with more than 4,700 household sanitation systems and some 4,500 new water supply connections financed through microfinance support and some 12,000 new connections financed from internal credit schemes of PDAMs.

On average, the costs of improved sanitation facilities per household amount to about Rp 2 million and about Rp 1.5 million for a new water connection. In the course of the program, IUWASH therefore has been instrumental in generating financing of sanitation facilities for an estimated amount of Rp 9.6 billion and Rp 24.5 billion for new water connections.

5.4.2 Findings

The IUWASH microfinance (MF) program aims at facilitating access to finance for low income households and herewith increase access to improved water supply and sanitation facilities.

In discussions with Micro Finance Institutions (MFI's), PDAMs and SMEs it was reported that about 75% of low income households have difficulty in providing direct cash to pay for water supply connections and/or construction of sanitation facilities. Providing the possibility to pay in instalments encourages households to invest in WSS facilities, and this creates a business opportunity to WSS providers.

There are various types of financial services available to the public, including non-commercial, semi commercial and/or fully commercial schemes. The IUWASH MF program has so far worked with financing schemes provided by the financial sector and WSS providers (PDAMs and SMEs) and tries to build operational models at local level. IUWASH has worked with 4 banks and 17 cooperatives across 5 regions.

Scheme	Type of Institution/Program	Source of Fund
Financial Sector	• Commercial Bank • Local Bank • Cooperative	• Private Funds
WSS Provider	• PDAM • SME in Sanitation	• Government Funds • Public Utility • Private Funds • CSR Fund
Government Scheme	• PNPM Mandiri • Other grant activity	• Government Funds • Community contribution

In the districts visited during the evaluation, IUWASH implemented different types of schemes. Assistance of IUWASH to Banks and MFIs consists of sharing knowledge with MFI management about the WASH sector, providing support in piloting of loans/financing for WSS products, training of field officers, assistance in developing marketing materials, and facilitating discussion and cooperation with stakeholders such as the local health authorities and WSS Providers/SMEs. The assistance of IUWASH is appreciated by MFIs. Not only has it enabled MFIs to further develop and market their loan/financing products, but also because of the hands on approach of UWASH staff in the field.

In general, when introduced to the concept of financing for WASH, there is sufficient interest from financial institutions to provide services, as a combination of mission (*to support quality of life*

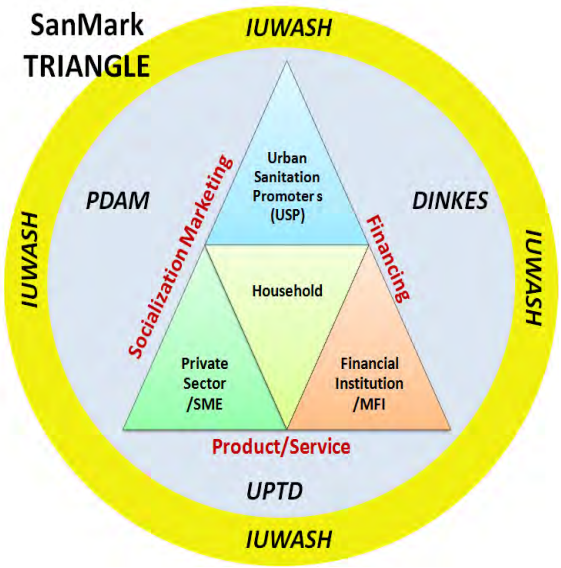
improvement for lower level income people in their district) and opportunity for business. In some cases, e.g. in Kabupaten Bandung and Jombang, local governments have shown their commitment by providing seed capital to LG owned banks for water and sanitation.

The IUWASH MF program for water connections with commercial bank BSM started in 2011. The MFIs and PDAMs visited during the evaluation, were mostly approached in late 2013 and pilots started in 2014. IUWASH implements microfinance activities with MFIs of different legal status, size, and capacity. The evaluation team has not been able to identify an engagement strategy in approaching of MFIs. Developing criteria to categorize MFIs would be useful, because the differences in legal status, size and capacity causes different risks and opportunities and, thus, requires different levels and types of support and expertise.

IUWASH reported that regional teams tailored their technical support to each partner. For instance, when developing PDAMs' internal credit schemes, the TA focuses more on promotion and marketing as well as PDAM cash flow analysis, and for programs with local cooperatives, capacity building of internal management is essential. Municipal finance specialists are assigned to each IUWASH regional office and also cover microfinance. The national microfinance coordinator provides backup to the regional teams, as required.

Opportunities and Challenges in WSS financing

In general, implementation of WSS schemes require: i) Promotion, ii) Financing and ii) Product Supply (various types) in a holistic approach (see figure). The urban sanitation promoter is the key promoter for sanitation and this role is mainly conducted by staff of the LG agencies, who, have a strong focus on health issues that somehow may not fit in an urban setting. Sanitation entrepreneurs (SMEs) play a critical role, as they are the supplier of the product for the community. The synergy and coherence between the three parties and the ability to provide high quality products determine the sustainability of the services to HHs. The approach may be less complex for water as the PDAM is also the supplier of the water connection.



Microfinance in Water supply

Although financing for water connections by commercial banks exists, the water supply sector itself is relatively new to the microfinance sector. To facilitate the development of new internal credit programs in PDAMs and to stimulate expansion of existing programs, IUWASH developed "Guidelines for PDAM-Funded Microcredit Programs".

Many PDAMs already have "in-house" financing products for potential new clients, which in most cases are free of interest. PDAMs were interested when IUWASH introduced microcredit schemes, and some PDAMs developed and strengthened their in-house microcredit with the support of IUWASH. Most PDAM visited expressed keen interest to significantly increase the number of new connections in 2016.

Although IUWASH supported PDAMs in improving their credit scheme operations, most PDAMs find that credit collection is becoming a challenge and late repayment a concern. Cash flow management is also becoming a constraint. When asked for their preference, most PDAMs prefer to

collaborate with MFIs in providing credit for new connections, for reasons of operational convenience and cash flow. Facilitated by IUWASH, lending and/or financing by microfinance institutions and commercial banks provides an opportunity for PDAMs to overcome the above constraints. Agreements between banks and PDAMs normally include the following arrangements:

- The loan size provided by MFIs normally ranges from Rp 0.6 million, as a promotional price for a new connection for low-income households, up to Rp1.5 million. Under this arrangement, no collateral is required from the household nor the PDAM.
- The tenor starts from 12 months with an interest rate of approximately 1.5% per month. The percentage of non-performing loans also seems to be manageable despite the risk.
- In the case of late payment by the customer, the PDAM will discontinue water supply to that connection until the necessary loan repayments are made. This arrangement helps to reduce risk of the bank.[23]
- MFIs and/or banks also have agreed to speed up their disbursement processes to maximum 5 days after field checks by the PDAM have taken place, to ensure punctuality of process.

The availability of loans by Banks and/or MFIs does not automatically create the demand for water connections. Since MFIs do not have knowledge of the potential clients and only have limited capacity for marketing, promotion still has to be actively conducted by PDAMs. In some PDAMs, IUWASH has provided short-term grants for promotional staff that later have been engaged directly by the PDAM.

Working with commercial banks with many branches such as BRI is an advantage. However, since the area covered by one branch is relatively limited, in some cases PDAMs had to sign separate agreements with different BRI branch offices to cover the whole of their supply area.

The microfinance experience has stimulated PDAMs to explore other partnerships. PDAM Sidoarjo for example is planning to expand the MF scheme with other banks or MFIs. A regional development bank, Bank Nusa Tenggara Timur, with a regional branch office in East Java, also approached PDAMs to implement loans for water connections.

Microfinance in Sanitation

Prior to becoming involved with IUWASH, some MFIs already offered loans for house renovation, but did not have a specific product related to sanitation. IUWASH promoted specific financing for sanitation. The banks and MFIs then conducted their internal analysis to ensure the financing product was suitable for their (potential) clients' needs.

MFIs have shown interest in developing a loan product for sanitation, provided it is able to generate satisfactory profit margins. MFIs consider sanitation financing as non-productive loans and therefore relatively high risk, particularly when serving low-level income households. So far MFI's reported low levels of "non-performing" loans, but as the tenor is in some cases more than 5 years it is too early to draw conclusions. Although sanitation financing may not become a major part of their portfolio, MFIs are still interested because they consider it as an expansion of their customer base.

Local banks apply a rather conservative approach, since banks are regulated and closely supervised by the financial service authorities. Standard banking appraisal therefore includes credit data checking through the Central Bank (BI). On average 20% of bank applications are rejected because they did not pass this check.

[23] During the evaluation no precise information could be obtained regarding actual repayment rates but generally MFI's and banks reported low levels of "non performing" loans.

The business risk for sanitation financing may be perceived differently by MFIs and/or banks. E.g. KPP UMKM/BMI is a cooperative in Tangerang with more than 100.000 members. In 2015 it successfully financed 1,569 sanitation units. The loans range from Rp 7 to Rp 15 million for sanitation and/or water services with a tenor of 5 to 10 years and interest of 1% flat per month which is relatively low. The purpose of offering this long tenor and low interest rate is to allow the borrower to pay in small instalments, up to about Rp 40,000 per week. To be able to offer this product, the cooperative requires a relatively cheap and a medium to long term source of funds. The risk of a mismatch of funding is currently one of the key challenges for expanding this loan product.

Demand creation for sanitation is primarily done by Urban Sanitation Promoters (USPs) of LG health agencies. Most MFIs and local banks neither have the capacity nor the budget for promotional activities and rely heavily on third parties (as mentioned by Bank Jombang, Bank Kertaraharja and KSU Denas). BMI in Tangerang received significant grants from Water.Org that enabled them to hire dedicated staff to support its operation and monitoring of the MF scheme. Some MFIs do not consider promotion to be part of their responsibility.

In the district of Bandung, an MOU between the LG Health Department and the Bank was developed for implementing the sanitation program, providing detailed roles and responsibilities for both. The model cooperation between LG, the Bank and the "association" of SMEs (KWS) promote and introduce the program to communities. LG and the KWS are informed about the loan product. KWS helps to coordinate and put pressure to the community for loan repayment (moral obligation). This coordination in the field is critical for the bank.

The dependency on qualified SMEs is also a big challenge due to their limited number. Their ability to deliver sanitation facilities in line with agreed quality standards and in a timely manner is critical. Lack of capacity may cause dissatisfaction of HHs and affect loan repayments to the bank. The quality control of products delivered by SMEs was supported by IUWASH during the program. Once IUWASH is finished, this will need to be independently conducted by MFIs. Since the availability of high quality SMEs is critical, some MFIs choose to work with SMEs based on a binding agreement in order to have control the quality of their services and scheduling of work.

IUWASH provided guidelines for standard sanitation construction. Although SMEs are using this in the specification of their products, discrepancies occur in pricing, depending on local conditions. As a consequence, there is also variance in the loan amount offered by MFIs. MFIs typically offer loans between Rp 1.5 million to Rp 3 million with a maximum tenor of 3 years. An exception was found in Tangerang, where a cooperative offered a 7 to 10 million WSS loan to their members who are only eligible to Rp 3 million business loans. This raises concern of over-financing. Therefore, caution must be exercised by SMEs and banks in designing the sanitation product pricing and range of services offered, particularly when serving low-income households.

Availability of funds seems to be a constraint of almost all financial institutions and service providers. The need for funding depends on the size and capacity of the financial institution and their plans. Some MFIs or banks may be eligible to get new loans. However, when utilization of loans is aimed at

an increasing portfolio for sanitation, financing sources may have concerns. IUWASH has tried to facilitate MFIs to obtain funds from Lembaga Pengelola Dana Bergulir (a government institution supporting cooperatives and SMEs), however this has not succeeded. There is no detailed information from IUWASH on the specific reasons and this evaluation did not have the opportunity to interview any other secondary level lending institution.

Aside from the availability of sufficient funds, the management and operational capabilities of MFIs are critical to ensure efficiency and sustainability. KSU Denas (a multipurpose Cooperative) for example, do have strong interest and commitment in conducting sanitation business and provide the financing to households in Pinrang district. However, this cooperative is relatively small in assets and management capacity is limited. Improvement of their institutional capacity is critical to enable them to continue the sanitation business. When dealing with such small institutions it is important for IUWASH to also provide institutional capacity building.

In the business processes, MFIs received indirect and direct support. E.g. cooperatives in Tangerang received a grant from Water.org, which is used for promotion. Local Banks received seed funding from local governments. The MFIs and banks are still indirectly subsidized, e.g. by means of promotional support, and low cost funding for rural banks.

Other financing schemes

There are several other financing schemes which may be used to directly or indirectly subsidize water and sanitation facilities for low income families.

In collaboration with the Provincial Government, the Central Java Regional Office has promoted use of the PNPM Mandiri program (National Program for Community Self-Empowerment) to implement on-site sanitation. The IUWASH Central Java office supported 10 LG teams in using PNPM for helping communities to developing their own sanitation program. PNPM funding has been used to co-finance on-site sanitation for about 17,500 individual low income households. This initiative has raised the total budget for sanitation to about 23 billion rupiah from 2013 to 2015. The contribution from HHs to that total budget is about 8 billion rupiah.

Another incentive scheme, which is not directly related to IUWASH, is the "Water Hibah" facility, which is an output-based subsidy scheme aimed at increasing the number of new water connections, especially for low-income families set up by the DFAT sponsored IndII program. In some cases IUWASH has assisted PDAMs with mapping of low-income families/areas and in the design of promotional product pricing in offering connections to the target group. After verification, LGs will be reimbursed for every new connection. The idea is that LGs will channel these funds in turn to the PDAMs. The Water Hibah scheme has stimulated PDAMs in extending coverage to low-level income households. Some PDAM with limited working capital have not been able to fully utilize this facility due to cash flow constraints.

In certain government programs it is possible that water connections or on-site sanitation for low-income groups is subsidized by LGs or PDAMs through certain grant schemes. This could potentially compete with microfinance programs and create confusion among potential users. Therefore, when and where this occurs, it should be very clear which groups are targeted by the government, the dissemination area needs to be mapped, and banks/MFIs need to be informed to avoid confusion. While IUWASH is fully aware of this, in some districts this issue has not yet been resolved.

With regard to Corporate Social Responsibility (CSR) mechanisms for financing of SMEs, the evaluation mission has not come across any viable schemes in the districts it visited. In Tangerang and Jombang, a CSR Forum already existed, however, it was not very active. In Jombang, IUWASH facilitated discussions with the private sector and developed the draft of a CSR forum structure that was proposed to be managed by the private sector. However, the CSR forum never materialized.

Also in Tangerang, SCTV (a local television company) granted the initial capital of a revolving fund to be used for sanitation. This revolving fund has helped facilitate construction of some sanitation facilities. SCTV broadcast its support to the community through television, radio and other media statements, emphasizing that the initial capital for the revolving fund was a grant. This has resulted in the community questioning SMEs why they charged their normal costs. As a result, SMEs suffered from decreasing willingness in the community to pay. The difference between the message delivered by the company and the nature of the revolving fund hampered SMEs business. Therefore, when a mixture of free toilets from government and revolving funds exists, SMEs are more cautious in using their own capital to provide financing.

5.4.3 Conclusions

Successful marketing and implementation of WSS schemes requires a holistic approach, including

1. A strong and effective sanitation promotion that is tailored to the characteristics and socio-economic development of the community in an area
2. Availability of a reliable supply of various types of affordable products of an acceptable quality and
3. Access to a reliable source of affordable finance.

IUWASH efforts in promoting MF have created promising initiatives for increasing household access to finance for water and sanitation improvements. A diversity of experiences suggests different types of financing schemes may be applied for different target groups. Furthermore, in the absence of a potential MFI to partner with, credit schemes provided by Government and PDAMs can be an option to enter new areas and particularly when dealing with low income HHs. Different schemes can complement each other.

IUWASH' pilots with MFIs have generated substantial experience and business cases. Based on this, there is a need for formulating a microfinance strategy that supports the IUWASH overall program, providing implementation guidelines that work within the GOI structure. The strategy may be implemented differently in different areas. It is important, to have a good understanding of market potential, the availability of MFIs, their capacity, institutional characteristics, risk profiles and opportunities.

Despite the initial enthusiasm of MFIs for the opportunities of the WASH sector, financing of WSS facilities for MFIs is a non-productive loan and they will therefore consider this type of lending as relatively high risk. It is therefore not likely to become a major part of their portfolio. IUWASH should keep this in mind when assisting and encouraging MFIs to develop WSS financing.

IUWASH' level of effort in assisting MFIs varies for each institution and is based on local conditions. The pilots have not yet achieved sustainability of the services for both MFIs and SMEs. The implementation shows that incentives and subsidies are still needed.

Upscaling of IUWASH experience in microfinance will require a more strategic approach, targeting a larger group of financial sector institutions and microfinance wholesale and retail players.

Both SMEs and MFIs require an environment that enables them to operate in a sustainable way. The simultaneous implementation of government subsidies or CSR grants and microfinance schemes for WSS facilities may undermine such efforts.

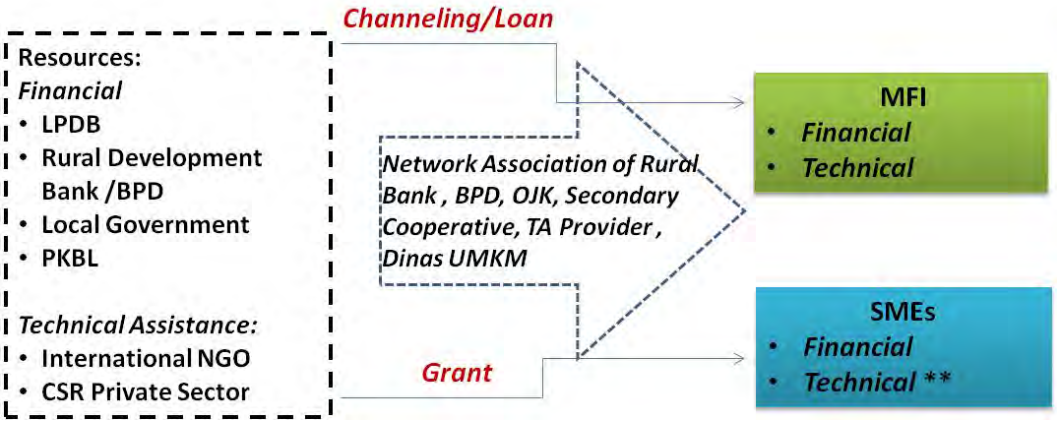
5.4.4 Microfinance Recommendations

a. Based on the experience gained so far it is recommended that IUWASH develop a clear microfinance strategy that supports the IUWASH overall program, providing implementation

guidelines that work within the Indonesian context and GOI structures. The strategy will need to be modified to suit the needs and characteristics of different areas. Prior to entering a new region, it is important to have a good understanding of the potential market, the availability of MFIs, their capacity, institutional characteristics, risk profiles and opportunities.

b. In scaling-up microfinance as an instrument for the WASH sector, it is important to facilitate cooperation between financing institutions at different levels, as follows:

- At the Intermediate Level by mapping of the financial conditions and developing instruments supporting the sector (e.g. guarantee institutions) and by approaching and using intermediate mechanisms involving Bank - and MFI networks, such as Secondary Cooperatives, Provincial Development Banks (BPDs) and Associations of BPDs, Lembaga Pengelola Dana Bergulir (a government financing institution supporting cooperatives and SMEs).
- At the national level: to facilitate discussions between Government, and the financial sector to: i) develop guidelines for field interventions to create the enabling environment for the financial sector to provide microfinance services for WASH; and ii) explore incentive mechanisms or semi commercial schemes for Microfinance in sanitation.



c. To build capacity of MFIs it is suggested that IUWASH cooperates with microfinance technical providers such as Water.org, Microsave, and others.

5.5 SME DEVELOPMENT

5.5.1 Findings

Sanitation entrepreneurs, operating in small and medium enterprises (SMEs), are providing the delivery and construction of sanitation facilities. SMEs are mostly driven by the potential of business. Making use of local suppliers creates new markets for local entrepreneurs while at the same time allowing for the delivery of sanitation facilities close to the community. The sanitation facilities introduced by IUWASH are in line with national standards (SNI) and, if correctly constructed, are of the required quality.

Sanitation entrepreneurs are often new to the sanitation sector and, therefore, IUWASH supported developing their capacity by providing training, including: i) sanitation marketing; ii) technical product requirements (SNI standard); and iii) basic business planning and bookkeeping; The sanitation marketing training helps SMEs market their products better and more effectively. Sanitation Entrepreneurs are also trained in how to conduct meetings with the community for demand triggering and product promotion, and they are provided with samples of materials, information kits and brochures on sanitation facilities.

SMEs are structured in different ways. Sometimes they are organized in a group (KWS) and in some cases they operate as individual SMEs. A KWS is formed by the LG Health department to provide sanitation services in a sub-district (Kecamatan). It is regulated by a "letter of appointment" from the village head. This letter allows them to officially enter villages to market and deliver the sanitation product. Commitment and support from head of the village is critical.

The KWS members consist of community members committed to supplying sanitation facilities, conducting the business, and supporting local government in sanitation promotion. Despite the support from local government, KWS groups are facing constraints, including (lack of) cooperation among members, division of tasks and responsibilities and workload fluctuations. Furthermore, KWS members often lack operational management capacity, funding, knowledge of marketing and products, etc.

Pak Uki and Ibu Badriyah are both members of different KWS in Tanggerang district. The KWS have constructed about 120 – 130 toilets in their community. Since there is no MFI active in their district, they provided financing for HHs that could not directly pay in cash. The product is sold ranging from 3.5 – 4 million rupiah with tenor of payment 1.5 – 2 years. In conducting business they are facing various challenges such as lack of working capital and collection of payment, promotional activities and continuity of work. They are concerned about the repayment rate and collection. Despite IUWASH conducting some training on bookkeeping, introduction to business and planning, this was insufficient to achieve sustainability. For promotional activities they suggest that informal meetings and the existence of sample products in the community are the most effective way to promote sanitation. However, to make it effective requires time and resources.

In some areas visited, individual sanitation suppliers are mainly sanitarians. It appears that when IUWASH introduces the program to the LG Health Office, it triggers the interest of health sanitarians to also deliver the facilities. To some point this is an advantage for the program as sanitarians already have some knowledge and capacity on the issues of sanitation and know the market. However, this could also potentially limit existing SMEs in the business and thus create a conflict of interest.

In creating cooperation between the parties, IUWASH introduced and linked MFIs/Banks with SMEs and LG departments, and functioned as a catalyst by initiating discussions, developing the interest of all parties and facilitate preparation of a cooperation agreement. This facilitating role is crucial in

developing cooperation between the key players and it is essential to ensure that this role in future is adopted by government institutions such as UPTD.

In Indonesia, responsibility for supporting and regulating cooperatives and small and medium enterprises lies with the Ministry of Cooperatives and SMEs. The task of this ministry is also to increase the capacity of human resources of cooperatives and SMEs. During the microfinance event of IUWASH organized in February, this ministry was invited and provided one of the panelists.

SMEs in sanitation are facing challenges in the continuous development of their businesses as there is a need for entrepreneurs with technical skills as well as business management capacity working in a complex environment with multiple stakeholders. There currently is no business development and support function for SME's in sanitation. MPWH and related LG public works agencies might provide technical support, whereas the MOH may be a source for support in marketing and promotion. The Ministry of Cooperatives and SMEs may be a possible source of business development support, with emphasis on the financial, administrative and commercial aspects of the business.

The Sanitation product (product package).

In Tangerang, pricing of the sanitation products is determined by the cooperative, KPP UMKM following the technical design by IUWASH. Not many SMEs are able to deliver the quality and quantity (the product package) required by the cooperative. The cooperative concerned may have its own reasons for selecting and requiring a highly priced septic tank model; however, the type of sanitation product is likely to affect community acceptance.

IUWASH staff also reported the case of a Credit Union in North Sumatra. This MFI found it difficult to market the loan due to the high price of the sanitation product i.e. Rp 6 million. It appears that even with the availability of financing services, when the sanitation product is not appropriately designed and priced in line with preferences and ability to pay in the community, households will not be interested to borrow for sanitation.

Furthermore, pro-active and close management is required, as LGs with IUWASH support do not have direct control over SMEs, over prices in the market and the various types of sanitation products offered, HHs may get confused which will reduce their motivation.

SMEs also expressed concern about (the lack of) desludging services. Some HHs inquire even during the promotional events on whom to contact for desludging. SMEs realize the importance of being able to answer this question, otherwise it may discourage HHs. SMEs also recognize the business opportunity for this service.

5.5.2 Conclusions

Sanitation entrepreneurs operating as individual entities or in groups of SMEs (KWS) are mostly new to the activity and have limited experience in running the business. The success and sustainability of sanitation marketing depends not only on the availability of SMEs but also on maintaining the quality of the product and on improving SMEs business capacity.

SMEs which were already active in sanitation have benefitted from IUWASH training programs and from the introduction of the SNI standard and different types of sanitation products. Also, they have been able to expand their market through engagement with the IUWASH program. IUWASH also has also been instrumental in increasing the number of new SMEs and herewith improved the availability of sanitation construction services in the market.
Currently, there is no technical, business or financial support function for SME's, which in general still have limited capacity. Technical support might be provided by the LG public works departments whereas the MOH may be a source for support in marketing and promotion. The Ministry of

Cooperatives and SME may be a possible source of business development support for SME's, with emphasis on the financial, administrative and commercial aspects of the business. With regards to financing, many SMEs are also facing challenges in obtaining working capital from formal financial institutions.

5.5.3 Recommendations

To enhance the sustainability of Sanitation Entrepreneurs, it is recommended that IUWASH Plus explore and, where feasible, facilitate arrangements for a business support function known as Business Development Services (BDS), which may include:

a. Support on technical issues;
b. Support in promotion and marketing;
c. Support for business development such as planning, financing, and administrative management of running a business.

IUWASH Plus should seek to facilitate support from both government agencies (LG, public works, health, and Ministry of Cooperatives an SME) and other public or private actors such as consultants and BDS firms.

6 EVALUATION QUESTION NO 5 – WASH PRIORITIES AT THE LG LEVEL

6.1 INTRODUCTION

Evaluation Question 5 is formulated as follows:
Evaluation Question 5: What IUWASH approaches have been most successful in increasing WASH priorities to include budget allocation by IUWASH assisted local governments, especially in setting up and or improving the performance of WASH institutions?

The Evaluation Mission has interpreted this question as follows:
Which IUWASH approaches have been most successful in generating momentum and priorities for WASH at Local Government Level in terms of increased budget allocations and setting up and improving performance of WASH institutions?

6.2 FINDINGS

Over the past years IUWASH has monitored variations in LG budgets for WASH and these data are presented in Appendix 9 . According to this information, LG WASH budgets between 2009-2011 and 2012-2015 have more than doubled and increased by an average of 102%. There are a number of districts that stand out and show increases of more than 300%, as follows:

Local Government WASH Budgets

No	District	Increase 2009-2011 2012-2015
1	Kabupaten Tangerang	658%
2	Kabupaten Lebak	368%
3	Kabupaten Kudus	300%
4	Kota Semarang	408%
5	Kabupaten Semarang	928%
6	Kabupaten Sukoharjo	306%
7	Kabupaten Rembang	332%
8	Kabuaten Batang	410%
9	Kota Makassar	677%
10	Kota Maros	358%

Six out of ten LGs in the above list are from Central Java. Three of the above LGs established a new UPTD with the help of IUWASH (Kabupaten Rembang, Batang and Maros) and three are in the process of doing so (Kabupaten Semarang, Kudus and Lebak). Most LGs in the above list also show significant increases in numbers of new water connections and improved sanitation facilities and most LGs have received extensive support from IUWASH in developing both on-site and communal sanitation systems.

6.3 CONCLUSIONS

In the course of the project, IUWASH has been implementing a TA program in the water supply and sanitation sectors, with 36 separate types of TA interventions in 54 Local Governments and 50 PDAMs spread over five (5) regions. It is not easy to scientifically determine which type of TA intervention has been most successful in generating increased momentum or budgets for WASH.

The reasons why LG budgets have increased may be multiple and will differ from one district to the other. Sometimes it may be a large project, sometimes it may be the support of the Mayor or Bupati, etc. Additional research is needed to determine the exact reasons behind the growth of LG budgets and as a systematic review was not possible during this evaluation.

Based on the interviews and discussions during field visits and based on its own experience, the team believes that the following IUWASH approaches may have contributed to creating momentum for WASH at the LG level, as follows:

Local Government

a. Leadership: As in many other bureaucracies, the functioning of LGs in Indonesia is very much based on the direction set by its leadership. It is therefore very important to inform, consult and involve the leaders of the LG bureaucracy in WASH programs and activities. Therefore, TA activities such as visioning workshops to engage LG leadership and training of Supervisory Board members of PDAMs are important in creating necessary awareness and commitment.

Water Supply

b. Water tariffs: IUWASH TA in assisting PDAMs to prepare for and implement adjustments and reclassifications to water tariffs has resulted in increased tariff revenues for PDAMS of an estimated 39%. Water tariffs in Indonesia in most cases only cover the costs of operation and maintenance, leaving PDAMs fully dependent on external financing for capital investments. Any increase in regular tariff revenues, therefore, is an important contribution to the financial sustainability and development potential of PDAMs.
c. TA and financing for capital investment: IUWASH TA has functioned as a catalyst in accelerating capital investments in water supply, contributing to about Rp 0.9 trillion in approved projects and about Rp 2 trillion in investments underway. About Rp 0.8 trillion of these funds is from LG budget and PDAMs. Part of this TA has consisted of providing targeted TA in project development (feasibility studies and/or DED) and partly in advocacy and networking between different levels of government to leverage funding for new capital projects.
d. Co-financing mechanisms: In a number of cases PDAMs, with support of IUWASH, have made effective use of co-financing schemes such as Water Hibah.

Sanitation

e. Capacity building: Although it may appear obvious, sustained and systematic TA support in developing and strengthening the institutional framework for sanitation appears to be a successful method in creating momentum for sanitation
f. Co-financing mechanisms: In Central Java, IUWASH in consultation with the provincial government, identified the option of using the PNPM Mandiri budgets for sanitation. PNPM budget is provided by the central government but its use is managed by LGs in collaboration with communities. The PNPM approach for sanitation was subsequently introduced in the 10 IUWASH districts in Central Java, resulting for the period 2013-2016 in improved on-site sanitation for some 17,500 households with and additional PNPM

budget of about Rp 23 billion. From visits to Klaten is was also learned that the use of the PNPM budget generated co-financing from local government budget and from households.

g. City-wide desludging management: The evaluation mission has been impressed by the momentum that has been created in developing of city-wide desludging management systems by both PDAM's and UPTD's in a number of larger cities with support from IUWASH. Although setting up such systems requires rather strong and well developed institutions, the schemes look promising and have the potential to significantly strengthen management and service levels for wastewater management in urban areas and are worthwhile to follow up.

6.4 RECOMMENDATIONS

It is recommended that in the process of preparing the final report, the current IUWASH team makes use of the available experience in the team and the large amount of data collected, to assess the possible reasons why certain LGs and/or PDAMs have performed well and others have not and which IUWASH approaches have most affected the eventual achievements. It would be very useful if the findings and conclusions and the lessons learned are shared with all major stakeholders during a kind of "end of project" workshop to take place before the project is terminated.

7 OTHER FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

During the evaluation the team has come across a number of general issues, not covered in any of the evaluation questions, which it thinks are worthwhile to be included in this report.

7.1 ATTRIBUTION TO HIGH LEVEL RESULTS

The first two high level results of IUWASH are :

- 2,400,000 million people in urban areas gain access to improved water supply as a result of US Government assistance;
- 250,000 people in urban areas gain access to improved sanitation facilities as a result of US Government assistance.

IUWASH is a TA project with only limited funding for actual investments. Therefore IUWASH depends on third parties for financing and physical implementation. IUWASH provides advice, technical services, advocacy, facilitation, training etc. The project acts as a catalyst and it is instrumental in achieving the high level results.

However, in its communications regarding the project, progress on the high level results was sometimes presented as if IUWASH has realized these by itself, without acknowledging the contributions of the other agencies involved. This lack of acknowledgement has been commented upon in meetings with almost all national level GOI agencies.

The Evaluation Team therefore recommends that USAID and IUWASH review how progress on high level results is communicated, to ensure that in future project reports and documents the role of IUWASH is clear and the contribution of other stakeholders acknowledged.

7.2 NATIONAL LEVEL NETWORKING

Throughout the project, IUWASH has (rightly) focused on working with local government institutions and PDAMs who have the primary responsibility for water and sanitation service delivery to the population in their cities and districts. In the course of working with LG's, IUWASH has also consulted and coordinated with provincial and national level GOI agencies and with other development partners such as WB, ADB and WSP. This collaboration has certainly produced valuable results, such as IUWASH work with MPWH on producing the Energy Efficiency Audit Guidelines and on the development of city-wide sludge management, working with MoF on (monitoring of) debt restructuring and the CWL and its advocacy in trying to leverage funds for capital investments in water and sanitation.

It is certainly not the intention of the evaluation team to indicate that IUWASH has neglected its collaboration with national level agencies. However, the team thinks that more can be gained by strengthening and extending its networks at the national and provincial level (including deconcentrated national government agencies), in terms of developing and strategizing approaches and in terms of leveraging resources for WASH.

Likewise the team is of the view that projects like IUWASH provide a wealth of experience and potential in working with LG's and PDAMs and national and provincial GOI agencies would benefit from a more pro-active approach and cooperation.

7.3 IUWASH PLUS ENTRY CRITERIA FOR DISTRICTS AND CITIES

In its discussions with various stakeholders at national and local government level, the evaluation team has developed some thoughts around entry criteria that could be used in the selection of districts and cities to be involved in IUWASH Plus, as follows:

a. LG Commitment: This may be the most important criterion for future collaboration. LGs set their own priorities and these do not necessarily include water and sanitation. Commitment can be measured by LG's willingness to commit to realistic action plans focused at achieving tangible improvements in WASH.
b. Continuity and need: In the current phase of IUWASH substantial investments have been made in establishing the institutional frameworks in the sanitation sector, staffing the UPTDs, updating the plans, undertaking pilot projects, etc. Also in the water sector a number of PDAMs have only just started to achieve tangible improvements in performance. It is recommended that IUWASH Plus builds on the work and achievements of IUWASH.
c. Potential: In a number of districts and cities IUWASH has initiated activities that have the potential to substantially enhance access to improved water and sanitation. Examples are development of city-wide sludge management services by UPTD's and PDAMs and collaboration with banks and groups of SME's in micro-finance schemes. It is important to continue development of these concepts.
d. Water and Sanitation: Water supply and wastewater management are part of the same cycle and where possible it will in most cases make sense to combine TA to both sectors in one district.
e. Level of urbanization: Increasing access to WSS facilities in urban areas poses a specific set of problems, requiring "urban" approaches. Some areas visited by the team almost had a rural character, which would require different approaches and strategies. It is understood that in Indonesia there exist various definitions of "urban[24]". It would be useful if in a next phase the project could be more selective in incorporating those areas that have common urban characteristics, taking note of the interaction between urban and surrounding rural areas.

As the current IUWASH project does not specifically focus on the poor, the above list does not include poverty criteria, which are included in the SOW for the next phase.

7.4 EXIT STRATEGIES

Currently there are no clear exit strategies for IUWASH TA work in various LGs and PDAMs. Preparing and committing to strategic action plans with clear objectives and intermediate results, as suggested in Chapter 5 of this report, would provide the basis for such exit strategies. TA could e.g. be terminated when certain objectives have been achieved or when certain conditions in the plan have not been met.

[24] Indonesia's Central Bureau of Statistics (BPS) uses criteria such as population density, percentage of agricultural households, and number of urban facilities (roads, formal education facilities, etc.) to determine an urban area. Technical departments and LGs have different definitions or guidance, which may or include central cities, peri-urban areas, traditional suburbs, metropolitan areas, and small and intermediate-sized cities.

7.5 POVERTY FOCUS

IUWASH Plus aims at increasing access to improved water and sanitation services and improve key hygiene behaviors, especially among the poorest and most vulnerable in Indonesia. The evaluation team fully supports the focus on poverty alleviation of IUWASH plus.

However, a word of caution may be appropriate, in the sense that especially for sanitation the existing institutional framework and systems are still very fragile and to reach out to low-income groups the first requirement will be to make the current systems work in a sustainable way. Therefore the evaluation team would recommend poor-inclusive approaches in IUWASH Plus in combination with the development of pro-poor packages and programs.

7.6 IUWASH MANAGEMENT AND REPORTING

The evaluation team would like to conclude its general observations by commending the management and staff of IUWASH for the efficient and capable management of a wide range of TA interventions, which are carried out in collaboration with LG institutions and PDAMs in more than 50 districts and cities in Indonesia.

In this context, it is also appropriate to mention the IUWASH Technical Assistance Management Information System (TAMIS) which provides a wide range of data and information on activities, results, outcomes, and other relevant information related to the project. The system is well-managed, and maintaining TAMIS must have been an effort by the IUWASH team as a whole. The data contained in TAMIS will be a valuable source of information for IUWASH Plus.

APPENDICES

APPENDIX 1: IUWASH – DRAFT LOGICAL FRAMEWORK

Project Description		Targets and Indicators of Achievement		Sources and means of verification	Key Assumptions
IUWASH Overall Objective	Assist GOI in accomplishing its MDG targets in the water and sanitation sector				
IUWASH Higher level objective and expected results	To ensure both equitable and sustainable access to safe drinking water and sanitation	HR-1	2,400,000 million people in urban areas gain access to improved water supply as a result of US Government assistance.	See Project Monitoring Plan Project Quarterly and Annual Project Reports IUWASH Technical Assistance Management Information System (TAMIS)	
		HR-2	250,000 people in urban areas gain access to improved sanitation facilities as a result of US Government assistance.		
		HR-3	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.		
		HR-4	100,000 people who participated in IUWASH related training activities;		
IUWASH Intermediate Results	Mobilize Demand (MD): Demand for safe drinking water access and improved sanitation mobilized among urban communities and households with currently unimproved access.	MD-1	50.000 households have willingness to pay for sanitation improvement;	Project Monitoring Plan Project Quarterly and Annual Project Reports IUWASH Technical Assistance Management Information System (TAMIS) PDAM/LG reports KIIs /FGDs with LG/PDAM staff and beneficiaries	Mobilized Demand, Increased Capacity and Enabling Environment will contribute to achieving High Level Results 1-3.
		MD-2	100 government institutions and/or CSO implementing programs to mobilize improved access to safe drinking water and adequate sanitation		
		MD-3	20 CSO report on PDAM operations or performance		
		MD-4	20% of households adopt improved health and hygiene practices.		
		MD-5	100 master trainers exposed to new urban promotion strategy to support participatory planning activities, such as "triggering" exercises, and behaviour change programming developed		
	Increase Capacity (IC)	IC-1	50 PDAMs with improved technical, financial and management performance	Project Monitoring Plan	

Project Description	Targets and Indicators of Achievement		Sources and means of verification	Key Assumptions
The capacity to sustainably supply this mobilized demand with improved water and sanitation services built among the public and private sector institutions best placed to provide these services in urban areas	IC-2	20 PDAM's supported to develop debt restructuring plans;	Project Quarterly and Annual Project Reports IUWASH Technical Assistance Management Information System (TAMIS) PDAM reports MPWH-BPP-SPAM database MPWH/WB water resources studies KIIs with LG/PDAM staff	
	IC-3	20 PDAM's improved credit worthiness;		
	IC-4	20 local governments implementing necessary climate change adaptation measures, based on preliminary raw water sources vulnerability assessment		
	IC-5	20 LG implementing integrated sanitation and hygiene interventions that reflect their citywide sanitation strategic plans;		
	IC-6	45 SME providing affordable construction and sanitation facility management services;		
	IC-7	20% of poor residents in targeted communities report greater satisfaction with watsan services;		
	IC-8	10 Sanitation Management Units established with supporting policies, budgets and personnel		
	IC-9	One sustainable Urban Sanitation Framework adopted by the government institutions as a key part of national sanitation programming policy		
	IC-10	100 stakeholders from central government agencies, universities and NGOs, as well as those from local government institutions among current IUWASH sites, that will have increased capacity to adapt to the impacts of climate variability and change as a result of USG assistance		
Enabling Environment (EE): A governance and financial enabling environment created that supports equitable access to safe drinking water and improved sanitation in urban areas	EE-1	50 participating local governments put greater priority on safe drinking water and sanitation through supportive local policies and budget allocation increases	Project Monitoring Plan Project Quarterly and Annual Project Reports IUWASH Technical Assistance Management Information System (TAMIS) Local Government reports PDAM reports KIIs /FGDs with	
	EE-2	15 PDAMs or local governments that obtain access to long-term funding for water or sanitation capital expenditure investment plans		
	EE-3	10 % change (increase?) in financial resources accessed by service providers from public and private sources for expansion of improved water and sanitation services		
	EE-4	20,000 households accessing microfinance for improvement of watsan services.		
	EE-5	20 Local Governments that		

Project Description	Targets and Indicators of Achievement		Sources and means of verification	Key Assumptions
		adopt new or improved mechanisms for citizens to engage local government in water and sanitation	LG/PDAM staff and beneficiaries	
	EE-6	One new or improved regulations to facilitate access to capital financing in the water sector		
	EE-7	12 central government officials exposed to alternative financing options in the water sector in the US or other applicable context		

Activities and Resources	Activities	Staffing and Financial Resources
	IUWASH programs in the 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 programs in the Sanitation Sector** SAN-1: Access to Improved Sanitation through Individual Household Systems SAN-2: Access to Improved Sanitation through Communal Systems SAN-3: Increased Sanitation Access through Off-site Sanitation (Sewerage) SAN-4: Improved Urban Septage Management (IUSM) SAN-5: Establishment and Development of Waste Water Management Operators **IUWASH Cross Cutting Sector Activities** CC-1: Increased Number of Local Government Policies CC-2: Increased Local Government Budget (APBD) CC-3: Improved Citizen Engagement CC-4: Gender Mainstreaming CC-5: Mobilizing Corporate Social Responsibility (CSR) Funding	**Project Staff** 1. Key Staff (International): Chief of Party, Behavioural Change Advisor, Water and Sanitation Technical Advisor, Water and Sanitation Governance and Financial Advisor, Grants Manager 2. Short term International and Indonesian Consultants 3. Indonesian professional and support staff **Project Budget** Demand Mobilization USD 9,540,803 Capacity Improvement USD 17,274,876 Enabling Environment USD 10,342,734 Small Grants Fund USD 1,535,970 Fixed Fee: USD 2,000,242 Total USD 40,694,664

APPENDIX 2: SCOPE OF WORK FOR THE FINAL EVALUATION OF IUWASH

FINAL EVALUATION SCOPE OF WORK
USAID/Indonesia: Indonesia Urban Water, Sanitation and Hygiene (IUWASH) Project

1. Background

In support of its Country Strategy 2009-2014, USAID/Indonesia is funding the 5-year IUWASH project (2011-2016) to help make significant progress in achieving Indonesia's safe water and sanitation MDG targets by expanding access to these services. IUWASH was designed to support the Country Strategy's Assistance Objective (AO) Improved Management of Natural Resources and its Intermediate Result (IR) 3 – Increased Access to Water and Sanitation with an emphasis on reaching the urban poor. IUWASH expected results are:

- 2.4 million people in urban areas gain access to improved water supply as a result of US Government assistance.
- 250,000 people in urban areas gain access to improved sanitation facilities as a result of US Government assistance.
- 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.

In pursuing these results, the IUWASH project aims to ensure both equitable and sustainable access to safe drinking water and sanitation. To contribute to more equitable access, IUWASH was designed to emphasize expanding access among Indonesia's urban poor, currently those people with the most limited access to these services. To ensure that access improvements are achieved and sustained, IUWASH's design was guided by a development hypothesis that requires the Contractor to execute activities which contribute to the achievement of three distinct intermediate results. These intermediate results (or "Components" as described in the IUWASH contract) include:

- Component 1 - Demand for safe drinking water access and improved sanitation mobilized among urban communities and households with currently unimproved access.
- Component 2 - The capacity to sustainably supply this mobilized demand with improved water and sanitation services built among the public and private sector institutions best placed to provide these services in urban areas.
- Component 3 - A governance and financial enabling environment created that supports equitable access to safe drinking water and improved sanitation in urban areas.

Since inception, the project has undergone two performance evaluations: a mid-term evaluation conducted by a team of independent consultants; and a performance audit conducted by the Regional Inspector General's office in Manila. These resulted in several modifications to its targets as well as its approach to reaching such targets.

While the project now moves towards closure, the most recent GOI's Mid Term Development Plan (2015-2019) has also set new sector targets for the Government to achieve Universal Access. Specifically, the national government targets 100% access to drinking water and sanitation by the end of 2019. Although the target is 100% coverage for both, the national government has broken it down into:

- Sanitation: 85% of which are expected to be "on site" systems, 10% communal systems, and 5% centralized / "off-site" systems (sewerage)

- Water supply: Indicator 1 (consumption), 85% population with minimum 60 lpd (minimum service standard), 15% population with minimum 15 lpd (lifeline consumption). Indicator 2 (sources), 60% from piped water (from PDAM), and 40% from safe non-piped water (protected wells, ground water, spring, etc.).

In addition to the above, USAID also plans to implement a follow-on project, IUWASH Plus, which will build on the work of IUWASH while placing greater emphasis on improving access for the urban poor. In this light, the Final Evaluation presents an important opportunity for USAID to leverage the new project to best complement the GOI's own significant commitment and resources, while likewise improving conditions for the urban poor.

2. Purpose and Utilization of the Evaluation

2.1 Purpose

The primary purpose of this Final Evaluation is to provide USAID and the Government of Indonesia (GOI) with an unbiased and transparent review of the success and potential impact that USAID IUWASH has made over the life of the project. As it is believed that, by project completion, IUWASH will have reached all targeted High-Level Results (HRs) and the majority of targeted Outcomes, the Final Evaluation will review the project's success at both the national and local levels in knowledge management and, more specifically, in:

- Informing policy;
- Improving program development; and
- Increasing implementation capacity.

As the timing of this evaluation is appropriate for recommending and suggesting possible future strategic USAID priorities for WASH sector assistance in Indonesia, the Final Evaluation will specifically target five areas of IUWASH intervention that are expected to receive continued support. These include:

- Water utility performance improvement
- Sanitation institution development
- Behavior change communications and gender mainstreaming
- Microfinance and SME development
- Private sector engagement

2.2 Utilization of the Evaluation

The timing of this evaluation is appropriate for recommending and suggesting possible future strategic USAID priorities for WASH sector assistance in Indonesia. A summary of the evaluation report will be shared with the WASH community within USAID and also with the local governments and the national government to meet the universal access under the national initiative.

3. Evaluation Questions

The Evaluation team will answer the following five questions that may be elaborated to sub-questions during the Final Evaluation work plan to cover specific interest in the IUWASH implementation.

The following provides a guide to the questions to be addressed, which the consultant/contractor should seek to refine in consultation with COR of this work:

1. How have the IUWASH communication and knowledge management products (toolkit, videos, PSAs) been accessed and used by the national and local government, other donors, and implementing partners internally and externally?

2. How have IUWASH gender pilot activities affected IUWASH results and WASH benefits to men and women from the household to national government levels?
3. How have the district and city governments, communities, and households in the different regions of Indonesia benefitted from the Behavior Change Communication (BCC) in WASH approach developed and implemented by IUWASH?
4. IUWASH has provided technical assistance to Government of Indonesia funded initiatives at national level (PNPM, SLBM, etc.) as well as at local government level that increase household and on-site water and sanitation access. How has this technical assistance improved the quality of the systems provided by these Government of Indonesia programs at the household level and how effective was the technical assistance in leveraging additional resources for WASH?
5. What IUWASH approaches have been most successful in increasing WASH priorities to include budget allocation by IUWASH assisted local governments, especially in setting up and or improving the performance of WASH institutions?

4. Evaluation Methodology

The final assessment should reflect principles of USAID's Evaluation Policy that include: (1) Unbiased in measurement and reporting; (2) Relevant; (3) Based on the best methods; (4) Transparent.

The evaluation will be carried out in Indonesia by a team of external consultants over a four to five week period, and include multiple qualitative and quantitative methods. One or more USAID staff and GOI representatives will join the evaluation team during the team planning meetings and in briefings, site visits, debriefings and report preparation.

Document Review: Team members will review the IUWASH Statement of Work, Performance Monitoring Plan, quarterly and annual reports, mid-term evaluation report, RIG Audit report and other relevant documents (especially key documents related to on-going or planned GOI sector investment plans and donor projects) from the project counterparts and partners, including local and national government, water utility, local NGOs and donor organizations.

Key Informant Interviews: The team will conduct interviews (already mentioned below) to obtain feedback on the significant changes before and after project implementation with a representative number of stakeholders including national and local level government staff, USAID staff, other donors, IUWASH grantees, IUWASH project staff, ensuring representation from all necessary sectors of water, sanitation, hygiene, health, governance, and the environment.

Focus Group Discussion: The team will conduct focus group discussions with women in leadership positions, local government and water utility representatives, sanitarians, and other project beneficiaries to obtain feedback on the significant changes before and after project implementation.

Site Visits: In addition to offering the opportunity to interview stakeholders outside of Jakarta to solicit views on the overarching evaluation questions, the Evaluation Team will conduct direct observations of selected project locations in five IUWASH regions to collect and/ or validate data and inform findings related to the questions above. Staff from the USAID/Indonesia Environment Office and IUWASH will assist in organizing logistics for all site visits for the Evaluation Team and may accompany the Evaluation Team.

Data Analysis: Team members will analyze IUWASH documents and analyze the information gained from key informant interviews and site visits in order to inform their findings and recommendations. The team will keep a record of meetings that take place and record the summaries of each meeting.

5. Deliverables and Timeline

5.1 Deliverables

The evaluation team will be responsible for producing the following deliverables:

1. Draft Work Plan, to include:
   - Preliminary analysis of project reports, products and data in relevance with the scope of work for the Final Evaluation,
   - Evaluation methodology that will be applied to provide evidence (findings) to support each question, including questionnaires and data analysis methodology,
   - Evaluation schedule, list of people/ groups to be interviewed, timeframe and draft schedule of field activities.
2. Finalized De-briefing presentation in PowerPoint of findings with bulleted response to evaluation questions, before evaluation team departs Indonesia
3. Draft report for review by USAID and IUWASH team.
4. Final evaluation report following standard reporting format and branding guidelines, within 2 weeks of receiving Mission comments on draft report.

Illustrative Outline for Evaluation Report
An illustrative outline of the Evaluation Report is provided as follows:

Executive Summary
The Executive Summary will state the IUWASH objectives; purpose of the evaluation; study method; findings; conclusions, lessons learned and recommendations for future USAID programming priorities.

Table of Contents

Introduction
The context of what is evaluated including the relevant history demography socioeconomic and basic political arrangements.

Body of the Paper

1. The purpose and study questions of the evaluation. A brief description of the project.
2. Evidence, findings and analysis of the study questions.
3. Conclusions drawn from the analysis of findings stated succinctly.
4. Recommendations for USAID future directions in water and sanitation

Appendices shall include:

1. Evaluation scope of work
2. List of relevant targets and results
3. List of documents consulted
4. List of individuals and agencies contacted
5. Schedule of activities in an Excel format
6. Evaluation Team composition
7. Details on evaluation methodology if necessary

All reports must be submitted in English in both electronic and hard copies. The team will provide five (5) printed copies of the Draft & Final Evaluation reports and five (5) printed copies of the Power Point presentation.

The Final Evaluation Report and presentation addressing the Mission's comments should be submitted in Word, PowerPoint and PDF formats. IUWASH will submit the Final Evaluation report to the Development Experience Clearinghouse for archiving.

5.2 Illustrative Time Frame

Approx. Timing	Activity	LOE Team Lead	LOE BBC Spec.	LOE Wash Spec.	Location
End Jan.	• Review of project reports, products and data. • Preliminary analysis of project results	5	3	3	Home
Feb	• In-Country Team Meeting • Review key issues with USAID, IUWASH and key stakeholders (i.e. Bappenas) as required. • Finalize evaluation methodology and proposed schedule and present to USAID for concurrence (to include: site visit schedule, interview list, additional data requests).	5	5	5	Jakarta
Feb.	• Develop questionnaires / other tools to be used in conducting surveys and fieldwork.	2	2	2	Jakarta
Feb.	Site visits, interviews, FGDs, additional data collections	12	12	12	Outside Jakarta
Feb.	• Completion of data collection • Analysis of data and results of site visits, • Development of initial findings and recommendations	5	5	5	Jakarta
March	• Exit discussions with USAID and IUWASH team as appropriate. • First draft of evaluation report	5	5	5	Jakarta
March	Completion of report draft and submission to USAID	5	3	3	Home
March	Review and comment period	n.a.	n.a.	n.a.	
April	Finalization and submission of Evaluation Report.	9			Home
April	Presentation of evaluation findings at USAID/W	2	0	0	WDC
	TOTAL	**50**	**35**	**35**	

6. Team Composition

The Evaluation Team shall consist of at least three (3) individuals with substantial experience in water, sanitation and hygiene service delivery in mid and low-income countries with USAID and/or other donors. Team members and related resources are as follows:

1. **Team Leader:** The team leader will serve as the primary point of contact between the USAID/Indonesia and Evaluation Team. The Team Leader will have primary responsibility for ensuring the deliverables are completed in a timely manner and are responsive to this Scope of Work and other directives USAID may issue, including the fulfillment of criteria set forth in Appendix A. He/She must:
   - Have knowledge and experience in water and sanitation, particularly utility strengthening, regulatory reform and/or institutional reform
   - Be able to conduct interviews with a range of government officials, development partners and project staff;
   - Have the experience to synthesize large amounts of data and information and synthesize the results into meaningful conclusions in a format usable to USAID and its implementers;
   - Have a proven track record in terms of leadership, coordination, and evaluation delivery for development projects and programs;
   - Have excellent writing/organizational skills and proven ability to deliver a quality written product (Evaluation Report and PowerPoint).
   - A minimum 10-years' experience and Master's Degree.

2. **BCC/Gender Specialist:**
    - Senior-level technical BCC/Gender expert with experience in Indonesia and in evaluating BCC/gender programs.
    - A minimum 10-years' experience and Master's Degree.
3. **WASH Community/Microfinance Specialist:**
    - Senior-level technical specialist with experience in the evaluation of community-based WASH programs, including that related to household/community-level financing and construction.
    - A minimum 10-years' experience and Master's Degree.

Note: To facilitate follow-on support to USAID/Indonesia in future project design and promote alignment between Mission programming and implementation of the USAID Water Development Strategy, USAID/Washington will provide two WASH sector specialists to participate in the evaluation at no cost to IUWASH. At a minimum, these team members will assist in pre-evaluation planning, data collection and data analysis.

Additional Support: To assist the Team in its work:

- IUWASH Project will: facilitate logistics; provide copies of reports, data and other relevant documentation; and assist with additional local requirements, as needed (e.g. translation, arranging meetings, etc.).
- USAID will: Provide close supervision of the overall evaluation effort, especially during the planning/preparation phases, at intermittent occasions during the Team's interviews and site visits, and in the review of findings and recommendations. USAID will also assist in arranging high level meetings and access to the US Embassy compound as necessary.

7. USAID Management of Evaluation

The USAID/Indonesia Point of Contact for the evaluation will be Trigeany Linggoatmodjo with Alternate Point of Contact Nur Endah Shofiani. An evaluation committee comprised of the IUWASH COR, ACOR, representatives of the Environment office, Program office, DO2 team will be formed to respond to questions from the team, resolve administrative or logical obstacles and review evaluation team's deliverables.

SOW - APPENDIX A

CRITERIA TO ENSURE THE QUALITY OF THE EVALUATION REPORT

- The evaluation report should represent a thoughtful, well-researched and well organized effort to objectively evaluate what worked in the project, what did not and why.
- Evaluation reports shall address all evaluation questions included in the scope of work.
- The evaluation report should include the scope of work as an annex. All modifications to the scope of work, whether in technical requirements, evaluation questions, evaluation team composition, methodology or timeline need to be agreed upon in writing by the technical officer.
- Evaluation methodology shall be explained in detail and all tools used in conducting the evaluation such as questionnaires, checklists and discussion guides will be included in an Annex in the final report.
- Evaluation findings will assess outcomes and impact on males and females.
- Limitations to the evaluation shall be disclosed in the report, with particular attention to the limitations associated with the evaluation methodology (selection bias, recall bias, unobservable differences between comparator groups, etc.).
- Evaluation findings should be presented as analyzed facts, evidence and data and not based on anecdotes, hearsay or the compilation of people's opinions. Findings should be specific, concise and supported by strong quantitative or qualitative evidence.
- Sources of information need to be properly identified and listed in an annex.
- Recommendations need to be supported by a specific set of findings.
- Recommendations should be action-oriented, practical and specific, with defined responsibility for the action.

APPENDIX 3-A: MEMBERS OF THE EVALUATION TEAM

The evaluation team consisted of the following persons:

Name	Function
[redacted]	[redacted]

APPENDIX 3-B: QUESTIONNAIRES FOR INTERVIEWS AND FOCUS GROUP DISCUSSIONS

Questions related to the Key Evaluation Questions

1. How have the IUWASH communication and knowledge management products (toolkit, videos, PSAs) been accessed and used by the national and local government, other donors, and implementing partners internally and externally?

    a. Which communication and knowledge management (CKM) products have been produced by IUWASH?
    b. Which groups are the prime users of the different CKM products?
    c. How has IUWASH 'marketed" the various CKM products?
    d. How and to what extend are the different stakeholder groups making use of the IUWASH CKM products and how could this use be further improved?

2. How have IUWASH gender pilot activities affected IUWASH results and WASH benefits to men and women from the household to national government levels?
    a. Describe IUWASH gender policies, strategies and objectives
    b. Which gender pilot activities have been undertaken by IUWASH?
    c. How have these affected IUWASH results?
    d. How have these affected WASH benefits to men and women? Have beneficiaries in areas with gender pilots experienced any different results?
    e. Have any of the pilots been scaled up/ replicated by government?

3. How have the district and city governments, communities, and households in the different regions of Indonesia benefitted from the Behavior Change Communication (BCC) in WASH approach developed and implemented by IUWASH?
    a. What is IUWASH's BCC Strategy and Approach? How did it start and how did it change after the midterm review of the project?
    b. How has it been implemented?
    c. Who has benefitted from IUWASH BCC?
    d. To what extent has IUWASH BCC been effective and how and to what extent have different stakeholder groups making use of the IUWASH-BCC approach.

4. IUWASH has provided technical assistance (TA) to Government of Indonesia funded initiatives at national level (PNPM, SLBM, etc.) as well as at local government level that increase household and on-site water and sanitation access. How has this technical assistance improved the quality of the systems provided by these Government of Indonesia programs at the household level and how effective was the technical assistance in leveraging additional resources for WASH?
    a. What is meant exactly by IUWASH TA to GOI initiatives?
    b. To what extent has IUWASH TA improved the quality of GOI WASH programs? Water? Sanitation?
    c. To what extent has IUWASH TA been successful in leveraging additional resources for WASH?

5. What IUWASH approaches have been most successful in increasing WASH priorities to include budget allocation by IUWASH assisted local governments, especially in setting up and or improving the performance of WASH institutions?
    a. Which IUWASH approaches have been used for increasing priority for WASH by local governments, resulting in allocation of new budgets for WASH?
    b. Which IUWASH approaches have resulted in setting up or strengthening of WASH institutions within or by local governments?

Information Matrix related to key evaluation questions

Evaluation Questions	Water utility performance improvement	Sanitation institution development	BCC & Gender	Microfinance & SME	Private Sector
Q1. How have the IUWASH communication and knowledge management products (toolkit, videos, PSAs) been accessed and used by the national and local government, other donors, and implementing partners internally and externally?					
a. Which communication and knowledge management (CKM) products have been produced by IUWASH?	Document Review IUWASH Staff KIIs	Document Review IUWASH Staff KIIs	Document Review IUWASH Staff KIIs	Document Review IUWASH Staff KIIs MFI KIIs SME KIIs	Document Review IUWASH Staff KIIs
b. Which groups are the prime users of the different CKM products?	Donor KIIs GoI KIIs	Donor KIIs GoI KIIs	Donor KIIs GoI KIIs	Donor KIIs GoI KIIs	Donor KIIs GoI KIIs
c. How has IUWASH 'marketed" the various CKM products?	Donor KIIs GoI KIIs	Donor KIIs GoI KIIs	Donor KIIs GoI KIIs	Donor KIIs GoI KIIs	Donor KIIs GoI KIIs
d. How and to what extend are the different stakeholder groups making use of the IUWASH CKM products and how could this use be further improved?	Donor KIIs GoI KIIs	Donor KIIs GoI KIIs	Donor KIIs GoI KIIs	Donor KIIs GoI KIIs	Donor KIIs GoI KIIs
Q2. How have IUWASH gender pilot activities affected IUWASH results and WASH benefits to men and women from the household to national government levels?					
a. Describe IUWASH gender policies, strategies and objectives	NA	NA	Document Review IUWASH KIIs	NA	NA
b. Which gender pilot activities have been undertaken by IUWASH?	NA	NA	IUWASH KIIs	NA	NA
c. How have these affected IUWASH results?	NA	NA	IUWASH KIIs Beneficiary FGDs LG KIIs	NA	NA
d. How have these affected WASH benefits to men and women? Are these benefits different in areas with gender pilots?	NA	NA	Beneficiary FGDs	NA	NA
e. Have any of the pilots been scaled up or replicated? Does the government intend to continue?	NA	NA	LG KIIs	NA	NA
Q3. How have the district and city governments, communities, and households in the different regions of Indonesia benefitted from the Behavior Change Communication (BCC) in WASH approach developed and implemented by IUWASH?					
a. What is IUWASH's BCC Strategy and Approach?	NA	NA	Document Review IUWASH Staff KII	NA	NA
b. How did it start and how did it change after the midterm review of the project?	NA	NA	IUWASH Staff KII	NA	NA
c. How has it been implemented?	NA	NA	IUWASH Staff KII	NA	NA
d. Who has benefitted from IUWASH BCC?	NA	NA	Beneficiary FGDs	NA	NA
e. To what extent has IUWASH BCC been effective and how and to what extent have different stakeholder groups making use of the IUWASH-BCC approach.	NA	NA	Beneficiary FGDs LG KIIs Donor KIIs	NA	NA
Q4. How has IUWASH's technical assistance improved the quality of the systems provided by these Government of Indonesia programs at the household level and how effective was the technical assistance in leveraging additional resources for WASH?					
a. What is meant exactly by IUWASH TA?	Document Review IUWASH Staff KIIs LG KIIs PDAM KIIs	Document Review IUWASH Staff KIIs LG KIIs UPTD KIIs		Document Review IUWASH Staff KIIs MFI KIIs	
b. To what extent has IUWASH TA improved the quality of WASH?	Document Review IUWASH Staff KIIs LG KIIs PDAM KIIs	Document Review IUWASH Staff KIIs LG KIIs UPTD KIIs		Document Review IUWASH Staff KIIs MFI KIIs	
c. To what extent has IUWASH TA been successful in leveraging additional resources from government, private sector and MFIs for WASH?				MFI KIIs LG KIIs	
d. To what extent has IUWASH's technical assistance to SMEs resulted in improved service quality?				MFI staff KIIs SME KIIs	

Evaluation Questions	Water utility performance improvement	Sanitation institution development	BCC & Gender	Microfinance & SME	Private Sector
Q5. What IUWASH approaches have been most successful in increasing WASH priorities to include budget allocation by IUWASH assisted local governments, especially in setting up and or improving the performance of WASH institutions?					
a. Which IUWASH approaches have been used for increasing priority for WASH by local governments, resulting in allocation of new budgets for WASH?	LG KIIs PDAM KIIs	LG KIIs PDAM KIIs		MFI staff KIIs SME KIIs	
b. Which IUWASH approaches have resulted in setting up or strengthening of WASH institutions within or by local governments?	LG KIIs PDAM KIIs	LG KIIs PDAM KIIs		MFI staff KIIs SME KIIs	

Key Questions on Water Utility Performance Improvement

For KIIs and FGD with PDAM/LG staff and IUWASH staff and with selected PDAM customers)

1. How does IUWASH select its target PDAMs and cities? Has there been involvement from Bappenas /MPWH and of other ministries or development partners in selecting PDAMs or cities?
2. How has the IUWASH technical assistance program at the PDAM level been designed and which parties have been involved? Which activities at PDAM level were part of the program? To what extent has the PDAM been involved in designing the program and did the program meet its needs?
3. Have IUWASH interventions contributed to improved operational or financial performance and enhanced customer relations or corporate governance?
4. Has IUWASH provided assistance in increasing PDAM coverage by e.g. a master meter program or in mobilizing financial resources for future investment? Has this support been effective and will the PDAM be able to continue these activities in the future.
5. How does IUWASH determine the performance of PDAM water supply service delivery?
    a. What was the baseline measurement of PDAM performance before IUWASH interventions started.
    b. Is there a significant difference in measuring the performance of PDAMs between IUWASH methodology and when applying the criteria prepared by BPPSPAM /MPWH? If there are differences, which components differ most?
6. Based on the IUWASH monitoring system, which component of PDAM performance has improved most as a result of IUWASH technical assistance and support?
    a. How did IUWASH interventions (technical assistance, training, assessments, etc.) result in performance improvements of PDAM's?
    b. Does the PDAM feel that its performance improved after IUWASH assistance and what type of IUWASH support was most effective.
7. Are there other programs similar to IUWASH that support PDAM's in improving their performance (for example, from MPWH, Bappenas or other development partners)?
    a. What is the difference between IUWASH programs and programs coming from other development partners?
8. After the IUWASH program has been completed, will the PDAM be able to continue without IUWASH support?
9. What IUWASH knowledge products are you aware of? How have they been used in the IUWASH program and later on by the PDAM itself?
    a. Are IUWASH knowledge products being used by similar programs managed by GOI or other development partners and how do they coordinate their support.
10. How big has the IUWASH contribution been in the achievement of national targets in water supply?
11. Has local government budget in the water sector increased as a result of IUWASH involvement?

a. For which activities and by how much?
b. Access to credit?
c. Other leveraged funds?

Key Questions on Sanitation Institution Development
For KIIs and FGD with LG staff and IUWASH staff and with selected households participating in/benefitting from LG programs

1. How has this LG been selected by IUWASH for assistance in the sanitation sector.
   a. Has there been involvement by Bappenas or MPWH or other ministries or development partners in selecting LG's for IUWASH assistance.
2. How are sanitation service levels in a city measured?
   a. Has there been a baseline measurement of sanitation service levels in the city prior to IUWASH intervention.
3. Which interventions have there been from IUWASH and how has the program been conceived? Has LG staff been involved in designing the interventions and in implementing the program?
4. Does IUWASH support cover the need for technical assistance in a comprehensive way?
5. Has IUWASH been able to make use of a City Sanitation Strategy (SSK) or a similar plan?
6. Which have been the key improvements and changes resulting from IUWASH interventions?
   a. How has the IUWASH support translated into increasing the number of households with access to improved sanitation?
   b. Has the focus been ion improved sanitation to individual households or to communal systems or improved sewerage. What have been the reasons for the selected approach.
7. Which are the institutions responsible for sanitation at the LG level? Have there been changes in the institutions since IUWASH support started?
   a. Has a UPTD been established? Has the necessary regulation been approved, What is the staffing. Is there an annual workplan and related budget? Have the tasks been clearly defined. Do staff have job descriptions? Has there been training for staff?
   b. If there is no UPTD, which LG unit and officials have the lead in the LG sanitation programs? Otherwise same questions as under a above.
8. Is there support for the sanitation program in the city from the highest management and political levels in the LG?
9. Has IUWASH support translated into increased allocations for sanitation within the LG budget?
10. Have IUWASH approaches and knowledge products been adopted by LG institutions and staff?
11. To what extent have SME's and Private Sector organizations been involved in the program?
12. After the IUWASH program has been completed/closed down, will the LG be able to continue without IUWASH support?

Key Questions regarding BCC and Gender Mainstreaming
For FGDs and KIIs with sanitation promoters and community members

You have been involved in some activities regarding sanitation and/or water supply improvement for some time.

- How do you feel about your involvement?
- Is there any change you experience/identify related to sanitation and hygiene after the sanitation and/or water supply program works in your community? The changes can be in the community, family or individual. Let's make a list of various changes you experienced, whether it's good or bad.
  List the changes they mentioned

- Which one do you think is the most important for the community? Let's give them score, 1 for not important, and 5 for very important.
- What makes you think … as important (or not important)?
- Among those changes, which one is the most important? Why do you think that? (probe: relevance, effectiveness)
- Could you tell us more about the change you experience/identify? Why do you think that change happened? (probe: process tracing -- parties involved and drove changes, how they did it, milestones; gender issues – participation, control, benefits)

If changes related to gender are not mentioned, ask:

- Did you ever hear about gender? What do you remember about it? Where did you hear about it? (probe: the activities)
- What do you think about it? Why do you think that?
- Do you think it has anything to do with sanitation and/or water supply? Please tell us more about it
- Does it affect you and/or people in the community in any way? How?

KII's with government officials

BCC

- Could you please describe about sanitation and/or water supply condition in your area? (probe: the main problem in sanitation and/or water supply)
- Could you explain about policies the local government, your office in particular, that are related to sanitation and/or water supply improvement effort? Could you tell us how those policies are implemented? (probe: institutions/organizations involved and their roles)

- Do you notice any change/improvement in the last five years regarding sanitation and/or water supply (including the effort to improve them)? What are they? What do you think drove the change/improvement? (probe: activities and institutions involved)
- *If community activities (triggering, promotion, demand creation) is not mentioned, ask:*
- Are you familiar with community activities regarding sanitation and/or water supply improvement? Could you tell us about it?
  - What approach or strategy the LG implement regarding to community activities related to sanitation and/or water supply improvement effort?
  - How is it implemented? Who are involved in it? What are their roles?
- *If IUWASH is not mentioned, ask specifically about IUWASH's roles and involvement in the effort to improve of sanitation and/or water supply, probe what they think about IUWASH and recommendation they have for IUWASH+*

Gender responsive policies/budget

- We heard that your kabupaten/kota issued/enacted gender responsive policies/budget.
  - Are you and your institution involved in the process?
  - Who initiated it?
  - What actually drove the LG to develop a gender responsive policy/budget?
- What are the products (policies, regulations, budget, etc) the LG has issued that are gender responsive?
  - Why did the LG decide to make them gender responsive (why those products)?
  - Could you explain about the process? (probe: challenges and opportunity, institutions/organizations involved and their roles. *If IUWASH is not mentioned, ask specifically about IUWASH*)
- How do those products relate to sanitation/water supply improvement?
  - Do you think they support the effort to improve sanitation and/or water supply? Why (or why not)?

- What factors in sanitation and/water supply do you see are affected by making those product gender responsive?
- Could you tell us more about it?

KIIs with IUWASH Staff from various components
Gender mainstreaming

- What do you think about mainstreaming gender in the program? Do you think that it is already done? Is gender integrated in your program?
- How does it affect your work as IUWASH's … (position)? How do you see it benefits you?

BCC

- Do you have --at any point of time during your assignment in IUWASH-- an experience of trying to create awareness, improve their knowledge, change certain people's attitude and/or behavior? How did you do it? Could you tell us more about it?
- What was the results? Do you consider it as successful? Why (or why not)?
- Do you consider yourself doing behavior change communication? Why (or why not)?
- Do you think you need to improve your skills in creating awareness, etc? What skills do you think you need?

Gender specialist

- I saw that gender mainstreaming, although it's one of the cross-cutting components, doesn't have any indicator listed in the PMP. Could you please explain why IUWASH implement "gender mainstreaming" in the program?
- What does "cross-cutting component" mean? What does "gender mainstreaming" actually mean in this program?
- Could you describe the approach/strategy/method in mainstreaming gender in the program? (probe: gender assessment, assumptions)
- How is it implemented? probe:
  - internal –capacity building, gender working group, gender in the working environment (ask also the implementation of DAI code of conduct);
  - piloting areas -- selection of piloting areas, activities, challenges, supporting factors, results;
  - check with gender equity indicators
- From the strategy developed, is there any variation in the implementation across areas? Or overtime? What happened? (probe: lessons learned)
- If not yet mentioned, ask: Which parts do you think is challenging in the implementation? Which parts do you think is easy to implement? What are the challenges?
- Any recommendations for the next program?

BCC specialist

- Could you please describe the BCC strategy of your program? (probe: formative research, other data, assumptions)
- How is it implemented? From the strategy developed, is there any variation in the implementation across areas? Or overtime? What happened? (probe: lessons learned)
- Which parts do you think is challenging in the implementation? Which parts do you think is easy to implement? What are the challenges? How did you deal with those challenges?
- How do you connect with other partners in BCC in sanitation? (probe: collaborators, activities)
  - Is there any BCC approach commonly used by various partners? Or any framework that becomes reference to various organizations that work in sanitation? Could you tell us about that?
  - What's IUWASH position regarding to that? (probe: shared tools, methods, activities)

    - Do you consider your network brings benefit to your work? Why (or why not)? If you think it brings benefits, what are they?
- Any recommendations for the next program?

Key Questions on Microfinance, SME development and Private Sector Engagement
For KIIs and FGD with LG officials, Staff of Financial Institutions, IUWASH Staff, SME staff

In-depth interview/FGD with MFIs and Private Sector SME

1. You have been providing services for water and sanitation for some time:
    - How were you introduced to water and sanitation/How were you selected? Is this service new to your institution/business? Why are you interested in implementing the sanitation and water financing?
    - How do you develop your water/sanitation product? Do you receive any assistance? If yes, from whom, what type of and content of the assistance? (explore: IUWASH involvement and role)
    - Any changes in you institution relate to implementation of this product? Please explain
    - How do you promote your sanitation financing product to community? (probe: are they reaching all segments of the community?)
        - Do you work with any other institution on this?
        - How and what promotional tools do you used to potential client/communities?
    - Who are your main clients (probe: income levels, willingness to pay, types of services they are most interested in)
    - How are client responses to the introduction? What are the major questions from clients on the information (i.e. priced of sanitation? Loan size? Interest rate?)?

2. Did you ever hear about BCC and gender? What do you remember about it? Where did you hear about it? (probe: the activities)
    - What do you think about it? Do you think it relate to introduction of sanitation product and financing in the community and/or to people?

3. Information on business model:
    - Who is the MFI client – a HH or SME and why? If potential to finance both, why not?
    - What is the model of engagement between the MFI, the sanitation contractor (SME) and the HH?
    - What do each player (client, MFI, and SME) think of the model engagement? Any feedback to the current model implemented?
    - What is the challenge for expansion: 1) understanding and reaching the market, 2) operational capacity of MFI (efficiency and capacity; 3) financing

4. Information on MFI's and SME product financing and capacity:
    - Tenor, Amount, Interest rate/profit sharing, collateral required.
    - What and how is the quality portfolio of the sanitation financing?
    - Any challenge to your current product?
    - For SMEs :
        - What is your capacity of production? How many people involve in your business?
        - How do you deliver sanitation products to households/customers? (Explore: gap or mismatch between the supply and demand for water or sanitation products (consumers' needs and preferences)? Assurance of capacity and quality of deliverance WSS product to households? Any assistance specific to these aspects from IUWASH?

5. Future expansion and sustainability:

- Will you continue to offer the products after IUWASH support is ended?
- How do you see the challenge extending sanitation financing product? What do you think the most risk to consider?
- Do you have specific and targeted plan for this sanitation for the coming year?
- What would you need most to achieve your target plan? i.e. market information, marketing tools, funding and etc.

Should the work of IUWASH continue what do you think can be improved?

KIIs with local and national government officials

1. Are you familiar with the microfinance component of IUWASH? What do you understand of their approach? How do you think it will support your target in WSS implementation? Explore for the importance and significance
2. Do you have any involvement in promoting microfinance for WSS financing? If yes, in what and how you promote your sanitation financing product to community?
3. Do you receive any assistance? If yes, from whom, what type of and content of the assistance?
4. How do you promote your sanitation financing product to the community?
5. Are there any new or improved regulations or approaches for beneficiaries as result of the IUWASH microfinance approach? If yes, has it make any direct impact or in-direct for community to access WSS services?
6. Should the work of IUWASH continue what do you think can be improved? With regards to poor communities what would be key factors to increase their access to WSS services?
7. Is there any other private sector engagement in supporting the WSS in your area? Explore also about the CSR forum. What do you think of private sector engagement in WSS? Explore for any contribution or impact to additional support or funding for WSS work

KIIs with IUWASH Microfinance team

1. How does the program select the area for MF component implementation? What is conditional or criteria used?
2. In reaching the targeted number of access to financing for HHs in water and sanitation services, does the program dispose the target number for each area selected? If yes, how?
3. The program has been working with financial institution from different legal form i.e. Commercial banks, rural banks, and cooperative:
    - How do you select institution to work with? Do you have criteria of selection? If yes, please explain
    - What is the basis of using different type of financial institution? How does the different scheme developed?
    - What is the major difference in implementations for each type of financial institution? Does it have an impact to the targeted performance?

4. What microfinance approaches have been most successful? Have the approaches taken changed throughout the project?

5. Do you incorporate BCC and Gender in the microfinance approach? If yes, how?

6. Does financial institution and/or SMEs incorporate the BCC and Gender in their business process? Explore the reason.

APPENDIX 4: LIST OF DOCUMENTS AND IUWASH REPORTS AND COMMUNICATION AND KNOWLEDGE PRODUCTS

Documents consulted by the Evaluation Team

Name Report	Date
Contract No AID-497-C-11 00001 IUWASH Program	March 2011
Contract No AID 497-C-11 00001 IUWASH Program Modification No 8	Sept 2013
Contract No AID 497-C-11 00001 IUWASH Program Modification No 12	
IUWASH Mid Term Evaluation Review	Feb 2014
IUWASH Audit Outbrief, USAID Regional Inspector General, Manila	2014
IUWASH Plus - Request for Proposal – Scope of Work	
Final Evaluation Report Urban Sanitation Development Program (USDP)	Jan 2015
JWRSS Java Water Security Atlas	May 2012
United Nations MDG Report 2015	2015
WBG - Water Investment Roadmap for Indonesia 2011-2014	Jan 2012
Kebjijakan dan Strategi Pencapaian Akses Universal Sanitasi Layak Pada Tahun 2019	Dec 2015
MPWH - Program 10 Juta Sambungan Rumah	Aug 2015
WSP - Review of Community Managed Decentralized Wastewater Systems in Indonesia	2013

List of IUWASH Communication and Knowledge Management Products

IUWASH PUBLICATIONS AND KNOWLEDGE MANAGEMENT OVERVIEW 2016								
PROJECT COMPONENTS	TYPE OF PUBLICATION					TITLE	CURRENT STATUS	
	T&A	Info sheet	Tech. Note	Report/Book	other		Update	Location
WATER SUPPLY General		English/Ind.				Water for the Poor	Jan '16	P:\ Drive & Website
		E/I				Water Supply in Indonesia	June '15	
WS 1 / PDAM Operational				I		PDAM Energy Efficiency Audits Guide Book	Feb '15	P:\ Drive & Web
		E/I				Energy Efficiency for Improving PDAM Performance	Feb '15	
	E/I					Tool & Approaches - PDAM Index	Sept '14	
WS 2 / PDAM Financial	E/I					Tool - Credit Worthiness Ladder for PDAM	Sept '14	P:\ Drive & Web
					I	Promotional Brochure - Billing & Accounting of PDAM Pematangsiantar city	Mar '15	P:\ Drive
WS 3 / PDAM Customer		E/I				Role of Customer Communications Forum in PDAM Bogor city	Sept '13	P:\ Drive & Web
WS 4 / Climate Change		E/I				Introduction Climate change Adaptation Activity	Aug '14	P/: Drive & web
		E/I				Activity Summary - Climate Change Adaptation Highlight	Sept '13	
		E/I				CCVA for Water Supply in Indonesia	Nov '15	
		E/I				Water Sources and Climate Change in Indonesia	Oct '15	
		E/I				Profile Program - Infiltration Ponds in Semarang district and Salatiga city	Mar '15	
				E/I		Climate Change Inception Report	Sept '12	
				E		CCVAAP Report of Pematang Siantar city	Aug '14	
				I		CCVAAP Report of Sibolga city	July '15	
				E/I		CCVAAP Report of Mojokerto city	July '14	
				I		CCVAAP Report of Probolinggo city and district	May '15	
				I		CCVAAP Report of Malang city and district	May '15	
				I		CCVAAP Report of Batu city	May '15	
				E/I		CCVAAP Report of Salatiga city	Mar '15	
				E		CCVAAP Report of Semarang district	Mar '15	
				I		CCVAAP Report of Batang district	July '15	
				I		CCVAAP Report of Serang district	Nov '15	P:\ Drive
				I		CCVAAP Report of Enrekang district	Jan '16	
				I		CCVAAP Report of Sidrap district	Jan '16	
				I		CCVAAP Report of Parepare city	Jan '16	
				I		CCVAAP Report of Pinrang district	Feb '16	
				I		CCVAAP Report of Bantaeng district	Feb '16	
				I		CCVAAP Report of Jeneponto district	Feb '16	
			E/I			Technical Note - Infiltration Ponds	Jan '16	P:\ Drive & Web
					I	Banners - Infiltration ponds program in Semarang, Salatiga and Malang	Mar '15	P:\ Drive
					E/I	Video - CCVAAP/Infiltration ponds program in North Sumatra	Jan '14	P:\ Drive, Web, Youtube
					E/I	Video - CCVAAP/Infiltration ponds program in Enrekang, South Sulawesi		
WS 5 / Microfinance				E		Microfinance Action Plan	May '14	P:\ Drive & Web
		E/I				Microfinance/Grant for Water Connection in Jomblang, Semarang city	Apr '14	
			E/I			Technical Note - Microfinance for Water Connection in Kudus district	Des '14	
					I	Promotional Brochure and Banner - PDAM of Klaten district	Apr '14	P:\ Drive
					I	Promotional Brochure and Banner - PDAM of Sukoharjo district	May '14	
					I	Promotional Brochure and Banner - PDAM of Langkat district	June '14	
					E/I	Video - Microfinance for Piped Water Connections in Mojokerto district	Dec '12	P:\, Web, Youtube
WS 6 / Master Meter		E/I				Master Meter program in Sidoarjo city, East Java province	Aug '14	P:\ Drive & Web
		E/I				Master Meter in Rajeg, Tangerang district, Banten province	Jan '13	
		E/I				Master Meter in Cilincing and Rawa Buaya, Northern Jakarta	July '15	
		E/I				Master Meter in Tanah Merah, Northern Jakarta	Feb '16	
		E/I				Master Meter in Surakarta city, Central Java province	May '14	
		E/I				Master Meter in Sibolga city, North Sumatra province	Sept '14	
			E/I			Technical Note - Master Meter	Aug '15	
	E/I					Tool & Approaches - Master Meter	Aug '15	
					I	Banner/Poster - Master Meter in Surabaya	Aug '15	P:\ Drive
WS 7 / Capital Investment			E/I			Technical Note - APBD Analysis and Advocacy	Sept '14	P:\ Drive & Web
WS 8 / Institutional		E/I				PDAM Supervisory Board/Dewan Pengawas	Dec '13	P:\ Drive & Web

IUWASH PUBLICATIONS AND KNOWLEDGE MANAGEMENT OVERVIEW 2016

PROJECT COMPONENTS	TYPE OF PUBLICATION					TITLE	CURRENT STATUS	
	T&A	Info sheet	Tech. Note	Report/Book	other		Update	Location
SANITATION General	E/I					Tool - Urban Sanitation Framework	Nov '14	P:\ Drive & Web
				E		BCC Action Plan	Sept '14	
				E/I		Urban Sanitation Promotion Guide Book	May '15	
					I	Standing banner - Urban Sanitation Framework	Nov '14	P:\ Drive
					I	Banner & Leaflet - Handwashing with soap (key times & how-to)	Nov '12	
					I	Poster - Fecal Oral (microbes) Transmission	Aug '14	
					E/I	Video - TV-style PSA on Individual & Commnunal Sanitation System	Mar '15	P:\, Web, Youtube
SAN 1 / Individual				I		SNI-standard Toilet Construction Handbook	Dec '15	P:\ Drive
		E/I				Program profile - Microfinance for sanitation/toilet in Tangerang district	Oct '15	P:\ Drive & Web
		E/I				Program profile - Microfinance for toilet in Bandung district	June '15	
		E/I				Program profile - Triggering on stop open defecation in Jeneponto	June '12	
				I		Toilet construction in Klaten district Lessons Learnt Book	May '15	
		E/I				First person - My own toilet, Jeneponto district	June '12	
					I	Leaflet - Toilet maintenance	July '15	
					E/I	Video - Microfinance for Toilet in Probolinggo district	Dec '12	P:\ Drive, Web, Youtube
					I	Video - Launching of Microfinance for Toilet in Bandung district (DAAI TV)	June '15	
					E/I	Video - SAN-1/ Toilet construction advocacy	Mar '15	
SAN 2 / Communal		E/I				Program profile - Communal sanitation in Margasana, Serang district	Mar '15	P:\ Drive & Web
		E/I				Prog. profile - Capacity building for KKP of communal san. in Surabaya city	Nov '15	
		E/I				Prog. profile - Communal san. system "Kampung Sanitasi" in Surakarta	June '14	
		E/I				Prog. profile - Community-based total sanitation/STBM in Probolinggo city	Jan '13	
		E/I				Program profile - IPAL Lenteng Agung, Southern Jakarta	Sept '14	
					E/I	Video - SAN-2/ Communal santitation system promotion & advocacy	Mar '15	P:\, Web, Youtube
SAN 3 / Sewerage		E/I				Program profile - City-scale Sewerage system in Medan, North Sumatra	Mar '14	P:\ Drive & Web
		E/I				Program Profile - Sewerage system in Karet Kuningan, Jakarta	Oct '15	
					I	Promo Brochure & Poster - PD PAL Jaya Jakarta Sewerage Connection	Sept '14	P:\ Drive
					I	Promotional Brochure - Sewerage household connection in Medan city	Mar '14	
		E/I				Program profile - Regular desludging Cart (Kedoteng) in Pademangan, Jakarta	April '13	P:\ Drive & Web
		E/I				Program profile - Regular desludging service in Surakarta city	Oct '15	
			E/I			Technical note - Regular Desludging Service/LLTT in Surakarta city	Nov '15	
					I	Banner - MIS to Support Regular Desludging Service in Surakarta city	Oct '15	P:\ Drive
					I	Promo Brochure, Banner, Poster & Sticker - PAL Jaya Jakarta Regular Desludging	Sept '14	
					E/I	Animation/Speed Drawing - Regular Desluding for DKI Jakarta	June '14	P:\ Drive, Web, Youtube
					E/I	Video - Launching of Regular Desludging Service/LLTT in Surakarta city	Oct '15	
SAN 5 / Institutional		E/I				Program profile - UPTD PAL of Bogor city	Jan '13	P:\ Drive & Web
					E/I	Banner & Leaflet - '4 Healthy 5 Perfect' Formula of Urban San. Management	Aug '15	P:\ Drive
					I	Poster - PD PAL Jaya DKI Jakarta (Sanitation for the Healthier Jakarta)	June '14	
CROSSCUTTING General		E/I				IUWASH Visioning Workshop for WASH sector	Des '13	P:\ Drive & Web
CC 1 / Policies								
CC 2 / APDB	E/I					Tool - LG WatSan Budget Analysis	Sept '14	P:\ Drive & Web
	E/I					Tool - WatSan APBD Index	Sept '14	
CC 3 / CEM					I	Banner & Sticker - Complain handling for Takalar district	June '14	P:\ Drive
		I				Prog. Profile - Website Devt' for PDAM of Purwakarta district to Support CEM	July '15	
CC 4 / Gender								
CC 5 / CSR		I				IUWASH Approach for CSR program	Dec '14	P:\ Drive & Web
		I				Program Profile - CSR progam in Kota Raja Dalam, Jayapura city	Feb '12	

IUWASH PUBLICATIONS AND KNOWLEDGE MANAGEMENT OVERVIEW 2016

PROJECT COMPONENTS	TYPE OF PUBLICATION					TITLE	CURRENT STATUS	
	T&A	Info sheet	Tech. Note	Report/Book	other		Update	Location
IUWASH General		E/I				IUWASH Profile & Summary of Achievement	Jan '16	P:\ Drive & Web
		E/I				IUWASH general/national infosheet	Sept '15	
		E/I				IUWASH North Sumatra Regional Profile	Jan '16	
		E/I				NS Regional Map	Jan '16	
		E/I				IUWASH SSEI Profile Infosheet	Dec '15	
		E/I				SSEI Regional Map	Dec '15	
		E/I				IUWASH East Java Profile Infosheet	Nov '15	
		E/I				EJ Regional Map	Nov '15	
		E/I				IUWASH Central Java Profile Infosheet	Mar '15	
		E/I				CJ Regional Map	Mar '15	
		E/I				IUWASH West Java-DKI Jakarta-Banten (WJDB) Profile Infosheet	May '15	
		E/I				WJDB Regional Map	May '15	
		E/I				Program profile - Jayapura	Oct '15	
		I				Program profile - Gebrak Pakumis, Tangerang district	Dec '11	
		I				Program profile - Semarang city	Apr '14	
		E/I				Program profile - Kudus district	Feb '12	
		E/I				Location profile - Undaan village, Kudus district	Feb '12	
		E/I				Location profile - Semanggi village, Surakarta city	May '14	
		E/I				Location profile - Probolinggo city	Jan '13	
		E/I				Location profile - Malang district	Nov '12	
		E/I				Location profile - Mojokerto district	Jan '13	
		E/I				Location profile - Margasana village, Serang district	Mar '15	
		E/I				Location profile - Sindangsari village, Bogor city	Dec '13	
		E/I				Location profile - Harjasari village, Bogor city	Nov '15	
		E/I				Location profile - Panyocokan, Bandung district	June '15	
		E/I				Location profile - Belawan, North Sumatra	Oct '14	
		E/I				Location profile - Jeneponto district	June '12	
		E/I				Location profile - Jombe village, Jeneponto district	June '12	
		E/I				Location profile - Empoang village, Jeneponto district	June '12	
		E/I				Location profile - Ardipura village, Jayapura city	Dec '13	
		E/I				IUWASH Newsletter (7 volumes)	Nov '11 - Mar '14	
				E		IUWASH QPR 1 (Mar-June 2011)		
				E		IUWASH QPR 2 (Jul-Sept 2011) & APR 1 (Mar-Sept 2011)		
				E		IUWASH QPR 3 (Oct-Dec 2011)		
				E		IUWASH QPR 4 (Jan-Mar 2012)		
				E		IUWASH QPR 5 (April-June 2012)		
				E		IUWASH QPR 6 (July - Sept 2012) & APR 2 (Oct 2011 - Sept 2012)		
				E		IUWASH QPR 7 (Oct-Dec 2012)		
				E		IUWASH QPR 8 (Jan-Mar 2013)		
				E		IUWASH QPR 9 (April - June 2013)		
				E		IUWASH QPR 10 (July - Sept 2013) & APR 3 (Oct 2012 - Sept 2013)		
				E		IUWASH QPR 11 (Oct-Dec 2013)		
				E		IUWASH QPR 12 (Jan-Mar 2014)		
				E		IUWASH QPR 13 (April - June 2014)		
				E		IUWASH QPR 14 (July - Sept 2014) & APR 4 (Oct 2013 - Sept 2014)		
				E		IUWASH QPR 15 (Oct - Dec 2014)		
				E		IUWASH QPR 16 (Jan - Mar 2015)		
				E		IUWASH QPR 17 (April - June 2015)		
				E		IUWASH QPR 18 (July - Sept 2015) & APR 5 (Oct 2014 - Sept 2015)		
				E		IUWASH QPR 19 (Oct-Dec 2015)		
				E		IUWASH QPR 20 (Jan-Mar 2016)	On-going	
				E		IUWASH Final Report		
				E		IUWASH Workplan PY 1 (2011)		
				E		IUWASH Workplan PY 2 (2012)		
				E		IUWASH Workplan PY 3 (2013)		
				E		IUWASH Workplan PY 4 (2014)		
				E		IUWASH Workplan PY 5 (2015)		
				E		IUWASH Workplan PY 6 (2016)		

IUWASH PUBLICATIONS AND KNOWLEDGE MANAGEMENT OVERVIEW 2016								
PROJECT COMPONENTS	TYPE OF PUBLICATION					TITLE	CURRENT STATUS	
	T&A	Info sheet	Tech. Note	Report/Book	other		Update	Location
IUWASH Publications Legacy 2016 (On-going)				I		CCVA Toolkit		P:\ Drive
				I		PDAM Energy Efficiency Lessons Learnt Booklet		
				I		PDAM Customer Communications Forum Booklet		
				E/I		Sanitation Toolkit		P:\ Drive
				E/I		Urban Sanitation Promotion Guide		
				I		SME Training Guide		
						Regular Desludging/LLTT Guide		
					I	Triggering Kit (Diagram F. Poster, headband, etc.)		
					I	Triggering Guide (4 leaflets)		
				I		Healthy Toilet Guide (Panduan Jamban Sehat, Hidup Lebih Sehat & Nyaman)		
					I	SAN-1 Flipchart		
					I	SAN-2 Flipchart		
				I		SAN-1 Pocket Book		
				I		SAN-2 Pocket Book		
				I		CSR Menu/Module		P:\ Drive
				I		CEM Lessons Learnt Book		
				I		Gender Lessons Learnt Book		
				I		IUWASH Signature Programs Booklet		P:\ Drive
				I		North Sumatra Regional Best Practices Booklet		
				I		SSEI Regional Best Practices Booklet		
				I		East Java Regional Best Practices Booklet		
				I		Central Java Regional Best Practices Booklet		
				E/I		WJDB Regional Best Practices Booklet		

APPENDIX 5: LIST OF ORGANIZATIONS AND PERSONS CONSULTED

Organisation	Name, function, Organization
[redacted]	[redacted]

Organisation	Name, function, Organization
[redacted]	

Organisation	Name, function, Organization
[redacted]	

Organisation	Name, function, Organization
[redacted]	

APPENDIX 6: OVERVIEW AND RESULTS OF IUWASH GENDER PILOT PROGRAM

Overview of IUWASH Gender Pilot Programs

Region	City	Program/ Partners	Gender Integration	Gender Integration in the Program Activity	Summary of Achievement
North Sumatra	Belawan, Medan	Individual sanitation facility through bio-filter septic tank (Public Work Office)	Involvement of Men and Women in program activities	Invite men and women in all activities (socialization, training, workshop and FGD)	• At least 595 beneficiaries agreed to construct the biofilter septic tank that follow the gender criteria • Challenge: no water supply available so it still weak on promotion of gender aspect in maintenance of individual sanitation system • Gender Focal Point at Public Work Office provide agreement in the tender document
			Gender responsive criteria of household selection	Development of commitment of household to follow the requirement of proper individual sanitation facility, including gender criteria	
			Gender responsive design of individual sanitation facility	Include gender aspect and requirement in the tender of contractor who will construct the sanitation system	
			Men and Women participation in maintenance of individual sanitation system	Include gender aspect especially in role and responsibility of men and women on maintenance of individual sanitation system	
West Java/DKI Jakarta/ Banten	Kab. Tangerang	Individual sanitation facility through microfinance for sanitation (KPP UMKM Syariah /Cooperative)	Involvement of Men and Women in program activities	Invite men and women in all activities (socialization, training, triggering, workshop, etc.)	• More than 1,000 beneficiaries agreed to construct the improved toilet with proper septic tank through microfinance program. The toilet follows the gender criteria • Mainly credit program obtained by women → women should discuss with their husband • Husband and wife should sign the credit agreement • Challenge: women headed household still difficult to access credit → need specific treatment
			Gender responsive criteria in obtaining credit for sanitation	Development of commitment of men and women to obtain microfinance program in sanitation n	
			Design of gender responsive toilet	Include gender aspect in development of design of improved toilet with proper septic tank	
			Construction of gender responsive toilet	Train contractor partner in understanding of gender aspect in construction of the toilet	
			Gender role in practicing improved hygiene behaviors and maintenance of the facility	Have gender session and in the training on improved hygiene behavior practices and maintenance of the facility for all program partners	

Region	City	Program/ Partners	Gender Integration	Gender Integration in the Program Activity	Summary of Achievement
Central Java	Surakarta	Communal sanitation facility	Involvement of Men and Women in program activities	Invite men and women in all activities (socialization, training, workshop, etc.)	• At least 25 HH now active in managing the IPAL Communal through flushing together of the toilet regularly • Revisit the CBO members to have more women → activated the CBO
			Gender role in practicing improved hygiene behaviors and maintenance of the facility	Conduct gender training for CBO of the communal sanitation system on improved hygiene behavior practices and maintenance of the facility for all program partners	
East Java	Surabaya	Master Meter Program (PDAM/NGO)	Criteria of beneficiaries of master meter system	Development of commitment of men and women to participate in the program activities	• At least 260 HH connected to 5 master meter system • 14% of members of CBO are women • No longer waiting water at night by women • Challenge: need awareness on utilizing water effectively and women's role in CBO is still in administrative aspect
			Involvement of Men and Women in program activities	Invite men and women in all activities (socialization, training, workshop, and CBO establishment)	
			Construction of master meter system	Make agreement on water meter installment at household level and installation of water system inside the house	
			Gender role in practicing improved hygiene behaviors	Have gender session and in the training on improved hygiene behavior practices	
South Sulawesi/ Eastern Indonesia	Maros	PDAM Customer Forum (PDAM)	Involvement of Men and Women in program activities	Increase women members in the PDAM Customer Forum Promote gender role in managing of water supply system and report the problem on PDAM services	• 60% of member of PDAM Customer Forum are women • Regular monitoring at household level conducted regularly • Less complaint send to PDAM • Active communication of PDAM customer to inform the problem on water services • Increase awareness of PDAM managers about gender

APPENDIX 7: STATUS AND FORECAST OF IUWASH INTERMEDIATE RESULT INDICATORS

Indicator	Total Target	Up-to Sep 2013 (MTR)	Up to 31 Dec 2015	Expected Achievement by the End of Project 30 June 2016
(a)	(b)	(c)	(d)	(d+f)
Component 1: Mobilize Demand for Improved Water and Sanitation Services (MD)				
MD 1: Households willing to pay for sanitation improvements	50,000	9,346	51,211 (102.42%)	61,303 (122.61%)
MD 2: Civil society groups and/or government cadres implementing program to mobilize improved access to safe drinking water & improved sanitation	100	42	239 (239%)	352 (352%)
MD 3: Civil society groups reporting on PDAM operations & performance	20	0	12 (60%)	24 (120%)
MD 4: Households increase adopting improved hygiene practices (*)	20	N/A	27.25% (136.25%)	27.25% (136.25%)
MD 5: No of Training-of-Trainers courses conducted for LG officials, staff & community leaders related to participatory planning activities, such as triggering exercises & behavior change program developed	100	N/A	25 (25%)	100 (100%)
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	30	43 (86%)	50 (100%)
IC-2: Number of PDAMs in default of old debts are assisted in restructuring their outstanding debts (**)	20	10	10 (50%)	10 (50%)
IC-3: Number of PDAMs with improved credit worthiness	20	2	28 (140%)	28 (140%)
IC-4: Number of local government institutions implementing necessary climate change adaptation measures, based on preliminary raw water vulnerability assessments	20	0	7 (35%)	20 (100%)
IC-5 : Number of local governments implementing integrated sanitation and hygiene interventions that reflect their citywide sanitation strategic plans	20	0	52 (260%)	52 (260%)
IC-6: Number of small and medium business providing affordable construction and sanitation facility management services	45	4	40 (88,88%)	59 (131.11%)
IC-7: Increased percentage (%) of poor residents in targeted communities who report greater satisfaction with water and sanitation services	20	0	81.34% (cumulative)	50.67% (253.35%)

(*) This achievement is a temporary achievement based on the definition of the previous PMP document (Second Revision). After the Midterm evaluation, the definition of this outcome is modified based on the definition of the recent PMP document (Third Revision). Currently, IUWASH is conducting new survey to comply with new definition stated in Third PMP document and will update this achievement after the new survey have been completed.

(**) This outcome will reach 100% achievement by including IUWASH significant support to the monitoring of the implementation of debt restructuring plan. As per definition stated in PMP, the measurement of this outcome includes development of debt restructuring plan and monitoring of implementation of debt restructuring plan.

Indicator	Total Target	Up-to Sep 13 (Up-to MTR)	Up-to Sep 15 (After MTR)	Expected Total Achievement by the End of Project
(a)	(b)	(c)	(d)	(d+f)
IC-8: Number of municipal sanitation management units established with supporting policies, budgets and personnel	10	N/A	5	16 (160%)
IC-9: Number of "Sustainable Urban Sanitation Framework" adopted by the GOI as a key part of national sanitation programming policy	1	N/A	0	1 (100%)
IC-10:__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	N/A	17 (17%)	160 (160%)
Component 3: Create an Enabling Environment Supporting Equitable Water and Sanitation Services (EE)				
EE.1: Number of participating Local Governments that put greater priority on safe drinking water and sanitation through supportive local policies and budget allocation increases	50	7	46 (92%)	50 (100%)
EE.2: Number of PDAMs or local government obtain access to long-term funding for water or sanitation investment plans	15	0	9 (60%)	15 (100%)
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	7.15%	12.01% (120.1%)	12.63% (126.3%)
EE.4.: Number of low income households accessing micro finance for household improvements in water and sanitation	20,000	5,356	21.039 (105.20%)	21,111 (105%)
EE.5.: Number of Local Governments adopt new or improved mechanisms for citizens to engage local government in water and sanitation	20	0	20 (100%)	21 (105%)
EE.6.: Number of new or improved regulation to facilitate access to capital financing in the water sector	1	N/A	0	1 (100%)
EE.7.: Number of central government officials exposed to alternative financing options in the water sector in the US or other applicable context	12	N/A	0	12 (100%)

APPENDIX 8: IUWASH – PERFORMANCE INDEX PDAMS 2012 - 2015

No	PDAM	Baseline	June 2013	Sep 2015	% Change
	North Sumatra Provinces				
1	Kota Medan	51,65	70,95	74,05	43,37
2	Kota Binjai	28,40	40,80	57,90	103,87
3	Kota Tanjungbalai	35,40	55,05	63,70	79,94
4	Kota Tebing Tinggi	26,90	46,10	50,65	88,29
5	Kota Pematang siantar	31,95	52,35	69,05	116,12
6	Kota Sibolga	24,90	34,45	58,75	135,94
7	Kab. Asahan	24,75	30,50	38,40	55,15
8	Kab. Labuhanbatu	42,60	45,60	56,10	31,69
9	Kab. Langkat	24,40	34,65	57,40	135,25
	Banten and West Java Provinces				
10	Kab. Tangerang	51,00	49,30	69,90	37,06
11	Kab. Serang	38,35	49,50	50,75	32,33
12	Kota Bogor	62,45	75,95	80,90	29,54
13	Kota Bekasi	42,45	47,25	59,90	41,11
14	Kab. Karawang	28,80	51,95	63,45	120,31
15	Kab. Lebak	38,25	34,25	44,35	15,95
16	Kab. Bandung	43,35	43,35	69,60	60,55
17	Kab. Purwakarta	46,35	43,85	63,60	37,22
18	Kab. Bekasi	47,05	51,55	64,45	36,98
	Central Java Provinces				
19	Kota Semarang	48,50	64,95	77,20	59,18
20	Kota Surakarta	51,45	63,80	75,00	45,77
21	Kab. Kudus	57,15	73,60	70,80	23,88
22	Kab. Kendal	41,65	58,15	66,85	60,50
23	Kab. Semarang	46,20	68,45	74,10	60,39
24	Kota Salatiga	50,50	59,35	77,70	53,86
25	Kab. Klaten	44,90	54,15	67,60	50,56
26	Kab. Sukoharjo	38,25	49,50	68,50	79,08
27	Kab. Rembang	37,65	49,25	62,90	67,07
28	Kab. Batang	36,95	45,20	68,80	86,20
	East Java Provinces				
29	Kab. Gresik	40,25	52,70	63,60	58,01
30	Kab. Lamongan	39,40	55,10	66,35	68,40
31	Kab. Sidoarjo	59,70	68,65	72,00	20,60
32	Kab. Mojokerto	32,90	64,45	64,10	94,83
33	Kota Probolinggo	41,05	58,60	59,05	43,85
34	Kab. Probolinggo	17,80	28,10	57,35	222,19
35	Kota Surabaya	60,30	67,10	74,70	23,88
36	Kota Batu	27,05	47,80	56,40	108,50
37	Kota Malang	68,10	68,40	77,50	13,80
38	Kab. Malang	47,20	52,70	78,95	67,27
39	Kota Mojokerto	16,30	18,30	54,15	232,21
40	Kab. Jombang	38,05	42,40	50,80	33,51
	South Sulawesi Provinces/Eastern Indonesia				
41	Kab. Enrekang	23,40	30,65	50,60	116,24
42	Kota Pare-Pare	30,60	49,55	70,10	129,08
43	Kab. Maros	24,15	37,20	48,00	98,76
44	Kab. Takalar	24,55	37,25	42,60	73,52
45	Kab. Sidrap	22,65	28,55	33,80	49,23
46	Kab. Pinrang	25,00	20,70	38,60	54,40
47	Kab. Jeneponto	15,70	23,20	24,60	56,69

48	Kab. Bantaeng	30,75	34,05	57,50	86,99
49	Kota Ambon	26,45	34,65	34,65	31,00
50	Jayapura	39,85	44,90	51,10	28,23

Note:

- The participating PDAMs supported by IUWASH in the second batch, starting in 2012 are highlighted in yellow
- The baseline of the first batch of PDAM partners dates from June 2011 data and for the second batch PDAMs is from December 2012.

APPENDIX 9: NATIONAL AND LOCAL GOVERNMENT BUDGETS FOR WATER AND SANITATION

National Government Budget for Water Supply and Sanitation (in Rp x billions)[25]

	DESCRIPTION	2010	2011	2012	2013	2014	2015	2016
1	**National Government Budget (APBN)**							
	a. Water supply	1,749	3,128	3,756	5,543	5,300	7,197	4,884
	b. Sanitation (Waste water, Drainage & Solid Waste)	1,356	2,305	2,784	3,150	2,900	3,441	4,137
2	**Special Allocation Funds (DAK)**							
	a. Water supply	357	420	502	610	n.a.	1,349	741
	b. Sanitation (Waste water, Drainage & Solid Waste)	357	420	464	510	n.a.	1,104	606

Terminology sanitation (according to Directorate Sanitation – DGCK – PUPR)

- Communal septic tank: less than 10 HH
- Communal waste water system: more than 10 HH, up to 1.000 HH
- Citywide waste water systems: more than 1.000 HH

[25] Source: Directorate General Cipta Karya, Ministry of Public Works and Housing

Annual Summary of Achievement of Local Government Priority to Support Watsan Sector (EE-1) - Local Government Budget

Status : September 2014

No	City	Total Local Government Budget/APBD BY Year (In Million IDR) (*)							Avg Budget 09-11 (**)	Avg Budget 12-15 (***)	Difference in %
		2009	2010	2011	2012	2013	2014	2015			
NORTH SUMATRA											
1	Kota Binjai	8,445	5,863	11,409	17,219	11,117	36,720	22,468	**8,572**	**21,881**	155%
2	Kota Medan	183,349	239,876	230,473	195,849	284,308	281,535	295,685	**217,899**	**264,344**	21%
3	Kota Pematang Siantar	5,378	8,294	9,975	31,332	23,057	10,835	7,779	**7,882**	**18,251**	132%
4	Kota Tanjung Balai	10,828	7,403	12,843	19,767	31,662	26,944	18,684	**10,358**	**24,264**	134%
5	Kota Tebing Tinggi	13,426	7,453	10,519	12,643	4,453	10,450	22,792	**10,466**	**12,585**	20%
6	Kabupaten Langkat	-	-	12,200	17,248	19,895	36,270	11,127	**14,724**	**22,430**	52%
7	Kabupaten Asahan	-	10,392	12,296	15,753	31,861	5,222	8,413	**12,814**	**15,166**	18%
8	Kabupaten Labuhan Batu	-	1,754	5,264	7,576	8,015	24,126	25,258	**4,864**	**19,133**	293%
9	Kota Sibolga	-	-	6,347	10,793	35,571	2,585	11,617	**8,570**	**16,591**	94%
WEST JAVA BANTEN, DKI											
10	Kota Bogor	31,615	67,075	71,135	44,787	62,474	58,718	70,298	**56,608**	**59,070**	4%
11	Kabupaten Karawang	23,571	25,656	20,807	14,303	16,436	28,200	70,224	**23,345**	**32,291**	38%
12	Kabupaten Tangerang	59	839	20,985	32,817	35,871	37,159	115,447	**7,294**	**55,323**	658%
13	Kota Bekasi	11,904	24,489	23,616	46,239	53,205	73,604	83,310	**20,003**	**64,090**	220%
14	Kabupaten Bekasi	30,031	14,506	14,139	14,136	24,013	36,691	39,274	**14,260**	**33,326**	134%
15	Kabupaten Bandung	-	10,202	17,652	17,529	20,220	34,181	30,806	**15,128**	**28,402**	88%
16	Kabupaten Purwakarta	-	8,492	12,335	11,312	18,370	23,460	17,916	**10,713**	**19,915**	86%
17	Kabupaten Serang	16,889	18,123	14,362	19,413	19,913	25,674	41,898	**16,458**	**26,724**	62%
18	Kabupaten Tangerang Selatan	-	7,488	40,754	43,408	54,121	46,963	59,008	**30,550**	**53,364**	75%
19	Kabupaten Lebak	-	1,784	3,627	4,574	5,706	21,529	19,496	**3,328**	**15,577**	368%
CENTRAL JAVA											
20	Kabupaten Kendal	7,905	13,215	1,330	5,582	6,124	14,403	20,018	**7,483**	**11,532**	54%
21	Kabupaten Kudus	11,477	1,951	600	3,552	13,501	26,521	31,284	**4,676**	**18,715**	300%
22	Kota Semarang	17,394	19,225	15,571	50,153	72,677	99,311	131,315	**17,397**	**88,364**	408%
23	Kabupaten Semarang	2,273	2,532	3,460	16,669	6,683	29,756	60,182	**2,755**	**28,322**	928%
24	Kota Solo	5,730	8,022	9,441	6,758	13,265	41,224	33,263	**7,731**	**23,628**	206%
25	Kabupaten Sukoharjo	6,569	5,250	7,632	9,714	10,417	34,964	67,299	**7,532**	**30,598**	306%
26	Kabupaten Klaten	10,803	8,682	11,175	21,979	17,791	24,720	25,663	**13,946**	**22,538**	62%
27	Kota Salatiga	12,388	11,373	6,518	14,920	15,444	15,728	21,229	**10,937**	**16,830**	54%
28	Kabupaten Rembang	4,723	2,585	3,380	3,239	5,424	14,998	29,342	**3,068**	**13,251**	332%
29	Kabupaten Batang	-	1,469	2,757	3,785	11,495	14,794	24,401	**2,670**	**13,619**	410%
EAST JAVA											
30	Kota Probolinggo	18,938	18,876	15,185	17,354	11,338	11,210	6,457	**17,667**	**11,590**	-34%
31	Kabupaten Gresik	33,071	19,485	18,507	26,025	70,920	85,042	91,767	**23,688**	**68,438**	189%
32	Kabupaten Lamongan	12,753	5,883	7,543	9,450	29,202	25,717	29,008	**8,726**	**23,344**	168%
33	Kabupaten Sidoarjo	29,071	15,483	12,490	18,125	53,105	48,848	55,123	**19,014**	**43,801**	130%
34	Kabupaten Mojokerto	11,368	3,723	7,607	3,108	10,018	20,327	10,121	**7,566**	**10,893**	44%
35	Kabupaten Probolinggo	-	5,388	7,133	15,132	24,306	32,095	46,405	**9,218**	**34,269**	272%
36	Kota Mojokerto	-	6,042	10,227	8,547	7,689	18,736	61,032	**8,272**	**29,152**	252%
37	Kabupaten Jombang	-	18,332	15,197	10,989	23,263	36,933	33,827	**14,839**	**31,341**	111%
38	Kabupaten Malang	-	20,849	10,686	29,640	21,303	49,164	75,998	**20,392**	**48,822**	139%
39	Kota Batu	-	15,731	17,689	8,870	11,260	18,430	42,078	**14,096**	**23,923**	70%
40	Kota Malang	-	39,417	18,402	55,744	100,775	70,338	57,217	**37,855**	**76,110**	101%
South Sulawesi/Eastern Indonesia											
41	Kota Enrekang	10,390	28,116	5,229	18,723	10,822	16,336	13,258	**14,578**	**14,785**	1%
42	Kota Makassar	7,086	12,972	14,579	46,434	83,652	130,351	98,510	**11,546**	**89,737**	677%
43	Kota Jeneponto	4,628	4,918	8,816	2,539	9,938	22,147	24,003	**6,121**	**14,657**	139%
44	Kota Maros	8,465	1,472	3,268	6,109	25,529	27,421	21,631	**4,401**	**20,172**	358%
45	Kota Pare Pare	8,220	7,018	8,465	6,421	11,500	19,886	16,906	**7,901**	**13,678**	73%
46	Kabupaten Takalar	1,745	1,694	11,433	4,012	14,481	8,529	10,701	**4,957**	**9,431**	90%
47	Kota Jayapura	3,818	1,968	6,464	4,180	14,334	17,086	14,671	**4,083**	**12,568**	208%
48	Kota Ambon	6,583	25,928	20,820	10,599	19,571	26,763	10,474	**19,116**	**18,936**	-1%
49	Kabupaten Bantaeng	16,663	2,101	5,959	2,491	7,500	13,865	19,494	**3,517**	**13,620**	287%
50	Kabupaten Pinrang	11,182	10,278	15,473	12,791	13,963	13,720	19,432	**12,847**	**15,705**	22%
51	Kabupaten Sidrap	1,518	1,655	5,407	2,360	8,987	9,093	17,913	**3,141**	**11,998**	282%
Note									845,572	1,707,093	102%

(*) The total amuont of LG APBD only for the amount of APBD funding for watsan related program implemented by LG institutions.

(**) The baseline figures are taken from last 3 years (2009, 2010 and 2011 for first batch of cities received technical assistance from IUWASH and cities, in purple highlight and 2010, 2011, 2012 for second batch of cities received technica assistance from IUWASH, in blue highlight) of APBD budget to support the

(***) The endline figures are taken from the average of total amount of APBD Watsan sector of assisted LG during the period of IUWASH technical assistance. This year will be the final year of APBD monitoring. There are two cities shows no increased of APBD funding and IUWASH will continue to monitor and collect more detailed infomation just in case if both cities have same status at the end of IUWASH program