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INDONESIA URBAN WATER, SANITATION AND HYGIENE (IUWASH) PROJECT

MID-TERM EVALUATION REVIEW
FINAL REPORT

FEBRUARY 2014

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EXECUTIVE SUMMARY

At the mid-point of the project, IUWASH is now well advanced towards meeting its objectives. Its contributions are much appreciated by central government, not only for its support to the water and sanitation sectors in respect of its own statement of work, but also because of its leverage of other GOI and donor investments and technical assistance, particularly so in respect of the evolving sanitation sector. This is due to its coverage of more than 50 local governments and PDAMs in five culturally, socially and physically diverse geographic regions, the extent of which is almost certainly unique in the area of hands-on technical assistance in Indonesia. Field visits demonstrated strong buy-in by the local governments, as exemplified by the presence of the most senior officials at meetings. PDAM managing directors in North Sumatra delayed their departures for a national water supply convention in order to meet the evaluation team. Furthermore, when asked if additional TA would be welcomed, local governments and PDAMs had lists of further sector activities already prepared for discussion with the team.

At present, IUWASH is confident of reaching and exceeding nearly all its targets. This suggests that the overall development hypotheses of the project are still valid, as are most of the major assumptions on which the project design was based. The evaluation team considers that the three project components of demand, capacity and the enabling environment are mutually reinforcing and that outcomes targeted in each are linked, based on comments from stakeholders including the National Development Planning Ministry (BAPPENAS) and the World Bank. Phasing of these components, however, is not linear, with the enabling environment of institutional reform and investment being especially important to facilitate the development of the other two components. The Mid-Term Evaluation Review (MTER) team examined the IUWASH methodology for the attribution of results in terms of progress towards achieving contracted targets. This was found to be reasonable, with results reported in considerable detail and, because of the detail and precision with which the outputs are recorded, capable of being independently audited.

Three potentially problematic targets are those of (i) IC 6: Small and medium-sized businesses (SMEs) providing affordable construction and sanitation facility management services (end-of-project target: 30 SMEs), (ii) EE 4: Low-income households accessing micro-finance for improvements in water and sanitation (end-of-project target: 40,000 households), and (iii) EE 2: PDAMs and/or LGs obtaining access to long-term funding for water and/or sanitation investment plans (end-of project target: 15 PDAMs.

The team considers that IUWASH has concentrated too much of its efforts in trying to develop new businesses, instead of investigating the possibilities of getting established companies to expand or modify their product lines to meet domestic demand in the water and sanitation sectors. In the case of the micro-finance activity, it is clear that the original premise behind setting the target is no longer valid. As for access to long-term investment finance for water supply through *Perpres* No 29/2009, there are bureaucratic obstacles at the Ministry of Finance (MOF) which have severely delayed the administrative processing of loans whose feasibility has been appraised and for which approval has already been given. It is unlikely that the framework for making available to finance creditworthy PDAMs through commercial banks can survive in its present form, leaving public sector water supply yet again without an efficient and sustainable source of long-term funding.

Consequently, the team recommends that the SME target should remain unchanged, whilst the micro-credit target should be dropped, since it is one of a series of tools for assisting low-income households access improved water supply and sanitation. However, micro-credit should remain as a component, with the numbers of connections made through this medium being added to the higher

level overall targets for water supply and sanitation new connections or installations. With regard to the long-term finance target for water supply, the team considers that IUWASH has set the bar too high for itself in terms of the point at which success can be claimed; this should now be changed to the point when loan approval is given by the GOI co-ordinating committee, with the numerical target being unchanged.

The team suggests that all other targets should remain as they are. Although the USAID Country Strategy for 2009-14 emphasises the need for technical assistance to focus on access for safe water and improved sanitation provision for the urban poor, this group is not referred to in any of the targets, although IUWASH does, in fact, concentrate its activities on low-income households in a qualitative sense. A definition of "urban poor" is required to enable IUWASH to track quantitatively the extent to which the USAID objective is being reached. In the meantime, the team has provided a pro tempore solution to do this.

Progress towards improving performance in the water supply sector is developing very satisfactorily across the board, pushing off from the experience platform built by the Contractor and many of the staff in the previous USAID ESP activity. Improvements in PDAM internal management and good governance have been particularly impressive, especially in the Java provinces. IUWASH has developed two very useful performance tools for water supply. The first is the PDAM performance index which is a methodology for justifying progress towards water supply targets by tracking a series of technical, financial, management and governance performance indicators. In the opinion of the team, this measurement tool is considerably superior to the present model used by GOI to audit PDAM performance, and should be promoted to GOI as such. It could also be usefully taken up by USAID, with appropriate modifications, for use as a standard in its technical assistance to other countries. The second is a PDAM creditworthiness module which will be validated by a credit rating agency in early 2014. The team considers that creditworthiness should be the benchmark by which PDAMs should be judged as being ready to exit the USAID TA programme.

In the sanitation sector, IUWASH has provided useful services in supporting the development of decentralised communal wastewater systems by leveraging existing donor and GOI-funded activities, in particular a GOI and donor-acknowledged contribution to the National Sanitation Acceleration Plan (PPSP). However, with the issue of Contract Modification No 8, the project now faces the much more formidable challenge of assisting national and local governments to embed the sanitation sector as an efficient urban infrastructure service delivery through the necessary regulatory, institutional strengthening and budget processes. Given the characteristics of local governments in Indonesia, in particular their resistance to change and risk aversion, the difficulties and time required to implement reform should not be underestimated. 2014 will therefore be a critical year for IUWASH to play an important role in changing the focus of development of the sanitation sector from planning to implementation. The report provides a road map as to how this might be achieved.

The team believes that there are three crucial aspects to providing sustainability in the sector:

- The first is to ensure that the head of local government and the DPRD commission for infrastructure understand that sanitation is not simply a household issue but also a local government responsibility. The local government has to take ownership of the sector at a senior level so that sanitation funding is provided in the RPJMD and in the annual APBDs. IUWASH needs to obtain good access to decision-makers. It has succeeded in doing so only on a limited basis to date.

- The second is to make sure that all sanitation management and operation is concentrated under one agency, instead of the fragmentation of responsibility which is such a feature of local government services. Where existing arrangements under the PDAM, mainly in a very limited

number of large cities, obtain, these should be left as they are. In other local governments, responsibility should be vested in a technical implementation unit (UPTD).

- The third is to make local government aware of the linkages between clean water, improved sanitation, health and education, with water availability being an indispensable pre-requisite for improved sanitation. Medium and short-term development plans for sanitation should be developed on this basis and budgets for all agencies co-ordinated so that linked objectives are clear and achievable.

Since individual household systems will continue to be the principal means of wastewater disposal in the foreseeable future, safe environmental operation and maintenance of these installations should be the principal focus of the UPTD's tasks. Proper construction and inspection of septic tanks, regular desludging and safe environmental disposal of sludge, mandated and managed by local government with the support of licensed private sector operators, must be regulated and provided with appropriate oversight and enforceable sanctions.

Local governments vary in size and stage of institutional and infrastructure technical development and capacity. What works in one local government may not work in another or may require some degree of modification. Nevertheless, it is very important that experiences are shared between the IUWASH regional offices. The need for improved communication in this regard is pointed out in the report. Stakeholders should not be overly optimistic in terms of achievement in the sanitation sector by the end of the project. IUWASH will have done well to have convinced local governments of the need for high-level oversight and coordination of the sanitation sector, to have reached its UPTD formation target and to have made some progress in UPTD capacity-building by March 2016.

The team found that there was a lack of strong theory of behaviour change articulated in project documents and activities in order to guide hygiene interventions for the three key behaviours that IUWASH is supporting, even though the behaviour change communication regional team members have clearly been very active in training sanitarians and other stakeholders in training of trainers to improve hygiene (amongst other things). There are also examples of co-ordination lapses at regional team level, particular in synchronising behaviour change communication (BCC) with infrastructure implementation.

A sound BCC strategy should include awareness-building, sharing of knowledge, continuous information provision, promotion of new behaviour patterns, and creation of an appropriate enabling environment. The role of IUWASH should include support for all these elements, not just a focus on behaviour triggering which only addresses the first two elements of awareness building and knowledge sharing. BCC is considered to be an indispensable element for expanding access to safe water supply and improved sanitation. Consequently, national and local governments need to become more engaged in providing guidance to the community, not only through health agencies but also by including instruction in school curricula.

Some 40% of local governments and PDAMs being assisted under IUWASH are cities, with more than 50% of these cities located in Java, even though only 92 (18%) of 506 local governments in Indonesia are *kota*. All the evidence, including that from field visits, suggests that it is the urbanised regions outside Java which are most in need of development assistance, especially in capacity-building and good governance through institutional development. Clearly, if quantitative outputs continue to be the focus of USAID's valuations, regional imbalances in the water and sanitation sectors will only become more pronounced. Furthermore, outputs are not always synonymous with outcomes. Field visits and discussions with IUWASH staff uncovered several instances where failure to distinguish between the two terms may have distorted the implications of the original project design components.

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GLOSSARY OF ABBREVIATIONS AND 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)
AO	Assistance Objective
APBD	*Anggaran Pendapatan dan Belanja Daerah* (Local Government Budget)
APBN	*Anggaran Pendapatan dan Belanja Nasional* (National Government Budget)
Bangda	Directorate General of Regional Development at MOHA
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)
BLU-D	*Badan Layanan Umum – Daerah* (Local Government Public Service Agency)
BPKP	*Badan Pengawasan Keuangan dan Pembangunan* (Finance and Development Supervisory Agency)
BPMD	*Badan Pemberdayaan Masyarakat dan Desa* (Agency for Community and Village Empowerment)
BPMK	*Badan Pemberdayaan Masyarakat dan Keluarga* (Agency for Community and Family Empowerment)
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
CDS	Country Development Strategy
Cipta Karya	Directorate General of Human Settlements at MPW
CSG	Civil Society Group
DAK	*Dana Alokasi Khusus* (Special Allocation Fund)
DAU	*Dana Alokasi Umum* (General Allocation Fund)
DBH	*Dana Bagi Hasi* (Royalties Fund)
DPR	*Dewan Perwakilan Rakyat* (National Government Legislature)
DPRD	*Dewan Perwakilan Rakyat Daerah* (Local Government Legislature)
EE	Enabling Environment
EHRA	Environmental Health Risk Assessment
ESP	Environmental Services Programme (USAID)
ESQ	Evaluation Subsidiary Question
FY	Financial Year
GIS	Geographic Information System
GOI	Government of Indonesia
HIPPAMS	*Asosiasi Himpurnan Penduduk Pengguna Air Minum* (Association for Encouraging People to Use Potable Water)
HR	High Level Result
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)
LEQ	Lead evaluation question
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
MOC	Ministry of Cooperatives

MOF	Ministry of Finance
MOH	Ministry of Health
MOHA	Ministry of Home Affairs
MPW	Ministry of Public Works
MSS	Minimum Service Standards
MTER	Mid-Term Evaluation Report
NAWASIS	National Water and Sanitation Information System
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)
PBB	*Pajak Bumi dan Bangunan* (Land & Buildings Tax)
PDAM	*Perusahaan Daerah Air Minum* (Local Government Drinking Water Enterprise)
PD-PAL	*Perusahaan Daerah Pengelolaan Air Limbah* (Local Government Wastewater Management Enterprise)
Pefindo	*Pemeringkat Efek Indonesia* (an Indonesian credit rating agency)
Perbup	*Peraturan Bupati* (Regent's Decree)
Perda	*Peraturan Daerah* (Local Government Decree)
Perwali	*Peraturan Walikota* (Mayoral Decree)
Perpres	*Peraturan Presiden* (Presidential Decree)
PIP	*Pemerintah Investasi Pusat* (Government Investment Agency)
PMP	Project Monitoring Plan
Pokja	*Kelompok Kerja* (Work Group)
Posyandu	*Pos Pelayanan Terpadu* (Integrated Maternal Health Service Unit)
PP	*Peraturan Pemerintah* (National Government Decree)
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)
sAIIG	Australia-Indonesia Infrastructure Grants for Municipal Sanitation Programme
Sanimas	*Sanitasi Berbasis Masyarakat* (Community-Based Sanitation)
SEQ	Supplementary evaluation question
SK	*Surat keputusan* (head of local government decision letter)
SKPD	*Satuan Kerja Perangkat Daerah* (Local Government Work Unit)
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
TOR	Terms of Reference
TOT	Training of Trainers
Tupoksi	*Tugas, Pokok, Fungsi* (Tasks Responsibilities, Functions)
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
WSP	Water and Sanitation Programme (World Bank)
YLHS	*Yayasan Lingkungan Hidup Seloliman* (Environmental Foundation)

1. INTRODUCTION

1.1 SCOPE OF THE IUWASH PROJECT

IUWASH is a five-year USAID-funded programme whose core objective is a significant increase of access to safe water supply and improved sanitation[1] in Indonesia's urban areas, with a particular focus on facilitating better access to these services for the urban poor. This core objective is defined by the following four high-level targets[2]: (i) access of additional 2,000,000 people in urban areas to safe water supply; (ii) access of additional 250,000 people in urban areas to improved sanitation facilities; (iii) the unit cost of safe water paid by the poor in targeted communities to decrease by at least 20 per cent, and (iv) 75,000 additional people to be trained in IUWASH activities.

Three main technical components are defined as the means towards achieving the above targets: (i) demand mobilisation, (ii) improvement and expansion of capacity and (iii) strengthening the policy and financial enabling environments.

The programme currently covers a total of 52 water utilities (PDAMs), of which 19 are in cities (*kota*) 31 in regencies (*kabupaten*, one is regional[3] and one provinical[4], plus sanitation in 54 local governments, of which 21 in *kota* and 33 *kabupaten*, These are located in five IUWASH regions: Banten/West Java, Central Java, East Java, North Sumatra and Eastern Indonesia.

1.2 OBJECTIVES OF THE MID-TERM EVALUATION REVIEW (MTER)

The objectives of the review itself are two: (i) a determination of whether the IUWASH contractor is meeting the expected results and outcomes agreed to in the Project Monitoring Plan (PMP) and (ii) an estimate of the extent to which the development hypothesis is valid. The Statement of Work[5] (SOW) asks three lead evaluation questions (LEQs) in terms of finding out whether these objectives are being met, to each of which a series of supplementary questions (SEQs) is appended. Findings and, where appropriate, recommendations for mid-term correction are provided in the three sections following this first section.

A further SOW requirement is to provide USAID with proposals for future investment in the water supply and sanitation sectors. These are contained in the last section of this report. It is reserved for USAID review only.

1.3 METHODOLOGY

The MTER Team[6] has followed the methodology set out in the SOW. The first days were spent in desk research of project documents[7], particularly the IUWASH latest quarterly and annual reports

[1] The Government of Indonesia's definition of the sanitation sector includes the wastewater, solid waste and tertiary drainage sub-sectors; for USAID and the international donor community generally, it refers to wastewater only

[2] The high-level targets quoted are inclusive of Contract Modification No 8 to the IUWASH contract

[3] Kabupaten/Kota Jayapura

[4] PDAM Tirtanadi, based in Medan and owned by the Provincial Government of North Sumatra

[5] Ref Appendix 1

[6] The composition of the five members of the MTER Team (three independent consultants and two USAID representatives) is listed in Appendix 2

and the PMP for Year 4 to September 2014, and discussions with IUWASH staff. Meetings were then held with key central government stakeholders in Jakarta, including BAPPENAS.

Subsequently, field trips were undertaken to a total of 19 participating local governments and/or their PDAMs[8], representing more than one-third of the total IUWASH project locations. These consisted of meetings with concerned local government officials and PDAM staff to ascertain and evaluate their responses to the LEQs and SEQs in the SOW, as well as site visits to obtain the views of USAID grant recipients and investment beneficiaries. The entire team[9] visited locations in Banten Province and then divided, as foreseen in the SOW. One team travelled to South Sulawesi Province, whilst the other went to Central and East Java Provinces. Following an initial presentation to the USAID Indonesia office and IUWASH project office staff prior to the departure of the USAID MTER members, a final field mission was made to North Sumatra Province. In addition, meetings were held with the IUWASH regional teams at the beginning and end of each field visit.

Consequently, all five IUWASH regions were visited. Kota Ambon and the two Jayapura local governments in Eastern Indonesia were omitted because of time and distance constraints. Most team days devoted to field visits were spent in South Sulawesi and North Provinces, based on the assumption that these would be the least developed IUWASH regions, with lower levels of governance and greater institutional capacity-building needs. This assumption proved to be correct. It might have been more instructive, in terms of designing follow-on activities for future USAID engagement in the water supply and sanitation sectors in Indonesia, to have included more *kabupaten* than *kota* governments across the regions in the field visits, since these usually have greater needs; however, logistically, it was not possible to do so.

A draft MTER report was provided to USAID in mid-December 2013 and a presentation made on 18 December. USAID comments were received prior to New Year and responded to in a draft final report, which took into account observations made at subsequent meetings with IUWASH head office staff. This draft final report has subsequently been accepted by USAID and is now presented as a formal final report.

[7] Appendix 3 provides a list of documents consulted

[8] Lists of locations visited, persons met and their affiliations is in Appendices 4 and 5

2. EVALUATION QUESTION NO 1

2.1 LEAD EVALUATION QUESTION

What are the major IUWASH accomplishments and weaknesses to date and what implementation changes should be made in response?

Strengths/Accomplishments to Date

In the eyes of the Government of Indonesia (GOI) and international donor partners, IUWASH is making a decisive and positive contribution to the water supply and sanitation sectors. In achieving its mid-term performance level, the project has accumulated a substantial spread of access to and buy-in by local governments and their PDAMs in IUWASH five regional areas with significant geographical, cultural and social differences. These access factors have also enabled effective leverage of other GOI and donor investments and technical assistance, particularly in the emerging sanitation sector where the value of IUWASH assistance to increase the access of households to improved sanitation and to begin the implementation of sector institutional arrangements has been acknowledged by the national Planning Development Agency (BAPPENAs) and the National Sanitation Acceleration Programme (PPSP).

Field visits have confirmed excellent rapport with PDAMs, partly based on the continuity of some of the IUWASH personnel who had been involved in the previous USAID Environmental Services Programme (ESP). Positive accomplishments in PDAMs, in terms of assistance with debt restructuring arrangements, tariff adjustments, business plan and feasibility study preparation, technical improvements, internal management and governance advocacy, and improving relationships and understanding between PDAMs and their local government owners, and between PDAMs and their customers, have already materialised. A comprehensive and unique PDAM performance index has been developed which not only records a justification of achievements to date but also presents a moving picture of PDAM progress towards sustainability. USAID might consider using this index as the basis for measuring performance by water supply utilities in other countries where it is engaged in providing technical assistance.

Within a sanitation policy framework of triggering behaviour change, establishment of sanitation institutional management units and regulation and enforcement at local government level, IUWASH has developed four signature programmes, namely those of demand creation for individual household and communal off-site systems, promotion of centralised sewerage systems and organization of urban sludge management[10]. A strong presence at the community level has been provided for the promotion of environmental health by supporting communal decentralised off-site systems through preparation and training of potential beneficiary households.

Through the medium of grantees, IUWASH has managed the implementation of USAID funds which have been selectively targeted at communal hygiene facilities and sanitation systems, master meter programmes, and construction of small reservoirs and infiltration ponds. Visits were made to sample sites to evaluate quality of implementation and community management, as well as to gauge the appreciation of beneficiaries which was considerable. NGO grantees have also been selected for capacity building and micro-credit.

[10] The conceptual framework for this is re-produced in Appendix 6

Weaknesses/Lack of Accomplishments to Date

There has been more limited progress in improving the enabling environment in terms of establishing comprehensive institutional arrangements at local government level for management and operation of the sanitation sector, although this has been mainly due to inertia and under-performance on the part of local governments and their lack of familiarity with the sector. Institutional arrangements for sanitation are therefore still weak and will require considerable strengthening. Some local governments do not even have a sanitation unit, equipped with formal tasks and duties as yet. In others, the unit is little more than a box with a label in the local government organization structure. The recent signing of Contract Modification No 8 will address this weakness.

A related issue appears to be the lack of access to and an absence of sanitation mentoring aimed at senior decision-makers in local governments. This is essential if local governments are ever to claim ownership of the sector, with an established organization equipped with concomitant accountability and good governance to facilitate improved sanitation service deliveries.

Inter-relationships between the water supply, sanitation and health sectors are often weak, especially in *kabupaten* local governments; they should be developed and strengthened. It is not yet clear how the *pokja* will develop during the future implementation of PPSP, now that most of the city sanitation strategies (SSK) have been completed, and what will be the relationship between the *pokja* and the local government technical implementation units (UPTD) for sanitation which are scheduled to be established. Recommendations are provided in this report which are intended to remedy this issue. There is a need for recognition in local governments that the availability of clean water is a pre-requisite for improved hygiene practices and that the PDAM must be involved in the process of making it available, instead of being kept at a distance from other related local government service delivery agencies. The importance of the role of the local government health department and the need for appropriate funding of sanitarians should be recognised. For instance, in the course of the field visits, it was noted that health departments were frequently absent from local government inter-sector meetings with the team, or were inadequately represented.

The MTER team found that there was a lack of a strong theory of behaviour change articulated in project documents or activities to guide the hygiene interventions for the three key behaviours that IUWASH is supporting, although the behaviour change communication (BCC) regional team members have clearly been very active in training sanitarians and other stakeholders in training of trainers (TOT) to improve hygiene (amongst other things). There are also examples of co-ordination lapses at regional team level, particular in synchronising BCC with infrastructure implementation.

Many local governments appear to be still wedded to the concept that the development of urban service deliveries begins with the construction of central government-funded infrastructure, rather than the essential condition precedent for sound policies, clear regulations, institutional arrangements and prior socialisation with the community. At field visit meetings, some local governments[11] did acknowledge the need for change and the efforts of IUWASH mentoring to embed this change.

However, knowledge derived from progress by IUWASH in some local governments does not seem to have been transferred consistently through the responsible regional office via the IUWASH head office to other regional offices. Success stories such as the customer focus group in Kabupaten Sidoarjo and progress towards the establishment of sanitation UPTDs at local governments in Banten Province and in Kota Makassar should be disseminated in other IUWASH areas, as well as at national level. IUWASH is aware of this communications issue and will address it through a specific

[11] e.g. Kabupatens Tangerang and Sidoarjo, Kota Tebing Tinggi

agenda item at regular progress meetings of regional team leaders in Jakarta and periodic reporting. Whilst improving communications in this matter, IUWASH will take care to avoid simple replication of a successful outcome in a particular area and transfer to another, by ensuring that regional differences are taken into account and adjustments made accordingly.

It is noted that most of these communications problems are concerned with the sanitation sector, whose future performance has recently been strengthened by contract amendment. In fact, in retrospect, to describe many of the issues raised above which relate to sanitation as weaknesses or lack of accomplishments on the part of the Contractor is misleading. Progress in the sanitation sector is slow because it has been neglected for years by both central and local governments and its development has to start from very basic levels. Reluctance to change and risk aversion at the local government level are also inhibiting factors to improvement.

2.2 SUPPLEMENTARY EVALUATION QUESTIONS TO LEQ 1 AND RESPONSES

SEQ 1a. Does the project have a clear evidence-based behaviour change theory of change and/or approach? What are the barriers to including behaviour change programming into the sanitation strategic action plan and sanitation activities? What has made it successful in some areas?

Findings and Recommendations

The team concluded that IUWASH does not yet have a sufficiently strong strategy for Behaviour Change Communication (BCC), starting with an unclear use of the term "BCC". Under IUWASH, both hygiene behaviour change and creating demand for household adoption of improved urban sanitation are included in their BCC component. These require different government or private sector counterparts which have not been clearly identified and targeted. The BCC target (HR 2) was originally set as an infrastructure measurement of 200,000 improved sanitation facilities[12]. However, IUWASH is permitted to leverage off other sanitation projects[13] being implemented in its project local government areas and claim these as counting towards its targets; consequently, the actual number of improved sanitation facilities which can be attributed directly to BCC is not known, with the result that the community demand-driven approach that supports sustainable adoption of improved sanitation is susceptible to distortion.

At meetings with central government stakeholders, such as BAPPENAS, the Ministry of Public Works (MPW) and the Ministry of Health (MOH), emphasis was placed on the need for improvement of individual and community sanitation and hygiene practices; however, field visits disclosed that, whilst IUWASH BCC teams were indeed focusing on these aspects, very little attention was being paid by local government health departments. In actual fact, only limited budgets for travel and developing promotional materials for dissemination to communities are currently being provided by the majority of participating local governments to sanitarians for carrying out their core function of delivering their messages and rationale for their activities to the community. It was not possible during the field visits to elucidate any discernible pattern in budget allocations. Nevertheless, the conclusion of the team is that, generally speaking, there is an absence of BCC policy and priority[14] and that the local government health department does not have a strong voice at annual budget negotiations. This should be a target of IUWASH capacity building and advocacy for

[12] Increased to 250,000 under Contract Modification No 8

[13] Such as the ADB-funded Urban Sanitation and Rural Infrastructure (USRI) project, the IndII-funded Australia-Indonesia Infrastructure Grants for Municipal Sanitation Programme (sAIIG), as well as GOI-funded activities on the APBN

[14] Kabupaten Mojokerto in East Java Province being a notable exception due to the interest of the head of local government

the remainder of the project – to support MOH and local government health departments to develop a system which improves the delivery of hygiene behaviour change services.

This conclusion was reinforced by comments from sanitarians in some regions to the effect that they are often diverted from their core tasks by whatever happens to be the local (or national) government health priority at any particular time. From visits to Central and East Java as well as South Sulawesi Province, it was clear that the current principal target given by MOH for sanitation improvement is for sanitarians to find and report one village which is Open Defecation-Free (ODF) in each local government sub-district (*kelurahan*/*desa*), to be counted for Millennium Development Goals (MDG) purposes, as opposed to counting the percentage of ODF households. As an illustration, the office of the Mayor of Surabaya has circulated an instruction to every community health centre (*puskesmas*) in the city to target one sub-district per year to be 100% ODF.

On the other hand, the same understanding was not found in all regions visited. In North Sumatera, for example, the percentage of households with improved sanitation is still being used as the indicator for counting ODF achievement.

A sound behaviour change strategy is more than just BCC, and should include: (i) the WASH infrastructure (toilets, taps and sinks), (ii) awareness-building and sharing of knowledge (iii) promotion of and motivation to adopt new behaviour patterns, and (iv) creation of an appropriate enabling institutional policy and financial environment. At present, IUWASH interventions are not addressing the whole range of activities within a comprehensive behaviour change strategy. IUWASH should initiate discussions work with the Community-Based Total Sanitation (STBM) unit at MOH to identify the desired improved hygiene behaviours, and develop consistent messages and materials that all implementing agents (e. g. governments at all levels, NGOs, projects) should use to bring about large-scale adoption of the recommended behaviours.

Improved behaviour change outcomes can be achieved through improving coordination among IUWASH teams. The evaluation has shown that sometimes there is a lack of synchronisation within the IUWASH BCC teams across the regions, with each team component striving to fulfil its task at the expense of appropriate consideration for other components. A clear example was found in Kota Tebing Tinggi in North Sumatra Province where there is a joint project for a communal wastewater treatment plant (IPAL), with funding provided through several mechanisms. The team responsible for community triggering did not have proper information on the funding scheme for the project and, as a consequence, had already erroneously informed the beneficiary community that all connections would be provided free of charge, whereas, in fact, the subsidy will actually only be partial.

There was a second communication or coordination problem at this location. The triggering process or *sosialisasi* of the community was planned for a period of nine months through the participation of local community cadres who were aware that their role would terminate at the end of this period. However, the communal wastewater treatment plant (IPAL) and house connections have not yet been completed and there has been no guidance from IUWASH to either the local NGO partner or to the local community cadres on whether or not the time period for the BCC triggering process is to be extended.

A further example of inadequate coordination was found at the community- based desludging activity in Belawan District, Kota Medan[15]. The MTER team visited households which will be involved in the physical desludging process and discovered that they had not yet received any prior awareness-building on related health and hygiene aspects. The local cooperative has made several approaches to

[15] This activity was commenced under ESP but had stopped because of lack of PDAM water. A new treatment plant is expected to re-commence supply by the end of this year or in early 2014.

discuss payment schemes with its members, but without adequately making the link with healthy and hygienic behaviour. All these elements of the triggering process should be done at the same time in order to maximize their impact and provide a better guarantee of sustainability, by means of the community demanding continuity of services once they have understood the health consequences.

IUWASH has added an additional target to its High Level Results, namely HR-4: the number of people participating in IUWASH training activities. Solely counting on numbers of people being trained can lead to an overly optimistic understanding of the progress of capacity building, such as the numbers of qualified resources in place to execute the sanitation marketing programme in the field. For example, at Kabupaten Serang in Banten Province, IUWASH has trained 40 people in sanitation marketing, but only two now remain to participate in the programme. A mechanism or achievement indicator needs to be developed which will give greater assurance of continuity of effort from graduates of the training period. In addition, it is recommended that IUWASH should work not only with sanitarians but also with private sector entrepreneurs to further develop capacity to provide effective sanitation products and services.

Ideally, IUWASH should participate and assist in MOH's efforts to standardize STBM[16] materials for densely populated urban areas[17]. However, the urban sanitation framework developed by IUWASH will also require considerable advocacy to clarify the role of MOH and others in providing and managing the various sanitation activities in these situations, and in identifying a formal institutional mechanism (the *pokjas* are informal working groups, not yet institutionalised within the formal local government organization structure). The urban sanitation framework developed by IUWASH is an excellent starting point for this discussion. The sanitarians are the only local government cohort with responsibility for promoting sanitation in the regions, so IUWASH should demonstrate models of how sanitarians can interact with other local government, NGOs and private sector players in the more complicated setting of urban sanitation.

In making this recommendation, the MTER team is not proposing that development of an urban STBM should become an additional IUWASH contracted target, as new policy initiatives are always an arduous, time-consuming process within GOI. However, an urban-oriented STBM is an urgent requirement and, if IUWASH resources are available to start the process, it would be a valuable contribution towards overall USAID objectives, to be picked up and advanced in the follow-on IUWASH programme.

One of the gaps which requires immediate corrective action from IUWASH is to make available standardised training materials for use by all regional teams. According to the field staff, the curricula produced by IUWASH to date have come from a variety of sources, which have then been cut and pasted as needed, but have not been issued as standard project materials to the regional teams. The national team should work with the Ministry of Health's STBM unit in the Directorate General of Environmental Health to develop a strategic approach and messages for behaviour change, including standardized training materials for sanitarians and integrated maternal health service post (*posyandu*) extension workers.

SEQ 1b. What has been the cost-effectiveness of this project? Cost per beneficiary? How does it compare to other investments and what could be done to reduce costs?

A previous technical advisor worked with IUWASH several months prior to this mid-term evaluation and made a start on trying to calculate the cost per beneficiary. A USAID evaluation team member was assigned this question in order to investigate the issue in greater depth, but the time

[16] Community-Based Total Sanitation, a GOI programme

[17] STBM is only available at present for rural areas

available was not sufficient to gather and analyse the data required to provide an answer in an appropriately rigorous manner. It is understood that this situation is not unique to IUWASH; there seems to be no generally accepted methodology within USAID as to which project costs should be included and which excluded, so there are few examples available for comparison.

The targets in its contract oblige IUWASH to focus on larger towns. Whilst this approach provides a broader basis for reaching higher quantitative targets which are also generally less expensive on a cost per beneficiary basis, it may be counter-productive to USAID's goal of reaching the poor and vulnerable, where costs per beneficiary are typically higher. Obviously, a continuation of this practice of concentrating on densely populated urban areas will eventually start to produce diminishing returns. IUWASH could reduce costs by working in fewer places, or just in big cities; however, one of the principal strengths of IUWASH is the geographical, social and cultural range of local governments and PDAMs covered by the project which enables the generation of learning and benefits that will be a strong contribution to sector reform in Indonesia. New policies need to be informed by the fullest range of cities and towns and capacities of governments practical.

SEQ 1c. Since water and sanitation implementation has been disaggregated in their respective institutions, are there any instances where water and sanitation implementation has been integrated? Has this been complementary or harmful? What recommendations can be made for or against integrated programming in Indonesia?

This question has been examined from two perspectives: (i) integration of water and sanitation as sectors, and (ii) integration of water and sanitation in terms of their operation and management by a single local government institution.

Findings and Lessons Learned re Potential for Integration of Water and Sanitation as Sectors

The team has been unable to find any reference in the original SOW which specifically requires IUWASH to examine the feasibility of integrating the water and sanitation sectors. The MDG international targets for access to safe water supply and improved sanitation are not integrated and, since the overall goal of IUWASH is to assist GOI in making progress to achieving these MDG targets, the team has assumed that the lack of such reference in the SOW was intentional in order to be consonant with MDG approaches. It is also noted that there are separate directorates for water supply and sanitation[18] in the Directorate-General of Human Settlements in the Ministry of Public Works (MPW) and that there is no integration in their programming. Although water supply was included with the sanitation sub-sectors (GOI definition) in the eight (8) pilot city sanitation strategies (CSS/SSK) under the Government of the Netherlands funded and World Bank administered Water Supply and Sanitation Programme (WASAP) up to 2010, the sector was subsequently dropped from the later PPSP CSS. Consequently, there are no current instances of integrated programming of the two sectors in Indonesia

Furthermore, the team considers that pursuing an objective of sector integration is not altogether compatible with the supply-driven quantitative targets which IUWASH is contracted to achieve. USAID needs to make the distinction between quantitative outputs (e.g. numbers of people with access to improved sanitation) and more qualitative outcomes such as the positive impact on environmental health which, presumably, would be one of the benefits which would be expected in order to justify sector integration.

[18] It will be recalled from Footnote No 1 that the GOI definition of sanitation includes solid waste and tertiary drainage, as well as wastewater.

In practice, to date, IUWASH has taken the three components of the project design, namely demand creation, capacity provision and building an enabling environment, which are considered by the team to be still valid, and has applied its resources to each of the water and sanitation sectors individually, rather than in an integrated manner. Given the content of the SOW, the nature of MDG goals and the emphasis on quantitative outputs, IUWASH could scarcely have been expected to do otherwise.

Recommendations re Potential for Integration of Water and Sanitation as Sectors

This aspect needs to be carefully reviewed by USAID as part of its forthcoming preparation for the follow-on IUWASH activity, in consultation with GOI. In the meantime, the MTER team believes that there is a need to improve the linkages between project design and contracted targets by distinguishing between outputs and outcomes and recognising the contribution of the less tangible aspects of outcomes to water and sanitation sector development. This should take into account the fact that, whilst improved water supply does not depend on improved sanitation, improved sanitation is very much dependent on the availability of water, a lesson already learned by IUWASH in its attempts to find suitable locations for the construction of USAID grant-funded community sanitation and washing facilities (MCK). Behaviour change communication will continue to be necessary for demand creation towards improved access in both sectors.

The above considerations invite the question of what IUWASH might contribute during the balance of the project towards a better understanding of what could be expected to improve linkages between, as opposed to integrated programming of, the sectors, given the recent strengthening of the Contractor's resources. The team believes that there is good scope for this, especially if sanitation is to be developed in a more holistic way, in accordance with the MTER team's proposal for the development of a comprehensive road map in response to SEQ 3e. Local government ownership would be demonstrated by the establishment of a high-level sanitation *pokja*, to include the PDAM, as well as concerned local government departments and agencies, whilst overall responsibility for operation and management of sanitation would be vested in a single working level institution (except, perhaps, in the case of centralised off-site sewerage); such responsibility would especially include the supervision of individual household installations which are the issue of greatest concern for environmentally secure wastewater disposal. This last-named task would provide an excellent test case for proving or otherwise the distinction between outputs and outcomes, since positive developments in household wastewater disposal from existing installations would not contribute to the IUWASH quantitative targets of additional people or families with access to improved sanitation, but would find an outlet in improved environmental health. The window of opportunity for this approach is available because it now seems beyond reasonable doubt that IUWASH will achieve its higher level targets with some comfort, and will therefore have a certain amount of resources available to test this approach. In this regard, IUWASH should also facilitate Ministry of Health engagement with the appropriate infrastructure and governance institutions in terms of the behaviours promoted in STBM, and work to institutionalize these relationships as part of the urban sanitation framework. Similarly, IUWASH should encourage engagement of the PDAMs around the increased water demands and wastewater generation for improved sanitation and hygiene which would result from implementation of STBM in urban areas, using the model already established in Kabupaten Sidoarjo as the baseline exemplar.

Findings and Lessons Learned re Integration of Water and Sanitation within a Single Local Government Institution

To date, most of the limited number of centralised reticulated sewerage systems with treatment plants already functioning are located in major secondary cities, and are being managed and operated

by PDAMs, e.g .Medan and Surakarta (IUWASH cities) and Bandung and Cirebon (non-IUWASH cities). Exceptions to this are in Denpasar and Banjarmasin, where the systems are the responsibility of a semi-autonomous public service agency (BLU-D) and a dedicated local government-owned enterprise (PD-PAL) respectively. As a consequence of major investments in centralised sewerage systems now being planned or implemented, it currently seems more likely that responsibility for their management and operation will be vested in a BLU-D.

Some of the above PDAMs, as well as others in cities without centralised reticulated systems, also manage and operate faecal sludge collection and disposal from households on an "on-call" basis. However, in the majority of cases, these services are the responsibility of units located within a local government service department (*dinas*), usually the public works or cleanliness (*kebersihan*) organizations.

Some of the communal decentralised sewerage systems are constructed and managed by the local government public works department, but many others are also operated and managed by community organizations; individual wastewater installations are a household responsibility.

In terms of the experience to date of complementarities for integrating centralised reticulated sewerage systems and water supply management and operation under PDAMs, the major advantages are that PDAMs in large cities are well-established organizations, possess considerable experience in managing large infrastructure fixed assets and have an efficient billing and collection system which can accommodate invoicing and collecting for both water supply and sewerage services. The major disadvantage is that PDAMs, as local government enterprises, are expected to prioritise profit, whilst wastewater is not regarded as a full cost recovery sector[19]. Because of this and the history of reticulated sewerage low connection rates, PDAMs do not even recover recurrent costs; furthermore, local governments may not legally make provide operating subsidies in their annual budgets for their enterprises to cover these losses. Consequently, PDAMs have to provide cross-subsidies through the water tariff[20], which compromises their ability to raise investment equity for improving their core function of water supply. These current practices are a convenient excuse for heads of local government to transfer budget responsibility, but are a burden for the PDAMs themselves.

Recommendations re Integration of Water and Sanitation within a Single Local Government Institution or Enterprise

Unless local governments are willing to provide compensating amounts as water supply investment equity to PDAMs, the recommendation is that USAID should not pursue integration of the two sectors under the responsibility of a local government-owned enterprise. Instead, it is better that new reticulated sewerage systems should be made the responsibility of public service agencies (BLU-D) which are semi-autonomous, "not necessarily for profit" units within the local government organisation structure, whose non-recovered recurrent costs can be subsidized through the local government budget (APBD). However, USAID should continue to assist PDAMs managing off-site sewerage systems, upon invitation by local governments, where the issues requiring assistance are other than institutional. The Ministry of Health also needs to be brought into the institutional

[19] Under Law 28/2009 on local government taxes, it is stated that all service charges, including wastewater and sludge management service charges, should be below full cost recovery. The PDAM water supply tariff is outside this legal framework.

[20] PDAM Surakarta cross-subsidized an amount of Rp 4.3 billion of reticulated sewerage system O&M in 2012 through the water supply margin. There are plans proposed by IUWASH and accepted in principle by Surakarta local government for regular desludging to be made mandatory, with PDAM managing the activity and adding a surcharge on to the water supply bill (80% household coverage at present. It is understood that this surcharge will cover some portion of the reticulated system O&M subsidy

structure for urban WASH, whilst a modified "urban STBM" module needs to reflect the roles of other institutions involved in providing sustainable sanitation services.

Since the declared focus of USAID assistance is on low-income groups, water supply and sanitation, together with health and hygiene guidance, should continue to be supported because of the leverage of the availability of a secure water supply on improving access to sanitation. Even in cities with existing or planned reticulation systems, on-site individual household installations are likely to continue to account for by far the greater part of wastewater disposal requirements in the foreseeable future. However, these installations are also the source of the greatest environmental health risks. Suitable institutions must therefore be established to deal with household sludge management on a comprehensive basis[21], instead of continuing to rely on the limited requirement for the "on call' services currently being provided and the largely uncontrolled activities of private sector desludging operators. Policies should also provide a target for full recovery of sludge management O&M. A technical service unit (UPTD), housed within an appropriate local governmental service department (*dinas*) is recommended as the most suitable institutional vehicle for operating and managing sanitation sector service deliveries which do not include centralised reticulated systems.

These aspects and the need for technical supervision and environmental oversight of community decentralised and individual household wastewater disposal systems are discussed further under SEQ 3e.

SEQ 1d. To what extent has the project been able to facilitate household access to micro-finance for WASH improvements, and what are the lessons learned from this component?

Findings and Lessons Learned

IUWASH's micro-finance component for households and small businesses is the one of the very few targets that is at high risk of not being met by the end of the project, based on current projections. This may point to a faulty assumption during the design phase; that access to finance for low income households was a major limiting factor for improving access to improved water and sanitation services. Unlike the high level results for access to water and sanitation, increased use of microfinance is not desirable in its own right, but only as a tool to address a perceived barrier in support of the infrastructure access goals.

There were delays in initiating the micro-finance activities when a personnel change at Bank Rakyat Indonesia (BRI), the original micro-credit partner identified near the end of ESP, resulted in a lack of interest in pursuing micro-finance for water, sanitation and hygiene (WASH) products and services. IUWASH subsequently started to develop a relationship with the new contact at BRI, as well as a new relationship with Bank Syariah Mandiri (BSM), building confidence in the banks to lend for this sector. IUWASH has also developed a micro-financing model, working with cooperatives to create and consolidate demand for improved infrastructure, improve hygiene behaviour, and to facilitate access to financing.

Lack of raw water, due to either real scarcity, limited treatment and storage capacity at the PDAM, or poor management of non-revenue water (NRW), is a limiting factor to increasing household water supply connections within some PDAM service areas, so that the pool of potential clients for

[21] The IUWASH plan to assign full responsibility for universal sludge management to the PDAM in Surakarta is to be commended; but it is a solution with limited potential for replication elsewhere due to the requirement for a very high level of household water supply coverage.

micro-finance is effectively limited to those PDAMs which currently have excess capacity. In addition, the IndII part-funded "Water *Hibah*" grants programme, also supported by USAID, has affected the potential demand for micro-finance for water supply connections since all customer fees are waived under this activity.

Although demand for use of micro-financing as a tool has been less than anticipated, there is much to be learned during the remaining life of the project. IUWASH has activities in both water supply and sanitation involving different combinations of service providers, banks, cooperatives, and micro-finance institutions. There are three PDAMs in Central Java which have been found to be financing household water supply connections internal cash generation. This is the cheapest method for the consumer, but most PDAMs do not have sufficient cash flow to do this or are unable to get financing from commercial banks. There is also a model where households sign up with BRI and BSM banks as new loan clients, but PDAM provides the guarantee, as well as a third model where financing is provided through cooperatives, with their financing sourced from either banks or micro-finance institutions. The PDAM in Kabupaten Mojokerto (East Java Province) has signed agreements with three different banks to create competition among the lenders and provide multiple options for potential clients.

IUWASH has just started a pilot activity of hiring sales agents to market financing of new connections, serving as intermediaries between the PDAM and BRI, through the use of performance-based contracts. The results from this pilot will be documented and, if the incremental revenue is greater than the cost of the sales staff, the plan is to disseminate it widely to other PDAMS for use as a tool in service areas where there is excess water supply capacity but where the demand for connections exceeds PDAM financial capacity.

In terms of assisting access to improved sanitation, IUWASH staff are still learning about which would be the most effective institutions and arrangements for promoting micro-finance use. To date, they have been working with small and medium-sized enterprises (SME), sanitarians, banks, and cooperatives as key players. For example, the original cooperative in Kabupaten Jeneponto, which also served as the constructor, found that the demand for sanitation overwhelmed its capacity to construct toilets and wastewater connections, and they consequently have withdrawn from offering financing for sanitation. IUWASH is now working to develop other options for meeting this demand. This should include ascertaining the extent to which the Cipta Karya national standard for household septic tanks is being disseminated to SMEs and individual households by local government public works and health departments.

Health volunteer cadres collect data on access to sanitation and report up to the community health centres (*puskesmas).* In this manner, IUWASH can identify households in its project areas which have used project-facilitated micro-credit. These data are an important aid to a better understanding of the usefulness of micro-credit as a tool, and to identify households using other financing mechanisms such as their own savings or household savings groups. Targeting these households with formative research will help understand their motivations, so that IUWASH can support methods which may have more potential to increase access to improved sanitation rather than through a formal micro-credit system.

In terms of developing more active private sector engagement, efforts to date have focused on providing training to try to create SMEs in the sanitation sector but, on the basis of the project documentation, there have been fewer initiatives aimed at the engagement of existing private sector partners which already provide sanitation products and services, whilst large scale businesses in the construction materials industry have not been explored at all to date. There is a perception that IUWASH is either not clear in its methodology or is shying away from approaching the business aspect of sanitation marketing.

In East Java, there are problems of product design, with septic tank moulds of 60 cm diameter being found as the standard. To reduce the frequency of desludging, diameters of 80 cm to one metre would be more practical. IUWASH should be able to provide the necessary design assistance, but it might be more practical to develop relationships with commercially-oriented enterprises instead of engaging a university to design and develop a septic tank moulding.

It was also noted that MOH is completely absent in discussions of urban sanitation financing. Their STBM model, which is targeted at rural areas, has a no-subsidy approach and relies on households themselves to cover the entire cost of their sanitation improvements. IUWASH reports willingness-to-pay issues, although instances were found during field visits of households, some of them in what appeared to be low-income dwellings, which had paid in full or with a substantial down payment for their septic tank and toilet installation.

The lack of an overarching strategy for changing behaviours related to water and sanitation may also result in a limited uptake of micro-finance. There are gaps in IUWASH's understanding of their target population in terms of their motivations and barriers to sanitation improvements, especially as they relate to financing, as well as how the target population differs from those households which already have invested in improved access to water and sanitation.

Recommendations

IUWASH should ensure that they fully understand their target population, and then develop a strategy for addressing the specific barriers to improving water and sanitation for these targets. To the extent that lack of financing is found to be a barrier, IUWASH should explore other models of financing, e.g. self-financing through income generation and savings groups, or through local government support[22].
In the remaining years of the project, IUWASH should work on all four elements of sanitation marketing (product, price, location, and promotion) and expand their engagement beyond SMEs to include larger businesses, especially in the construction sector, to support a scale-up of sanitation.

IUWASH should also work with MOH to clarify their role in urban sanitation (along with MPW and other involved institutions). If GOI stakeholders conclude that micro-finance or other financing methods are required as part of the overall urban sanitation approach in the country, then the MOH's Environmental Health Directorate-General, as the institution responsible for promoting sanitation, will require different tools and training, including talking to micro-finance institutions (MFIs) and cooperatives to support household investments.

Similarly the Year 3 annual report notes that IUWASH has engaged with the Ministry of Cooperatives (MOC) to tap into central government funding for water and sanitation. However, if this model of financing is deemed to be useful in increasing access to low-income households, it will require additional work on the part of IUWASH to ensure that it is properly institutionalized within that Ministry as well.

In all these activities, IUWASH should document experiences from existing and planned microcredit and microcredit-related activities[23], if necessary through production of manuals, to explain which approaches work and which do not and why, so that future projects may benefit accordingly.

[22] Especially as central and local governments are already providing grants for connections to centralized and decentralized sewerage systems

[23] e.g. working with SMEs and larger manufacturing businesses

3. EVALUATION QUESTION NO 2

3.1 LEAD EVALUATION QUESTION

Are all expected results likely to be achieved by the completion of the project and, if not, what changes to targeted results and/or implementation approaches should USAID/Indonesia consider?

Now that all activities have been mobilised and are in full flow, 2014 will be a critical year in determining the extent to which IUWASH will meet its contracted performance objectives. IUWASH is already well on course to achieving most of its original targets and is confident of reaching its high level results (HR), whose current progress, 2014 project year (PY) plan and end-of-project targets are shown below. The equivalent results for the three lower level component indicators, i.e. (i) mobilisation of demand (MD) for improved water and sanitation – 6 targets, (ii) improved capacity (IC) to provide sustainable safe water and sanitation services – 10 targets, and (iii) creation of an enabling environment (EE) for supporting equitable water and sanitation services – 6 targets, and their sub-components can be found in Appendix 7[24].

HIGH LEVEL RESULTS (HR): MDG OUTCOMES			
Indicator	**Sept 2013 Actual**	**Sept 2014 Plan**	**End Project Target**
HR 1. People in urban areas gaining access to improved water supply	847,600 (42.4%)	1,539,015 (77.0%)	2,000,000
HR 2. People in urban areas gaining access to improved sanitation	61,440 (24.6%)	202,690 (81.1%)	250,000[25]
HR. 3 Unit water cost paid by poor decreased by 20%	(27%)	24%	(20%)
HR.4 People trained in IUWASH sanitation activities	37,329 (49.8%)	47,294 (63.1%)	75,000[26]

An over-arching project risk would be a severe deterioration of the macro-economic climate in the country which could militate against the achievement of most of the IUWASH targets. This especially concerns Target EE 1, which requires local governments to set greater priorities on safe drinking water and sanitation through supportive policies and budget allocation increases, and which would be adversely affected by a reduction of inter-governmental fiscal transfers. The knock-on effect would be on HRs 1, 2 and 3.

Other specific targets, which are potentially problematic and recognised as such by the Contractor at the mid-point of the IUWASH project, are:

- IC 6: Small and medium-sized businesses (SMEs) providing affordable construction and sanitation facility management services (end-of-project target: 30 SMEs);

[24] Including the additional targets resulting from Contract Modification No 8
[25] Ref: Contract Modification No 8. The original target was 200,000.
[26] Ref: Contract Modification No 8. The original target was 50,000.

- EE 4: Low-income households accessing micro-finance for improvements in water and sanitation (end-of-project target: 40,000 households), and
- EE 2: PDAMs and/or LGs obtaining access to long-term funding for water and/or sanitation investment plans (end-of-project target: 15 households).

Issues relating to the first two targets and suggestions for improving performance are contained in the discussion in SEQ 1d. However, the MTER team believes there is a case for reducing Target EE 4 or dropping it as a specific target altogether and integrating it with higher-level target HR 2 results concerning the number of incremental urban dwellers gaining access to improved water supply and sanitation. This is discussed against SEQ 2e.

The MTER team also notes that the expected facilitation of state bank credits for PDAMs through GOI-financed partial credit guarantees and subsidised interest rates, as provided for by Presidential Decree (*Perpres*) No 29/2009, has not occurred to the extent anticipated[27]. Continued bureaucratic delays on the part of MOF in reaching agreement on the necessary partial credit guarantees with banks and issuing the formal documents is likely to impact negatively on the eventual performance of Targets HR 1 and of EE 2 which respectively concern the number of incremental household connections for water supply and the ability of PDAMs or local governments to access long-term funding for water supply investment. Whilst recognising the risk, the Contractor still considers that Target HR1 will be met, because of APBN and APBD grants to PDAMs, as well as PDAM internal cash generation. However, the timing for claiming success against Target EE 2 should be moved forward to the point of the GOI coordinating committee's approval for providing loan finance, rather than the disbursement of the approved loan itself.

Contract Modification No 8 sets an additional end-of-project performance target for the establishment of ten (10) local government sanitation management units (UPTD), to be supported with policies, budgets and personnel. IUWASH has already agreed to provide assistance to 34 local governments in drafting regulations for establishing UPTD and thereafter guiding these new units through the necessary regulatory performance criteria which will enable them to be upgraded to BLU-D. Potential problems here are: (i) whether the current freeze of additional government personnel hiring will result in unsuitable staff being sloughed off by other departments into the UPTD, and (ii) looking to the future and the greatly increased demand for qualified sanitation engineers, to what extent supply will satisfy demand, as it is understood that that few universities in Indonesia have sanitation engineering courses, the only institution of which the team is aware that is currently offering the course being the University of Technology in Bandung. The first potential problem is for IUWASH to guard against during its activities with local governments, whilst the second is a central government issue[28].

Aside from the comments made above, there are no further recommendations proposed for changes to targeted results and/or implementation approaches at this point in time. However, the Contractor should keep the above matters under consideration and keep USAID and GOI informed accordingly. Better documentation of experiences in respect of components where there may be difficulties in meeting targets would be of assistance for future project design.

[27] Ref: LEQ 3 and SEQ 3b.

[28] Probably between BAPPENAS and the Ministry of Education

3.2 SUPPLEMENTARY EVALUATION QUESTIONS AND RESPONSES

SEQ 2a. Are the indicators identified as contributing towards achievement of the USG standard foreign assistance indicators and GOI water and sanitation indicators correctly specified? If not, how can they be improved?

The response to this SEQ was to have been completed by a USAID participant in the MTER team who has not provided any written input; consequently, this question has not been answered.

SEQ 2b. Is the project reaching the desired beneficiaries?

Findings

Under the Assistance Objective (AO) of the USAID Country Strategy for 2009-2014, it is stated that the implementation of IUWASH will contribute to Intermediate Result (IR) 3 of increasing access to safe water and improved sanitation, with an emphasis on reaching the urban poor. However, there is no USAID definition of what constitutes the urban poor and, as consequence, IUWASH has not been tracking its success in this regard in a quantitative manner, although the MTER team would agree that project activities are targeted qualitatively at the urban poor.

Recommendations

Two stopgap scenarios have been examined for estimating whether the project is, in fact, reaching low-income urban groups in the community. The first is through a review of those households invoiced on the basis of the lower categories of the water supply tariff and those accessing public taps, both of which are designed to assist these low-income groups. However, PDAMs do not always employ the same number of household categories in accordance with the Ministry of Home Affairs (MOHA) regulation[29], and it is difficult to make an assessment on a comprehensive basis of which tariff categories truly benefit the poor; furthermore, low-income groups often have an image problem accessing public taps and prefer instead to buy water from neighbouring households with the water supply connection or even, as a last resort, from a water vendor. Finally, of course, this approach has the disadvantage of targeting only low-income groups for the water supply component.

A more feasible solution would be to obtain the electricity supply rating of those households which have obtained improved access to both safe water and improved wastewater disposal since the beginning of the project. Since almost all households are supplied with electricity, the lowest rating could be taken as a proxy for low-income groups. It may thus be possible for IUWASH to record all households with this rating which have obtained such access since the beginning of the project, either through obtaining permission to view the records of the provincial office of the national electricity company (PLN) or, failing this, making a physical verification by visiting the households concerned. This could be applied as a temporary solution, retroactively and, if required, forward towards the end of the programme, until such time as USAID comes up with an improved targeted solution for a more sustainable definition of the poor.

The above alternatives only apply to counting beneficiaries as they occur. An approach is also desirable for enabling planning the process for reaching future targeted beneficiaries. One possibility could be to make use of the mapping of the red and yellow problem areas in the PPSP Environmental Health Risk Assessment (EHRA) areas and to overlay these with low-income households which are (i) registered with local governments as recipients of welfare payments to compensate for the

[29] MOHA Decree No 23/2006 requires four categories but, for example, PDAM Kabupaten Lamongan has only two

impact of higher fuel prices, (ii) have received the PDAM connection during the current IUWASH activity, and (iii) have the lowest-rated PLN electricity connection.

SEQ 2c. Is achievement of the higher level indicators sufficiently attributable to USG assistance? If not, how might IUWASH improve appropriate attribution of results?

The IUWASH SOW defines a series of targets in the form of results and deliverables, the degree of achievement of which is measured by means of indicators for each result and deliverable. The characteristics of these indicators are described in USAID guidelines, one of which requires that performance indicators should be capable of measuring change which is clearly and reasonably attributable, at least in part, to the efforts of IUWASH and, by extension, to the provision of this USAID technical assistance.

The methodology for planning, managing and documenting how performance indicator data are collected and used is provided in the IUWASH Performance Monitoring Plan (PMP). Each high-level and component indicator (ref LEQ 2) provides a statement of how each is to be achieved and counted for attribution to IUWASH, by means of procedures for data acquisition, analysis, appraisal and recording, together with a review of potential data quality issues.

Progress towards target achievements is provided and updated through the periodic IUWASH reports. The PMP reporting format is used for both high-level and lower-level targets, each specifying the indicators, annual target, project total target and progress to date, and containing a short narrative. Annexes to the reports are attached for each target. These provide considerable detail to support the results claimed.

In addition to reviewing the relevant documentation, the MTER team, particularly the USAID representatives attached to it, discussed the attribution methodology with the IUWASH head office staff, followed by further checks with the regional teams and ad hoc sampling with IUWASH counterparts. The review covered all indicators, not just the higher level targets as required by the SEQ. It was concluded that the results presented by IUWASH are reasonably attributable to its performance and can be independently verified, if required.

SEQ 2d. Is there evidence of IUWASH's impact on PDAM performance when comparing all or some of the components of the PMP indicator describing the 'number of PDAMs with improved technical, financial and management performance" between IUWASH-assisted PDAMs and those that IUWASH is not assisting? Examine a set of key performance indicators to compare performance between IUWASH and non-IUWASH assisted PDAMs.

Findings

Considerable time and difficulty would be involved on the parts of both the MTER team and the Contractor in collecting the required data from non-IUWASH PDAMs (i.e. justifying the reasons for such requests to PDAMs and their local government owners which are not participating in the project), on the basis of which to evaluate the question. It should also be noted that there are significant differences between the IUWASH-developed PDAM performance index and the government regulation on which the PDAM annual performance audit is conducted[30].

[30] MOHA Decree No 47/1999. Some of the PDAM performance indicators contained in the decree are deeply unsatisfactory, and acknowledged to be so by the government auditors.

Furthermore, there is no level playing field on which to base the comparison. All PDAMs are different in terms of their characteristics (gravity/pumping requirement, extent of NRW, degree of reliance on groundwater or surface water sources, territorial area, number of peri-urban separate water supply systems (IKKs), etc. There is also the question of establishing a performance period assessment from which to begin the measurement. Engagements with IUWASH PDAMs have started at varying points in time and would have to be matched with equivalent non-IUWASH PDAM timelines for performance measurement.

Finally, it would not be sufficient to simply compare the performances of IUWASH PDAMs with those of non-IUWASH PDAMs in quantitative terms; it would also be necessary to examine qualitative aspects at non-IUWASH PDAMs to determine what has happened to cause the change in performance.

Recommendation

As an alternative measurement of performance, the MTER team recommends using the results of the IUWASH PDAM Performance Index, whose indicators, scoring and weighting have been developed internally within IUWASH. The primary indicators are: (i) financial (ii) technical/operational, (iii) raw water, (iv) customer relations, (v) good governance and low-income groups focus, and (vi) human resources development and management. Each primary indicator has secondary and (sometimes) tertiary indicators. The total score for all indicators is 100, and IUWASH establishes a baseline score by agreement with each participating PDAM. The index is updated by IUWASH every six months based on interim and subsequently audited data. The results are used as input to IUWASH periodic reporting on contracted water supply targets.

Appendix 8 compares the performance of 24 IUWASH-assisted PDAMs at the baseline of June 2011 and at June 2013[31]. Assuming that these PDAMs continue to show an equivalent rate of progress during the remaining period of activities to be monitored, 21 of these will have improved their performance score by at least 30%.

IUWASH should consider promoting the use of its own PDAM performance index to replace the one in current use for the purposes of PDAM performance auditing and to BPPSPAM at MPW. It is further recommended that USAID reviews the suitability of the index for adaptation for water supply technical assistance in other countries.

SEQ 2e. Are the sector targets appropriate and/or should new targets or intermediate results be included for IUWASH's new sanitation focus (such as UPTD establishment or SSK development)?

Recommendation

Sector targets are considered to be appropriate for the time being, with the exception of EE 4 which should be reduced or, preferably, dropped altogether as a target (ref response to LEQ 2). For the reasons and events already provided in SEQ 1d, some of which were unforeseen at the time of signing the contract, IUWASH will have difficulty reaching this target. Consequently, in attempting to reach this lower-level performance contractual target, the Contractor may risk diverting resources which would otherwise be better applied to increasing the overall total of people with access to improved water supply and sanitation, as per high-level targets HR 1 and 2, by a greater number than

[31] A further 27 PDAMs entered the index at the end of 2012 and therefore have only one reporting period at June 2013; for this reason, they are not included in Appendix 8

that which is specified against Target EE 4. This does not imply that the development of micro-credit should not continue – to the contrary, it should, but as a component of facilitating access to improved water supply and sanitation, with results being counted directly in the overall household water supply and sanitation high-level targets.

A target for establishing UPTDs for the sanitation sector is stipulated in Contract Modification No 8, and has also been commented upon in response to LEQ 2.

IUWASH was earlier requested to hire additional staff to provide support to SSK development. It was not possible to locate the necessary personnel and, in the end, IUWASH diverted some of its available resources to comply with this request. However, a significant part of the preparation time for the first round of SSK has involved getting the working groups (*pokja*) familiar with the general requirements of the planning process. Whilst the need for such an approach was widely understood and appreciated at the time, it has delayed the follow-on stage of developing project implementation memoranda which would have been more relevant to the IUWASH agenda. As the requests for assistance to IUWASH became more onerous in terms of personnel deployment, IUWASH was obliged to withdraw its support, although its contributions have been acknowledged by both GOI and the PPSP consultant.

It is understood that a second phase of PPSP is likely to begin in 2015. SSKs are expected to be revised and updated with a greater focus on more detailed targeting of implementation requirements[32]. IUWASH is better equipped to provide assistance for this task, because of its spread across so many local governments, rather than to a generic process towards producing good planning documents. However, it is considered advisable for IUWASH to wait for the issue of the TOR for this second phase of PPSP before making any commitment. No decision in this matter should be taken before such time.

[32] In the original SSKs, there is no inventory of sanitation assets, on the basis of which project implementation memoranda would normally be developed.

4. EVALUATION QUESTION NO 3

4.1 LEAD EVALUATION QUESTION

What evidence is there for the validity of the overall development hypotheses or critical assumptions underlying the project design and ensuring their sustainability?

Generally speaking, it is considered that the overall development hypotheses are still valid, as are most of the major assumptions on which the project design was based. This is demonstrated by the progress towards contract targets which IUWASH has achieved to date. However, the implied assumption in the design that the establishment at national level of minimum service standards (MSS) for water supply and sanitation would be matched by the availability of the required funding is not well founded. It is understood that the MSS themselves are insufficiently detailed to permit a proper costing for the sectors, and, in any case, local governments will always counter that central government fiscal transfers to the regions are not enough to meet the MSS.

There is still much work to be done in articulating to local governments the linkages between water supply, sanitation and hygiene in urban areas and their beneficial impact on health. Particularly in some of the *kabupaten* local governments, there is an incomplete understanding among municipal leaders that improved sanitation and the health benefits it will bring to households, and therefore the resulting economic paybacks, will not be realised unless there is general access to clean water to facilitate this.

Central government-led performance in the sanitation sector since 2010 has exceeded USAID's expectations. Under the first phase of PPSP, 437[33] city sanitation strategies are now expected to have been completed by the end of 2014[34]. It is expected that a second phase of PPSP to target investments in sanitation will begin in 2015 with IUWASH to provide project memoranda preparation assistance in the regions to donor partners. Central government investment in sanitation through the MPW (APBN) and the Special Allocation Fund (DAK) has increased[35], with a focus on those areas identified as critical in the PPSP Environmental Risk Assessments (EHRA).

The City and Regency Alliance for Better Sanitation in Indonesia (AKKOPSI) has expanded to include all participants in PPSP. Its objectives are to: (i) act as a sanitation forum for sharing learning experiences and (ii) function as an enabling environment to coordinate, synergise and integrate work-groups to support improved sanitation. Members have affirmed their commitment by agreeing to allocate a minimum of 2% of local government annual budgets to the sanitation sector[36]. Appendix10 compares budget allocations of 50 IUWASH local governments to the wastewater sub-sector[37] in 2010 and 2013; it shows that 39 local governments have increased their allocations, some of them significantly so, with 20[38] of them providing more than 1% in their 2013 APBD.

AKKOPSI has also established a national water supply and sanitation city/regency ranking table, using a national database (NAWASIS) which collects key indicators from local governments to provide a

[33] Or more than 86% of the total number of autonomous local governments in Indonesia
[34] Compared with the original PPSP target of 215
[35] Ref: Appendix 9
[36] GOI definition of sanitation, not that of USAID and the international donor community
[37] i.e. excluding the other two component (solid waste and tertiary drainage) of the GOI definition of sanitation
[38] Including three whose allocations were actually lower than in 2010

management information system (MIS) at national level to guide sector policy-making for the achievement of national development goals.

The response to LEQ 2 has already made reference to the disappointing results from the much-vaunted *Perpres* 29 initiative, whose contribution in the project design to mobilising funds for incremental investment in water supply was expected to be significant at the time the project design was being developed.

4.2 SUPPLEMENTARY EVALUATION QUESTIONS AND RESPONSES

SEQ 3a. How well are the three project components (i.e. demand, capacity, enabling environment) linked to each other and how has this affected success?

Findings

The MTER team heard from numerous sources that these components are mutually reinforcing, and that outcomes targeted in each component are linked. However, phasing is important, and at some point each component will become the limiting factor to scaling-up access. All informants agreed with the need to keep enabling environment as part of the future design.

Specifically, the team found that MOH is the only ministry with a mandate to promote sanitation, yet it lacks capacity around STBM in general, with the result that there has been no platform for IUWASH to develop in order to create demand for urban sanitation. As a result, IUWASH has had to start from the beginning, developing training materials and training sanitarians on STBM, and then leaving them to implement the process in urban areas where it may not always be appropriate. This is because the demand creation side in urban areas differs from that in rural areas because the urban infrastructure element is more significant so that costs are higher. In rural areas, "do-it-yourself" sanitation options tend not to create a public health risk, but in urban areas there are standards and hardware requirements to be met in order to ensure that public health considerations from household investments in sanitation are taken into account.

During the course of a meeting with MPW in Jakarta, the team was informed that the approach towards the typical models so far deployed in urban sanitation (the ADB-funded Urban Sanitation and Rural Infrastructure (USRI**)** and the GOI-funded Community-Based Sanitation (Sanimas)) programmes has been to lead with infrastructure, and then ask MOH to come in to do the community socialisation. MPW has now recognized that there is no demand creation in the model, and has asked for IUWASH's support with this, in response to which IUWASH has provided training to local government health department facilitators and sanitarians. The World Bank Water and Sanitation Project (WSP) has noted that existing sludge treatment plants do not have enough hook-ups to reach design specifications, with the result that these are either not working at all or are not working to optimal levels of capacity. Clearly the demand creation side is important, but it is currently being neglected in the water supply and sanitation sectors in Indonesia which have supply-driven targets to reach; and once water and sanitation infrastructure are constructed, individuals need to adopt improved hygiene practices to capture the intended health benefits. These behaviours are the elements of the STBM, and are currently being promoted solely by sanitarians. However, as WSP has noted, once demand is created, households need to have something to invest in for on-site sanitation, whether provided by PDAMs, MPW or small businesses, again validating the project design with the three components.

However, beyond creating demand, MPW has also requested more help to build the capacity of community-based organizations (CBOs) to manage the new infrastructure, since it is now the limiting element. MPW would like more adaptive engagement, for IUWASH to identify gaps and fill

them, not to stick to a standard implementation model. This would probably require more time and resources than IUWASH has planned for, and points to a flaw in the design of the ADB sanitation project. Training MPW sanitation project facilitators is not a strategic use of USAID's resources and, in the long term, not strategic for GOI either.

IUWASH's urban sanitation framework (Appendix 6) takes these components and shows them graphically along with the three types of technology options, which even in draft form is a major contribution to the urban sanitation sector. IUWASH has proven to be an effective facilitator between health, infrastructure and the enabling environment, but the question of how to institutionalize this before the end of the project remains. STBM is clearly inadequate for urban situations, so there is a need to adapt and get buy-ins for urban sanitation separately from the full suite of national and local government institutions involved in water and sanitation sector service delivery and hygiene behaviours.

In Kabupaten Tangerang, the *puskesmas* were interested to expand sanitation marketing for motivated sanitarians; however, they had not thought to have a proposal prepared by the local government health department to support this in the annual budget, despite BAPPEDA's increasing support for sanitation.

Recommendation

IUWASH should refine the urban sanitation framework, particularly the triggering box, to capture the full suite of activities required in each component, then present it to international community partners and MOH, MPW and BAPPENAS to try to reach consensus for its adoption at the highest levels in GOI in order to support the sustainability of sanitation investments moving forward. The MTER team suggests that IUWASH proposes a name for the urban sanitation framework that does not have "STBM" in it, or the other institutions will not buy in. Nevertheless, MOH and local government health departments need to be a major part of the urban sanitation framework, since they will be socializing communities and creating demand for the urban infrastructure.

As recommended above in the response to SEQ1a, IUWASH should work with the STBM unit at MOH to develop clear and consistent messages that will create demand for and support adoption of the key hygiene behaviours. These messages should be disseminated through government and NGO networks and through the *pokjas* so that other local government units can support their respective components of the whole.

SEQ 3b. Have there been any unanticipated changes in the host country or donor environment that suggest the need for changes in emphasis in the IUWASH project to minimise implementation problems or unintended consequences and/or maximise impact in the remaining time available?

Findings

There have been no unanticipated GOI policy changes during the project period to date which have impacted upon the project. There may have been changes in the donor environment, particularly in respect of bilateral engagement, as a result of the international financial crisis of 2008.

LEQs 2 and 3 have already referred to the disappointing outcome from *Perpres* No 29/2009 for GOI support to lending for water supply by commercial banks, of which so much was expected during the design of IUWASH. As of October 2013, only five credit guarantees had been issued to participating banks, including just one in 2013, whilst a total of 74 PDAMs are currently participating in the

process at various stages[39]. Essentially, this means that almost all investment in water supply since the beginning of IUWASH has come from the APBN (MPW – through the co-ordinated tasks (*tugas pembantuan*) channel, and MOF – through the DAK channel), local governments through the APBD, IndII through the *hibah* channel, and PDAM internal cash generation.

The Perpres expires at the end of 2014, without any confirmation that it will be extended or whether the administrative process within the Ministry of Finance (MOF)[40] for establishing the partial credit guarantee with the lending institution, which is the real obstacle, will be revised and made quicker. In fact, there are rumours that the Perpres will not be renewed, or may be renewed without the 40% partial credit guarantee from the central government, which might well amount to the same thing. This would probably put an end to sustainable commercial bank lending unless local governments are prepared to provide guarantees, as they may be permitted to do under planned changes to local government borrowing arrangements in the revisions to Law No 33/2004 on the fiscal equilibrium between central government and the regions.

An alternative means of financing water supply could exist through the Government Investment Unit (*Pemerintah Investasi Pusat* – PIP), a GOI sovereign wealth fund. The PIP currently lends to local governments for non-creditworthy PDAMs which are outside the scope of the Perpres, leaving it to the borrowers to make their own arrangements with their water supply enterprises. The PIP does not engage in competition with MPW, the budget holder (SKPD) for the *Perpres* interest rate subsidies. In any case, it is understood that MPW will withhold grants to creditworthy PDAMs accessing loan funds other than through the *Perpres*.

Informal information obtained concerning the draft revision to Law No 33/2004 on the fiscal balance between national and regional governments suggests that the most significant change to the sections on regional government borrowing will be allowing local governments to pledge their discretionary revenues (PAD, DAU, DBH) as loan collateral. This will undoubtedly stimulate domestic banks unto considering local governments as more attractive borrowers, but it may take some further time for local governments and their DPRDs to consider borrowing for investment, as well as to regard water supply as an important sector in urban infrastructure service deliveries and a pre-requisite for improved sanitation and hygiene.

All the above effectively means that GOI has yet to find a sustainable means of financing water supply investment since the collapse of the MOF on-lending and *rupiah murni* lending mechanisms during the financial crisis of 1998. This aspect will be investigated further through the add-on in Contract Amendment No 8 which will examine potential mechanisms for accessing capital investment funds for water supply finance.

A further unanticipated but positive change was the acceleration of the progress in the development of the sanitation sector through PPSP. This has already been discussed in LEQ 3.

Expanding access to PDAM water supply has been frequently hampered by difficulties of raw water availability. This is a familiar problem in Indonesia but it has been particularly severe during the IUWASH activity to date. Issues have included the ability for cities to conclude sustainable raw water agreements with their *kabupaten* neighbours, the unwillingness of agricultural communities to accept agreements even after these have been formally reached between local governments, raw water main alignments, turbidity of surface water due to deforestation, and infiltration of sea water into water sources at urban locations in coastal areas. Lack of raw water has an immediate negative impact on access to piped water for households in low-income areas, as these are the first to have

[39] Ref Cipta Karya Status Report on Perpres 29 loans, October 2013

[40] Ministry of Finance Decree No 229/2009 on Implementation Arrangements for Providing Guarantees and Interest Rate Subsidies by GOI for Accelerating the Availability of Drinking Water

their supply restricted or the last to be connected in the event of raw water shortages[41]. Given the achievements of IUWASH in increasing domestic service ratios in spite of raw water availability issues, it might be interesting to analyse the impact on unit domestic water consumption at those PDAMs with raw water supply constraints.

Other issues have been local government election impacts or the proximity of such elections, personnel changes at local government level and delay or failure of local governments to approve tariff changes. Of course, all these are potential problems which are to be expected by implementing consultants, but they are nonetheless disruptive.

SEQ 3c. What is the relationship between PDAM performance and improved governance and responsiveness to customers?

Improved internal PDAM governance intrinsically promotes greater accountability and good management which in turn should lead to better performance. PDAM responsiveness to its customers should result in a higher degree of service user satisfaction and therefore a better relationship between PDAMs and their local government owners, as well as between the head of local government and the DPRD. Involvement and informed consent of consumers are essential for good governance and securing full cost recovery tariff increases to enable PDAMs to maintain a sustainable service and to increase service coverage . These relationships, in turn, produce more trust between the local government, its elected representatives and PDAM, and thus a greater understanding by these parties of PDAM's needs for justifiable, regular tariff increases and equity investment assistance through the APBD, where appropriate, in order to produce a better water supply service.

Findings

The PDAM performance index developed by IUWASH is a very useful tool for improving PDAM performance as well as for informing stakeholders of progress in increasing good governance through its indicators and scoring mechanism. It was noteworthy that the baseline scores of most PDAMs visited in South Sulawesi and North Sumatra provinces, agreed by IUWASH with the PDAMs at the beginning of the cooperation, were below those of their counterparts in the Java provinces, some considerably so. Even after one or two years of progress with IUWASH, some of these utilities remained below the original 2011 Java PDAM baseline scores. Especially in North Sumatra Province, staffing ratios per 1,000 connections are extremely high[42], due to a tendency on the part of heads of local government to use their PDAMs as employment parking lots for political purposes. In general, scores for governance, consumer relations and human resource development in this province were very low, PDAM Medan being a notable exception. However, it is noted that the provincial government of North Sumatra is now injecting management skills into some of the PDAMs through transfers of staff from PDAM Medan, of which it is the owner.

A review of the performance index of PDAMs visited suggests that those PDAMs with endorsed business plans, a complaints department, instalments arrangements for new connections, customer satisfaction surveys commissioned, fit and proper tests for the managing director and training programmes, are usually achieving full cost recovery or are close to reaching this level, even if they do not always receive the tariff revision package requested from the head of local government. IUWASH PDAMs in South Sulawesi and North Sumatra provinces will require time to achieve good

[41] As has happened in the case of the Master Meter Programme in Belawan District, Kota Medan

[42] In Kota Binjai, the ratio was still about 15 at the time of the MTER team visit; it had been higher than 20 prior to IUWASH intervention at the request of the new mayor.

levels of governance, although there are clear signs that, even after only one year of collaboration with IUWASH, PDAMs in these provinces are making improvements.

The MTER team considers the contribution made by IUWASH to good governance at PDAM Sidoarjo in East Java Province, in terms of internal management, relationships with the local government through the supervisory board (*dewan pengawas*), its customer relations group, and combined networking with customers and the community generally, to have been a striking success. Just about all the relevant boxes in the PDAM performance index can be checked in terms of periodicity of customer satisfaction surveys, relationships with low-income groups, availability of a complaints mechanism, transparency and accountability towards customers and owners, completeness of standard operating procedures (SOPs), and staff training and capacity building. The relationship and interaction between the PDAM, the supervisory board and the recently established customer forum were particularly impressive.

Recommendations

IUWASH should study the governance and management processes introduced at PDAM Sidoarjo and determine how these practices can be best adapted for introduction to other water utilities. Of particular relevance, as a result of visits by the customer forum to unconnected as well as connected households in Kabupaten Sidoarjo, is the independent[43] conclusion that availability of water is indispensable for sanitation at point of use. It has been noted that some water-related issues of health and hygiene cannot be resolved by PDAM alone; these need to be comprehensively addressed by means of co-operation by all other related local government agencies, such as the health, solid waste cleanliness, environment and embryonic wastewater institutions, and to include the PDAM as a partner in the process.

There may be a risk of some of the PDAM governance reforms not being brought to fulfilment. One such issue is the need for formal endorsement of PDAM business plans by the head of local government to ensure that the plans are carried out as presented. Another is the finding from field visits and the PDAM performance index that some of the fit and proper tests for the appointment of PDAM directors have been conducted by local government and not by independent committees, such as universities or other professional bodies; likewise for the selection of members of the PDAM supervisory board.

SEQ 3d. Prior to IUWASH, USAID has funded TA to improve PDAM performance for many years, including most recently under the ESP. Based on this past programme experience and recent developments in the water supply sector in Indonesia, does the IUWASH experience suggest specific criteria for determining when such assistance can be phased out with particular PDAMs or the sector as a whole?

Lessons Learned

A very significant and unique linkage of IUWASH compared with other donor activities is its outreach to and extent of coverage in the regions, not only in respect of water supply, but also sanitation and related environmental health issues. USAID might consider it inappropriate to dispense with the several years of accumulated experience by exiting substantially, let alone entirely, from the water supply sector at this stage of its involvement because of the sector linkages. PDAMs and their local government owners were also canvassed during the field visits as to their ability to progress without USAID technical assistance after the close of the current programme. Without

[43] i.e. not prompted by IUWASH

exception, and perhaps unsurprisingly, they pressed for an extension, particularly in respect of additional HRD strengthening and advocacy with local government. Nevertheless, it might be appropriate at this point in time to consider adjustments to USAID's focus towards the sector, including withdrawal from specific areas of engagement.

Recommendations

It is recommended that the guideline for withdrawal by USAID from the water supply sector should be the attainment of creditworthiness by PDAMs. Creditworthiness is defined here as the ability of a PDAM to produce and justify a bankable business plan as the basis for obtaining commercial credit. This criterion is somewhat different to the less rigorous requirements of *Perpres* No 29/2009, which defines PDAM creditworthiness as (i) being certified as "healthy" by the Government Finance and Development Supervisory Agency (BPKP) in its annual performance audit, (ii) having a full cost recovery tariff, also as certified by BPKP, and (iii) being regular in debt service on loans from MOF or having agreed to enter into a debt restructuring programme.

Applying the bankability definition, IUWASH has developed a creditworthiness programme with an eventual target of 20 PDAMs. The module uses indicators based on data from the PDAM performance index for financial and other areas of business risk[44]. Each indicator is updated every 6 months in a table with 5 levels of development from unhealthy to healthy. Each level of ranking is scored from 1-5 and the results weighted to provide a shadow rating ranging from a high of A plus to a low of D minus. The qualifying target is B plus which would equate to an agency rating of B double minus. This is a first attempt in Indonesia to design a creditworthiness model.

The performance of PDAM Kabupaten Kendal or PDAM Kota Surakarta will be used as the pilot rating for creditworthiness, and the module for this PDAM will be sent to Pefindo, a national credit rating agency, early in 2014. Pefindo will then make recommendations on the IUWASH creditworthiness ladder, which IUWASH will incorporate in its ratings for the other PDAMs in its portfolio. A workshop will be held with participating PDAMs before the middle of this year, after which IUWASH will continue the 6-monthly rating revision exercise until the end of the project.

By September 2013, 16 PDAMs were being evaluated under the IUWASH creditworthiness programme and four of these already showed an improved creditworthiness rating, whilst five had already attained a qualifying B plus rating. The remaining PDAMs will be added and evaluated progressively over the balance of the programme.

It is also suggested that IUWASH should put on notice those PDAMs and their local government owners where PDAM performance continues to be unsatisfactory, notwithstanding IUWASH assistance. The MTER team has identified three such PDAMs where it was concluded that further inputs of IUWASH resources were not being productive[45]. If these notices result in their withdrawal from the project of these units, the IUWASH contract may require an amendment to reduce the targeted number of PDAMs, in the event the time remaining in the project is insufficient to begin with replacement PDAMs.

[44] The individual indicator categories (each with its own set of sub-indicators) are: (i) debt management, (ii) tariffs and profitability, (iii) cash flow, (iv) customer base, (v) raw water management, (vi) technical operation, (vii) governance and policy, and (viii) management and human resources development.

[45] These were: (i) PDAM Kota Mojokerto, in East Java Province, which is technically bankrupt, where the local government is illegally providing operating subsidies, including salaries. The DPRD has refused a proposal that the PDAM and its customers should be absorbed by PDAM Kabupaten Mojokerto; (ii) PDAM Kabupaten Pinrang in South Sulawesi Province which is also insolvent and without a remedy for restructuring its debt default; and (iii) PDAM Kabupaten Langkat, where the head of local government has declined to act upon an IUWASH-designed debt restructuring programme.

SEQ 3e. Unlike utility-based water service provision, with its well-defined cost recovery-based sustainability criteria, what constitutes "sustainable urban sanitation provision" in Indonesia is currently less clearly defined. Are IUWASH sanitation interventions on institution building (i.e. UPTD), faecal sludge management and communal sanitation facilities sufficiently helping to define clear criteria and standards that will ensure sustainability in the Indonesian context? If not, how can they be improved?

Findings

There is a limited number of local governments where sludge management is managed by the PDAM. Otherwise, in the majority of cases, responsibility for wastewater, including sludge management, is allocated to a division (*bagian*) or sub-division (*subbagian*) within a service department (*dinas*), depending on the head of local government's perception of the priority which should be accorded to wastewater. Budget appropriations, staff positions and salary grades, and educational and experience qualifications of staff are a consequence of the location of the activity within the local government organization. Overall, the MTER found that most sanitation units in local governments visited during the field trips were underdeveloped in terms of activities, budget provisions and qualified personnel. Some local governments did not even have a sanitation function[46].

The number of sludge tankers operated by these institutions are few, with most such services being provided "on call" by private sector operators, both licensed and (more often) unlicensed by local government health departments. Sludge treatment plants (IPLT) are managed from within a *dinas*, although there is usually no enforcement for the sludge tanker operators to bring the sludge to the IPLT, and illegal dumping to the environment (fields, water courses, etc) is the norm rather than the exception. The result of these conditions is that, in addition to environmental degradation, the IPLTs are under-utilised and, for the most part, inadequately maintained for lack of local government budget support.

MPW now requires local governments to have established a technical service unit (UPTD) before it will finance construction or renovation of sludge treatment plants. This is a sound move and reverses the previous practice of putting hardware before software. However, much more will be needed to ensure the sustainability of the sanitation sector. The most important elements for sustainability are considered to be: (i) regulation, (ii) institutional arrangements, including financial and human resources, and (iii) integration of sanitation activities, including cooperation with other local governments with environmental health and hygiene-related responsibilities.

Recommendations

First and foremost, in order to provide a firm platform for sustainability, it should be a prerequisite that local governments take formal ownership of the sanitation sector. This is best done by IUWASH providing advocacy to and mentoring for the head of local government so as to ensure that support for the sector is included in his/her vision and mission speech as the incoming head of local government or in the annual policy speech to the local government legislature (DPRD). Approval by the DPRD provides the pathway for inclusion of sanitation implementation plans and associated funding requirements in the Five–Year Development Plan (RPJMD), followed by the disaggregation into the annual local government budgets (APBD).

Plans and their implementation should be supervised by the formation of a high-level local government *pokja* headed by either the head of the development planning agency (*ketua* BAPPEDA)

[46] e.g. Kabupaten Sidoharjo and – surprisingly - Kota Semarang, in Central Java Province, Kabupaten Lamongan in East Java Province, and Kota Pare Pare, and Kabupatens Maros, Bantaeng and Jeneponto in South Sulawesi Province.

or the secretary (*sekda*), the latter being the highest-ranked local government civil servant. The other members of the *pokja* should reflect those agencies involved in sanitation linkages and include the head of the department to which the head of the UPTD (ref SEQ 1c and paragraphs below) reports – probably cleanliness (kebersihan) or public works, plus the heads of the health and education departments, the environment agency *(badan lingkungan hidup* - BLH*)* and, crucially, the PDAM director because of the a priori requirement for availability of water to enhance access to improved sanitation. The head of the education is included because of a perceived need to initiate triggering in the school, as well as in the home through health department sanitarians. The head of the UPTD might act as secretary of this *pokja*. The *sekda*, briefed where appropriate by the head of BAPPEDA, should be responsible for periodic reporting to the head of local government. A head of local government decree (*perwali* or *perbup*) may be required to establish this *pokja* rather than a decision letter (*surat keputusan* – SK).

Detailed planning work, such as the preparation of project memoranda, should be carried out by a subsidiary working level *pokja*, ideally including members of the *pokja* AMPL involved in drawing up the city sanitation strategies (CSS), and certainly Echelon III and IV staff from all the departments represented in the higher level *pokja*, including an equivalent level member from the PDAM. The head of this lower-level *pokja* might be the head of the spatial planning division of BAPPEDA or the head of the UPTD; at any rate, the head of the UPTD should be included to provide a necessary connection with the supervising higher level *pokja*.

IUWASH should provide assistance to local government in drafting the tasks, responsibilities and functions (*tupoksi*) of the UPTD which should be incorporated in a head of local government regulation (*perwali* or *perbup*) to ensure that the new organization has comprehensive responsibility for the management and administration of wastewater infrastructure and installations, including: (i) a database of locations of household sanitation installations – a most crucial preliminary task, (ii) oversight of systems operated by community organizations, (iii) management and operational responsibility for local government-owned decentralised small-bore sewerage systems, and (iv) management of household faecal waste desludging, transportation to and disposal at the IPLT[47]. These *tupoksi* should result in the UPTD being established as a local government authorised budget user (SKPD) due to its management of infrastructure. The head of the UPTD will report directly to the head of *dinas* and, in view of the responsibilities assigned, should be in a position to have a strong voice in annual APBD preparation and allocation for wastewater activities, and the ability to establish lateral relationships with other local government departments concerned at equivalent levels. Consequently, such a person should hold an Echelon III grade, as provided for by national government regulation[48].

The UPTD and the local government spatial planning department (*Dinas Tata Ruang*) should be provided with IUWASH assistance in the drafting of a revised regulation requiring that all submissions for new building permits, including those for residential buildings, should contain provisions for adequate sanitation disposal. The UPTD should also be involved in the review process of all such permits.

Once the regulation for the UPTD has been issued, IUWASH should assist the new organization to (i) produce standard operating procedures, (ii) write job descriptions, (iii) develop a business plan which should be formally endorsed by the head of local government to ensure that the funding requirements of the UPTD are incorporated in the annual budget, (iv) foster lateral relationships with other local government organizations concerned (PDAM, the health and education departments

[47] IUWASH should make strenuous efforts to ensure that the various sanitation (wastewater) responsibilities are integrated within a single institution. There were indications in the course of the field visits (e.g. Kota Medan) that vested interests might make this difficult to achieve.

[48] PP No 41/2007 on Local Government Organization

and environment agency), ideally through an improved *pokja* AMPL structure, and (v) fulfil other substantive, technical and administrative criteria required for efficient management[49] and, indeed, any future upgrade to a BLU-D, and (vi) fulfil its *tupoksi*.

A further task should be the provision of guidance to local governments for a regulation (*perwali*) on sludge management which will require periodic desludging of all septic tanks, i.e. implying the abolition of the existing informal "on-call" system. It is recommended that, even though regulated, the actual desludging and transportation of sludge to the IPLT should be left to the private sector, but that tanker operators should be licensed, probably by the Health Department. Many areas within urban areas are not accessible by trucks, and the use of mobile desludging machinery attached to motor cycles[50] should be encouraged. The scheduling of desludging services should be managed by the UPTD, with the local government responsible for paying operators for the services, irrespective of funding arrangements. IUWASH should discuss with local governments and tanker operators the pricing of the service[51] and the operation of a roster of service providers which does not discriminate between them.

An essential element of this activity is to ensure that sludge is taken to the IPLT and discharged and treated in an environmentally appropriate manner. Contracted tanker operators should only be paid by the local government treasury upon production of a signed receipt as proof that the sludge has been delivered to the IPLT.

A local government regulation (*perda*) will be required for the desludging tariff and for centralised and decentralised communal sewerage systems where the service will be managed and operated by the local government[52]. In the case of sewerage systems, methods of invoicing and collection will need to be determined.

The law on local government taxes and service charges[53] (*retribusi*) either requires or recommends that service charges should not be based on full cost recovery. The MTER team proposes that the ultimate objective of the service charge to household service users should be full cost recovery of annual O&M[54] (*biaya langsung*), with the local government absorbing staff salaries and fringe benefits (*biaya tidak langsung*). Communal sewerage systems will likely continue to be funded by central government grants, whilst the private sector tanker depreciation element of the desludging could be funded by the local government through the service charge.

The vehicle for local government subsidies should be the annual land and buildings property tax (PBB), which is now or will be, depending on the pace of local government management capacities, administered by the local government[55]. It is internationally recognised that the rationale for a property tax is that it should be used primarily for establishing or improving local government urban infrastructure service deliveries. These service deliveries will enhance property values which, in turn, will result in higher property tax revenue yields, etc, etc. Most local governments are currently engaged in capacity-building, including the updating of property registers, for efficient administration of the PBB.

[49] Ref Ministry of Home Affairs Decree No 61/2007 on Local Government Public Service Agencies

[50] A machine such as that used in Belawan District of Kota Medan, furnished under a USAID grant and operated by a community-based organization, should be publicized at national level as an example for replication.

[51] Possibly as a function of investment costs and distance travelled

[52] Or, in the case of a centralized system, possibly by the PDAM

[53] UU No 28/2009 on Local Government Taxes and Service Charges

[54] Say, by year 2020

[55] UU No 28/2009

Local governments vary in size, stage of development and capacity. What works in one local government may not work in another or may require some degree of modification. Nevertheless, it is very important that experiences are shared between the IUWASH regional offices. The IUWASH head office should manage this sharing of experiences.

In order to monitor the progress of the sanitation sector in each local government, IUWASH should begin the development of relevant performance indicators. Since the sector is in the early stages of institutionalised evolution, these should not consist of the detailed and weighted quantitative measurements already reported in the IUWASH PDAM performance index, but rather broad qualitative indicators which will provide degrees of confidence in the direction in which the sector is progressing, such as: (i) status of related regulations, (ii) establishment of UPTD, (iii) numbers of people reported with diarrhoea and other water-borne illnesses, especially in the under-five category, (iv) instances of school absenteeism, (v) impact on related local government and household health expenditure, etc.

The National Water and Sanitation Index, developed by the Dutch Government-funded and World Bank-managed Water and Sanitation Programme (WASAP), and now being used by AKKOPSI, might provide useful indicators for this task. BAPPENAS, which is currently the custodian of the index, should be consulted about any such arrangements.

SEQ 3f. In USAID/Indonesia's new Country Development Strategy (CDCS), WASH will fall under the health development objective. Is there potential for the current IUWASH project or future USAID investments in WASH to contribute to health targets (i.e. reduction of U5CM due to diarrhoea)?

Findings

IUWASH's hygiene behaviour activities include three of the five pillars in the GOI MOH community –based total sanitation (STBM) programme: hand washing with soap at critical times, use of basic sanitation, good household water management, including treatment and safe storage[56]. A significant barrier in promoting adoption of improved sanitation in IUWASH's target population is the fact that MOH's STBM programme is not well-suited for urban populations.

IUWASH has been working with sanitarians in support of the health objective of eliminating open defecation and promoting access to household level improved sanitation, which is one of the five pillars of the STBM. Two of the remaining four pillars (hand washing with soap and household water treatment) are currently monitored in the Project Monitoring Plan (PMP), but the MTER team feels that these are outside of IUWASH's core competencies and manageable interest. This does not necessarily mean that sanitarians cannot still implement all five pillars of STBM, but IUWASH's intersection with hygiene behaviours is in the development of urban sanitation, implying that the institutional partners IUWASH is working with on increasing access to drinking water and improved sanitation are not the ones that are responsible for changing hygiene behaviour in households.

Recommendations

The MTER team recommends that IUWASH should continue to support training of sanitarians on the full STBM programme, but should drop the indicators for the other two hygiene behaviours (hand washing with soap, and household water treatment and safe storage) and focus on measuring

[56] The other two STBM behaviours, drainage and solid waste, are not included in IUWASH's mandate due to USAID's limitations associated with the type of funds.

correct, consistent, and sustained use of improved sanitation facilities, with the Ministry of Health and other relevant institutions as the urban sanitation sector evolves.

For this purpose, IUWASH will need to establish good communications at the level of the Director General of Environmental Health at MOH in order to develop a better understanding and greater leverage on policy and engagement strategy related to sanitation. The IUWASH current point of entry at MOH is only at Echelon 3 (deputy director - *kasubdit*) - level. The recommended approach may require a higher-level staff member of the project to be involved in order to facilitate the opening of this communication channel at the director general level, thus permitting technical staff members to proceed with detailed activities at the deputy director and section head levels.

The current strategy of involving sanitarians at project sites through community health centres (*puskesmas*) is good, but can only be properly implemented if the clinics are provided with clear targets set by MOH and sufficient budget allocations by the local government health departments, which need a greater degree of empowerment if they are to play more a pivotal role in *kota/kabupaten* BCC and sanitation strategic implementation.

5. PROPOSALS FOR FURTHER INVESTMENT BY USAID IN THE WATER AND SANITATION SECTORS

5.1 CONTRACTUAL TARGETS

The MTER team questions whether the current methods of measurement whereby contractual targets are set are entirely appropriate and whether they should be adjusted for follow-on programmes. At present, they appear to be designed to maximise the number of outputs (e.g. beneficiaries, new policies, new institutions, etc). Such an approach is not necessarily conducive to balanced national development in the water and sanitation sectors, nor should "outputs" be considered as synonymous with "outcomes". The establishment of targets should pay more attention to sustainability.

Some 40% of local governments and PDAMs being assisted under IUWASH are cities, with more than 50% of these cities located in Java, even though only 92 (18%) of 506 local governments in Indonesia are *kota*. All the evidence suggests that it is the regions outside Java which are most in need of development assistance. Clearly, if quantitative outputs continue to be the focus of USAID's valuations, regional imbalances in the sectors will only become more pronounced until, at some point in time, the marginal returns from technical assistance to local governments and PDAMs in Java start to decrease.

Examples of the need to measure sustainable outcomes against outputs might include:

- Satisfaction with service deliveries (outcomes) from recently established institutions (outputs)
- Ability to repay loans on schedule (outcomes) from micro-credits or water supply investment loans obtained (outputs)
- Reductions of sanitation-related illnesses or increases in school attendance (outcomes) following training in IUWASH sanitation activities (outputs)

Since outcomes require much more time to mature than do inputs, a further evaluation to take outcomes into account is recommended before the end of this IUWASH programme and before the design of the follow-on project is finalised.

The specific proposals made below are offered with the above considerations in mind. However, they do not take into account any USAID funding constraints.

5.2 PDAMS

Technical assistance should be withdrawn from those PDAMs achieving creditworthiness by the end of IUWASH. It should also be thinned out for PDAMs which have made progress towards this status, based on a target to be defined by the IUWASH creditworthiness model, with particular attention towards reducing the level of support to Java PDAMs. The next phase should look towards assisting more PDAMs in regions outside of Java, although it is acknowledged that this will involve additional logistical costs.

The primary focus should be on business plan preparation and implementation. The asset management approach (energy efficiencies, non-revenue water (NRW) reduction, distribution network improvements, production capacity improvements, etc) of the current IUWASH

programme should be maintained and made a part of the business plan, as should tariff revision strategies, PDAM internal management and good governance success stories, and water for the poor arrangements.

Approaches to sources of loan funds for water supply need to be put on hold until such time as GOI brings forth a new or revised policy. The MOF implementing decree for *Perpres* No 29/2009 in its present form is clearly failing to provide a properly functioning funding mechanism. Currently, there is much uncertainty over whether the *Perpres* will be renewed when its validity expires at the end of 2014, which will have a negative impact on commercial bank lending for the water supply sector. Design of the next phase should take account of: (i) the revision, already in process, of Law No 33/2004 on the fiscal balance between the national government and regional governments, and (ii) the planned establishment of a water supply and sanitation finance facility within the Government Investment Agency (PIP).

Debt restructuring should be dropped as an activity from the next phase of water supply technical assistance. The MOF regulatory window for rescheduling submissions has now been closed. It is likely that MOF will take other, possibly more drastic measures to secure recourse for those PDAMs which have not made proposals.

5.3 WASTEWATER

Whilst IUWASH has achieved good results to date, it is only with the issue of Contract Modification No 8 that the real task can begin of embedding wastewater as an efficient urban service delivery. SEQ 3e makes recommendations for the pathway to be followed in creating a local government institution responsible for all aspects of wastewater, with the possible exception of centralised sewerage systems currently being managed by PDAMs. Designers of follow-on wastewater activities may wish to wait until evidence of progress made against Contract Modification No 8 before making plans for further investment in the sector. The slow pace of local governments in undertaking policy and institutional reform should not be underestimated.

At this stage, it is assumed that IUWASH will achieve its target of assisting local governments in establishing at least 10 UPTD. The next phase will require capacity-building of these units in terms of asset and operational management, business plan and budget preparation and financial management, and the various planning activities. Modifications to the institutional arrangements already recommended in the response to SEQ 3e, based on experience, will almost certainly have to be made prior to proceeding with the formation of additional units. Lessons will need to be absorbed by the designers.

Because of linkages with other local government service deliveries, wastewater planning and budgeting should be co-ordinated with those of other organizations such as the PDAM, public works and cleanliness departments, health and education departments, and the environmental agency. This might best be achieved under the stewardship of BAPPEDA or the local government secretary in the form of a high level *pokja*. The *pokja* should be a robust institution and not an ad hoc arrangement with an ever-changing composition of low-level (*eselon kosong*) local government officials. It should also supervise the activities of those taking SSK to the implementation stage. Cooperation from heads of local government may be required to ensure the establishment and effectiveness of such an organization.

5.4 MICRO-CREDIT

The MTER team has reservations concerning the need for a strong focus on micro-credit in the next phase. Difficulties in the current IUWASH programme have been documented earlier. Given the intensive efforts evidently required with financial institutions to establish an effective and efficient micro-credit activity, it might be more productive to evaluate the utility of assigning this to a dedicated programme, as opposed to integrating it within water and sanitation sector activities and risking the dilution of resources.

5.5 SOLID WASTE

During the field visits, several local governments[57], being unaware of the differences between the GOI definition of sanitation and that of USAID and the international community[58], asked if the next stage of USAID technical assistance could make provision for a solid waste activity. Requests concern technical assistance with closure of existing landfills based on open dumping and design of new sanitary landfills, as well as with development and implementation of reduction, reuse and recycle (3Rs) activities. At Kabupaten Sidoarjo, in East Java Province, the PDAM customer forum is already pro-active in encouraging communities not to throw solid waste into water courses.

USAID uses the faecal oral transmission approach for their Diarrhoea Prevention Programme. However, in tropical countries like Indonesia, unsatisfactory methods of solid waste disposal, both at source of generation and at point of final disposal attract flies and vermin and are a cause of food and other forms of contamination. This, in fact, is the rationale for the GOI definition sanitation.

5.6 NETWORKING WITH CENTRAL GOVERNMENT STAKEHOLDERS

Whilst the follow-on programme would continue to liaise with BAPPENAS and MPW, it is felt that considerable benefit would be derived from closer co-operation with MOH in the fields of policy and strategy as they relate to sanitation in general and for evolving an STBM for urban community sanitation in particular. Parallel approaches could also be made to the Ministry of Education regarding the introduction of BCC topics into school curricula, although it is understood that local government education governments could take such action independently of the ministry.

Until now, IUWASH has been following national matters concerned with local government organization through an IndII activity located at the Directorate General of Regional Development (*Bangda*) in MOHA. The overall IndII programme is scheduled to end in 2015, and USAID might wish to consider a closer engagement directly with the ministry in the follow-on project to IUWASH in respect of institutional development. The design should therefore review the revision to Law No 32/2004 on regional government which is on the current agenda of the national legislature (DPR), although it is unlikely to be passed before the mid-2014 national elections. This review should focus on changes relating to UPTD, BLU-D, *pokja* and other institutional issues relating to local government organization.

[57] e.g. Kabupaten Sukoharjo,in Central Java Province, Kabupaten Lamongan in East Java Province, Kota Tebing Tinggi, Binjai and Tanjung Balai in North Sumatra Province, and Kota Pare Pare in South Sulawesi Province

[58] Ref Footnote No 1

APPENDICES

APPENDIX 1
EVALUATION SCOPE OF WORK

Mid-Term Evaluation Scope of Work

USAID/Indonesia's Indonesia Urban Water, Sanitation and Hygiene (IUWASH) Project

I. BACKGROUND OF PROGRAM TO BE EVALUATED

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 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 (Results Framework in Annex C). 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.

To achieve these intermediate results, the IUWASH scope of work specifies a number of required tasks and "outcomes" (or results) with associated minimum targets. The IUWASH contractor proposed and USAID/Indonesia approved a Performance Monitoring Plan (PMP) to track achievement of the three overall, higher level expected results and the scope of work's 15 specified intermediate outcomes. In addition to defining specific indicators and methods of calculation to track these results/outcomes, the current, approved PMP includes two additional overall, higher level results from USAID's DQA process in 2011, i.e., percent of households gaining access to improved

drinking water source as a result of USG assistance, and percent of households gaining access to improved sanitation facilities as a result of USG assistance.

Since the inception the project has undergone one significant modification to its approach that includes the disaggregation of water and sanitation implementation. This disaggregation allows for focused and appropriate assistance along national government institutional lines, for instance water supply to PDAMs and sanitation to UPTDs.

II. PURPOSE AND UTILIZATION OF THE EVALUATION

The purpose of the evaluation is to:

1. Determine whether the IUWASH contractor is meeting the expected results and outcomes agreed to in the Performance Monitoring Plan; and
2. Estimate the extent to which the development hypothesis (Results Framework) is valid.

The timing of this evaluation is propitious for both making mid-term changes in IUWASH implementation as well as for providing input toward future program design. Therefore the evaluation should produce two sets of recommendations for USAID. The first set should provide specific recommendations for mid-course corrections to the IUWASH project. The second set of recommendations should provide USAID with recommendations to take into consideration for future investments in the water and sanitation sectors when IUWASH has concluded. When the final evaluation report is produced, two versions will be produced – an internal USAID only version which contains the recommendations for future investments and an external version that is available to the public which does not contain this section.

III. EVALUATION QUESTIONS

The Evaluation Team will answer the following three questions and as many sub-questions as possible using them as guides to specific aspects of interest in the program:

1. What are the major IUWASH accomplishments and weaknesses to date and what implementation changes should be made in response? Additional questions include:
   a. Does the project have a clear evidence-based behavior change theory of change and/or approach? What are the barriers to including behavior change programming into the sanitation strategic action plan and sanitation activities? What has made it successful in some areas?
   b. What has been the cost effectiveness of this project? Cost/beneficiary? How does it compare to other investments and what could be done to reduce costs?
   c. Since water and sanitation implementation has been disaggregated in their respective institutions is there any instances where the water and sanitation implementation has had integrated implementation? Has it been complementary or harmful? What recommendations can be made for or against integrated programming here in Indonesia?
   d. To what extent has the project been able to facilitate household access to microfinance for WASH improvements, and what are the lessons learned from this component?

2. Are all expected results likely to be achieved by the completion of the project and, if not, what changes in targeted results and/or implementation approaches should USAID/Indonesia consider? Additional questions to consider include:
   a. Are the indicators identified as contributing toward achievement of the USG standard foreign assistance indicators and Government of Indonesia water and sanitation indicators correctly specified? If not, how can they be improved?
   b. Is the project reaching the desired beneficiaries?

c. Is achievement of the higher level access indicators sufficiently attributable to US Government assistance? If not, how might IUWASH improve appropriate attribution of results?
d. Is there evidence of IUWASH impact on PDAM performance when comparing all or some of the components of the PMP indicator describing the "number of PDAMs with improved technical, financial and management performance" between IUWASH-assisted PDAMs and those that IUWASH is not assisting? Examine a set of key performance indicators to compare performance IUWASH and non-IUWASH assisted PDAMs.
e. Are the sanitation sector targets appropriate and/or should new targets or intermediate results be included for IUWASH's new sanitation focus (such as UPTD establishment or SSK development)?

3. What evidence is there for the validity of the overall development hypotheses or critical assumptions underlying the project design, and ensuring the sustainability of them?
   a. How well are the three project components (i.e. demand, capacity, enabling environment) linked to each other and how has this affected success?
   b. Have there been any unanticipated changes in the host country or donor environment that suggest the need for changes in emphasis in the IUWASH project to minimize implementation problems or unintended consequences and/or maximize impact in the remaining time available?
   c. What is the relationship between PDAM performance and improved governance and responsiveness to customers?
   d. Prior to IUWASH, USAID has funded technical assistance to improve PDAM performance in Indonesia for many years including most recently under the prior Environmental Services Project (ESP). Based on this past program experience and recent developments in the water supply sector in Indonesia, does the IUWASH experience suggest specific criteria for determining when such assistance can be phased out with particular PDAMs or the sector as a whole?
   e. Unlike utility-based water service provision with its well defined cost recovery based sustainability criteria, what constitutes "sustainable" urban sanitation service provision in Indonesia is currently less clearly defined. Are IUWASH sanitation interventions on sanitation institution building (i.e. UPTD), fecal sludge management and communal sanitation facilities sufficiently helping to define clear criteria and standards that will ensure sustainability in the Indonesian context? If not, how can they be improved?
   f. In USAID/Indonesia's new Country Development Cooperation Strategy (CDCS), WASH will fall under the health development objective. Is there potential for the current IUWASH project or future USAID investments in WASH to contribute to health targets (i.e. reduction of U5CM due to diarrhea)?

IV. EVALUATION METHODOLOGY

This evaluation is a mid-term performance evaluation proposed to be conducted in both Indonesia and the home base of the evaluation team members over a total of 8 work weeks beginning on or about 7 October 2013 and continuing through the end of November. The Evaluation Team will use the following general methodology to conduct the evaluation.

Document Review: Team members will review the IUWASH Statement of Work, Performance Monitoring Plan, quarterly and annual reports, and other relevant documents (especially key documents related to on-going or planned GOI sector investment plans and donor projects).

Data Analysis: Team members will analyze IUWASH PMP results and document and analyze the information gained from key informant interviews and site visits in order to inform their findings and recommendations. In addition, a select number of Team members will conduct a comparative

analysis of PDAM performance, including expansion of their customer base, between those utilities assisted by IUWASH and a comparative sample of those in the country not being assisted by IUWASH to examine the correlation between performance and IUWASH support.

Key Informant Interviews: The team will conduct interviews and focus groups with a representative number of stakeholders including national and local level government staff, USAID staff, other donors, IUWASH grantees, IUWASH project staff, and project beneficiaries ensuring representation from all necessary sectors of water, sanitation, hygiene, health, governance, and the environment.

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 a limited number of site visits in order to collect data to 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.

V. COMPOSITION OF EVALUATION TEAM

The Evaluation Team shall consist of at two to three professionals with 10+ years of experience in water and sanitation programming in low-income countries, in addition to a team leader independent of USAID. The team shall also include a translator/interpreter.

The required areas of subject matter expertise that should be represented on the team correspond roughly to the technical foci and implementation context of the project being evaluated:

1) Social communications for behavior change especially related to sanitation promotion;
2) Water utility technical assistance;
3) Urban sanitation service delivery models applied in different developing country contexts;
4) Indonesian policies, programs and regulations related to urban water supply and sanitation services, and;
5) USAID-specific water/sanitation sector programming issues including funding regulations and requirements, water/sanitation earmark guidance and standard results reporting.
6) Maternal and Child Health, governance in water and sanitation and environment (climate change mitigation).

All team members must be fluent in English, have proven ability to interact with people from many different social and economic backgrounds, and possess excellent writing and presentation skills. The team will have combined skills and experience in rapid appraisal methodologies (interviews, focus groups, etc.), institutional analysis, and strong knowledge of Indonesia's public sector functioning and Indonesian political processes. All team members must be willing and able to travel to remote zones.

The Team composition is suggested as follows:

1. Team Leader (*sub-contracted by IUWASH*) – The team leader will serve as the primary point of contact between the USAID/Indonesia Mission and the Evaluation Team. The incumbent must:
    - Be able to communicate effectively with senior U.S. and host country officials and other leaders;
    - Have strong evaluation experience;
    - 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).
- Preferably have a strong understanding of Indonesia's water and sanitation sector

In addition the Team Leader should offer substantial expertise in two or three required subject matter expertise areas. The candidate will be selected based on the overall strength of their technical expertise, evaluation expertise, knowledge of Indonesia's water and sanitation sectors and proven ability to manage team efforts. The Team Leader will have primary responsibility for ensuring the final deliverables are completed in a timely manner and are responsive to the scope of work and Mission comments.

2. USAID/Washington Technical Expertise: 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 provide the subject matter expertise on USAID-specific water/sanitation sector programming issues and contribute to one or two of the subject matter expertise areas.

3. Additional Local Technical Expertise (*sub-contracted by IUWASH*) – To complement the technical expertise of the team leader, two additional Indonesian nationals will be recruited by IUWASH for the evaluation team. At a minimum, it is expected that these individuals will contribute particular subject matter expertise in Indonesian policies, programs and regulations related to urban water supply and sanitation services.

4. Interpreter/Administrative Assistant (*sub-contracted by IUWASH*): Minimum 3 years of experience with direct interpretations from Bahasa Indonesia to English and English to Bahasa. Experience relating to the water and sanitation sector and industry terminology is highly desired.

VI. USAID MANAGEMENT OF EVALUATION

The USAID/Indonesia point of contact for the evaluation will be Heather D'Agnes. An Evaluation Committee comprised of the IUWASH COR, a representative of the Mission Program Office and IUWASH activity managers from the DG and Health Office will be formed to respond to questions from the team, resolve administrative or logistical obstacles, and review Evaluation Team deliverables.

VII. DELIVERABLES

The Evaluation Team will be responsible for producing the following deliverables:

- Revised evaluation approach and draft schedule of field activities (prior to field work)
- Draft and final questionnaire(s) to be used during interviews/stakeholder meetings (prior to field work)
- Detailed Evaluation Report Outline with bulleted response to evaluation questions and Draft PowerPoint Briefing (at the end of the synthesis phase)
- Finalized PowerPoint De-briefing and initial full report draft (before evaluation team departs Indonesia)
- Final Evaluation Report following standard reporting format and branding guidelines (within 2 weeks of receiving Mission comments on draft report).

An illustrative outline of the Evaluation Report is provided below:

Executive Summary
The Executive Summary will state the IUWASH objectives; purpose of the evaluation; study method; findings; conclusions, lessons learned and recommendations for remaining IUWASH implementation, 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 IUWASH mid-course corrections
5. 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 are to be submitted in English in both electronic and hard copies. The Team will provide 5 printed copies of the Draft and Final Evaluation Reports and 5 printed copies of the PowerPoint presentation.

The Final Evaluation Report should not exceed 30 pages in length in its body, not including title page; Table of Contents; List of Acronyms; usage of space for tables, graphs, charts, or pictures; and/ or any material deemed important and included as Annexes. The executive summary with brief evaluation findings, conclusions and recommendations will be translated into Bahasa Indonesia and included in the final report.

The Final Evaluation Report and PowerPoint addressing the Mission's comments should be submitted in both Word and PDF formats. Once the PDF format has been approved by the Mission, the Team will submit the Final Evaluation Report to the Development Experience Clearinghouse for archiving.

APPENDIX 2
MEMBERS OF THE MID-TERM EVALUATION REVIEW TEAM

- David Woodward, External Consultant, Team Leader, and responsible for financial and institutional issues
- Nona Pooroe, External Consultant, responsible for behaviour change communication issues
- Alizar Anwar, External Consultant, responsible for infrastructure technical issues
- Anthony Kolb, USAID, Urban Health Specialist
- Rochelle Rainey, USAID, Environmental Health Specialist

APPENDIX 3
LIST OF DOCUMENTS CONSULTED

- IUWASH Contract No AID-497-C-11-00001, dated March 4, 2011
- IUWASH Contract No AID-497-C-11-00001, Modification No 8, dated September 20, 2013

- IUWASH Inception Report, September 2012

- IUWASH Performance Monitoring Plan (PMP), Second Revision, April 2012

- IUWASH Work Plan Programme, Year 1, 2011 (May 2011)
- IUWASH Work Plan Programme, Year 2, 2012 (October 2011)
- IUWASH Work Plan Programme, Year 3, 2013 (October 2012)

- IUWASH Annual Progress Report 1, March 2011–September 2011 (October 2011)
- IUWASH Annual Progress Report 2, October 2011–September 2012 (October 2012)
- IUWASH Annual Progress Report 3, October 2012–September 2013 (October 2013)

- IUWASH Climate Change Vulnerability Assessment & Adaptation Planning for Water Supply, September 2012

- IUWASH PDAM Performance Index, September 2013

- IUWASH Annual Work Plan, Programme Year 4, October 2013 – September 2014 (January 2014)

APPENDIX 4
DETAILS OF FIELD VISITS

Appendix 4.1
Banten Province

November 8-9, 2013

Date	Agency Visited
November 8, 2013	PDAM, Kabupaten Serang
November 8, 2013	Buildings and Residential Spatial Planning and Health Departments, Kabupaten Serang Local Government
November 8, 2013	Health Department, Kabupaten Serang Local Government
November 8, 2013	IUWASH Regional Office, DKI Jakarta, West Java and Banten Provinces
November 9, 2013	Development Planning Agency, Public Works and Health Departments, Kabupaten Tangerang Local Government
November 9, 2013	KPP Syariah UMKM (Micro-Credit Facility), Citra Raya District, Kabupaten Tangerang
November 9, 2013	PDAM Tirta Kerta Raharja, Kabupaten Tangerang
November 9, 2013	IUWASH Regional Office PDAM Team, DKI Jakarta, West Java and Banten Provinces
November 9, 2013	Health Department and Community Health Clinic, Sepatan District, Kabupaten Tangerang
November 9, 2013	Site Visit, Decentralised Community Sewerage System Triggering Location, Sepatan District, Kabupaten Tangerang

Appendix 4.2
Central Java Province

November 10-13, 2013

Date	Agency Visited
November 10, 2013	IUWASH Regional Office, Central Java Province
November 11, 2013	PDAM Kota Surakarta
November 11, 2013	Health Department, Kota Surakarta, Sangkrah District, Community Health Clinic,
November11, 2013	Site Visit, Public Washing, Laundry and Toilet Facility (USAID grant-funded), Kampung Sanitasi, Kota Surakarta
November 11, 2013	Physical Planning Division, Development Planning Agency and Health Department, Kota Tangerang Local Government
November11, 2013	IUWASH Regional Office, Central Java Province
November 12, 2013	PDAM, Kabupaten Sukoharjo
November 12, 2013	Development Planning Agency, Public Works Department, Cleanliness Department, Health Department, Environmental Agency, Legal and Organization Agencies, Kabupaten Sukoharjo Local Government
November 12, 2013	Community Health Division, Health Department, Kabupaten Sukoharjo Local Government
November 12, 2013	Site Visit, PDAM Reservoir (USAID grant-funded), Jomblang Sub-District, Kota Semarang
November 13, 2013	Development Planning Agency, Public Works Department, Health Department, Legal and Personnel Agencies, Kota Semarang Local Government

Appendix 4.3
East Java Province

November 13-16, 2013

Date	Agency Visited
November 13, 2013	IUWASH Regional Office, East Java Province
November 14, 2013	PDAM, Kabupaten Lamongan
November 14, 2013	Site Visit, PDAM IKK Development, Sukorejo Village, Turi District, Kabupaten Lamongan
November 14, 2013	Development Planning Agency, Health and Public Works Departments, SKK Pokja, Kabupaten Lamongan Local Government
November 14, 2013	Site Visit, Individual Toilet Construction, Sugio Village, Sugio District,, Kabupaten Lamongan
November 14, 2013	HIPPAMS (NGO), Kabupaten Lamongan
November 15, 2013	Site Visit, Master Meter Programme, Community Empowerment Group (KSM) Eko Proyo, Kabupaten Sidoarjo
November 15, 2013	Development Planning Agency, Cleanliness & Parks Department, Organisation Agency, Public Works Department, Kabupaten Sidoarjo Local Government
November 15, 2013	PDAM, Kabupaten Sidoarjo
November 15, 2013	Field Visit, Bareng Krajen Community Health Centre, Kabupaten Sidoarjo
November 16, 2013	Site Visit, Infiltration Ponds (USAID-funded), Kabupaten Mojokerto
November 16, 2013	Site Visit, Bulk Water Meter (Coca Cola-funded) Kabupaten Mojokerto
November 16, 2013	PDAM, Kabupaten Mojokerto
November 16, 2013	Health Department, Kabupaten Mojokerto Local Government, Community Health Clinics, Pesangerana District, Kabupaten Mojokerto
November 16, 2013	High Fives, Surabaya Office
November 16, 2013	Site Visit, Community Health Centre, Jampirogo Village, Sooto District, Kabupaten Sidoarjo

Appendix 4.4
South Sulawesi Province

November 12-17, 2013

Date	Agency Visited
November 11, 2013	Discussion with Development Planning Agency, Health and Public Works Departments, Kabupaten Maros local government
November 11, 2013	Discussion with PDAM Kabupaten Maros and Supervisory Board
November 11, 2013	Meeting with IUWASH regional team, Eastern Indonesia
November 12, 2013	Meetings with Secretary, Development Planning Agency, Health, Cleanliness and Public Works Departments, Kota Pare Pare local government
November 12, 2013	Meeting with Sanitation Working Group (*Pokja AMPL*), Kota Pare Pare local government
November 12, 2013	Meeting and site visit, Agency for Community and Family Empowerment, and Commission Member, Kota Pare Pare Legislature
November 12, 2013	Discussion with PDAM Kota Pare Pare
November 13, 2013	Meetings with Development Planning Agency, Health and Public Works Departments, Kota Makassar Local Government
November 13, 2013	Site visits in Makassar with Accelerated Sanitation Development Project (PPSP) team
November 13, 2013	Meetings with PPSP and UPTD Sanitation, Kota Makassar Local Government
November 13, 2013	Meeting with PDAM Kota Makassar
November 14, 2013	Meeting with Development Planning and Environment Agencies, Public Works, Health and Cleanliness Departments, Kabupaten Jeneponto local government
November 14, 2013	Discussions with PDAM Kabupaten Jeneponto
November 14, 2013	Site visit with sanitation SME and triggering sanitarians, Dome Village, Kabupaten Jeneponto

Appendix 4.5
North Sumatra Province

November 25-30, 2013

Date	Agency Visited
November 25, 2013	Site visit to decentralised wastewater treatment plant (IPAL) in Badak Bejuang Sub-District, Kota Tebing Tinggi with the Development Planning Agency and Public Works Department, Kota Tebing Tinggi local government
November 25, 2013	Discussion with the Development Planning Agency, Health Department and sanitarians, Kota Tebing Tinggi local government
November 25, 2013	Visit PDAM Tirtabulian, Kota Tebing Tinggi, for discussion with Director and staff
November 25, 2013	Visit PDAM Tirtauli, Kota Pematang Siantar, for discussion with mayor, board of PDAM directors and staff
November 26, 2013	Field visit to infiltration ponds in Nagahuta, Kabupaten Simalungan
November 26, 2013	Visit PDAM Tirta Silau Piasa, Kabupaten Asahan, for discussion with Director and staff
November 27, 2013	Visit Kota Tanjung Balai local government for meeting with LG secretary, development planning agency, public works department, Cleanliness and parks department and health department to discuss sanitation programmes
November 27, 2013	Field visit re optimization of communal washing and sanitation facilities (MCK)and discussion with local cadre and beneficiaries about location of INDII sAIIG project
November 27, 2013	Visit PDAM Tirta Kualo, Tanjung Balai, for discussion with Director and staff
November 28, 2013	Visit Cemara sludge treatment plant (IPLT), Kota Medan. Discussion with PDAM Tirtanadi staff about Medan centralised off-site sewerage system and IPLT progress
November 28, 2013	Field visit to Belawan District, Kota Medan, for demonstration of desludging process and discussion with local cadre
November 28, 2013	Discussion with Development Planning Agency, Housing and Residential Areas, Cleanliness and Health Departments, and Wastewater Unit and Work Group, Kota Medan local government, about house connections for Medan off-site centralised sewerage system and other sanitation programmes
November 29, 2013	Visit Kota Binjai local government for meeting with LG secretary, development planning agency, public works, Cleanliness and parks and health departments and PDAM to discuss water supply and sanitation programmes

APPENDIX 5
LIST OF INDIVIDUALS CONTACTED AND THEIR AFFILIATIONS

Appendix 5.1
Jakarta Stakeholders

Name	Affiliation
Ir Rina Agustin	Deputy Director, Environmental Health Directorate, Directorate General of Human Settlements, Ministry of Public Works
Ir Nugroho Tri Utomo	Director, Housing & Settlement, State Ministry for National Development Planning
Isabel Blackett	Senior Water and Sanitation Specialist, Water & Sanitation Programme, World Bank
Luthfi Ashari	Democracy and Governance Adviser, USAID Indonesia Office
Bram van der Boon	Urban Sanitation Development Programme (USDP) Team Manager
Eko Subowo	Deputy Director, Directorate of Environmental Health, Directorate General of Disease Control & Environmental Health, Ministry of Health
Ika Francisca	Team Leader, USAID High Fives Programme
Ewinur Machdar	Water & Sanitation Specialist, USAID High Fives Programme

Appendix 5.2
Banten Province

Name	Affiliation
Iwan Setiawan	Development Planning Agency, Kabupaten Serang Local Government
Dian Mardian	Development Planning Agency, Kabupaten Serang Local Government
Ir H. Fachri	Department for Spatial Planning, Buildings and Residential Construction, Kabupaten Serang Local Government
Sukirman	Department for Spatial Planning, Buildings and Residential Construction, Kabupaten Serang Local Government
Sri Nurhayati	Health Department, Kabupaten Serang Local Government
Yonit Wediarsih	Health Department, Kabupaten Serang Local Government
Dadang S	Health Department, Kabupaten Serang Local Government
Irfan Saputra	Health Department, Kabupaten Serang Local Government
Achmad Rifa'i	Director, PDAM Kabupaten Serang
Agus W	PDAM Kabupaten Serang
M Nasir	PDAM Kabupaten Serang
Udi Rosadi	PDAM Kabupaten Serang
Tata P	PDAM Kabupaten Serang
Toha	PDAM Kabupaten Serang
Nori	PDAM Kabupaten Serang
Ali	PDAM Kabupaten Serang
Heri Sudrajat	PDAM Kabupaten Serang
Iis Imam P	PDAM Kabupaten Serang
Nurdin S	PDAM Kabupaten Serang
Adi Jatmika	PDAM Kabupaten Serang
Koswara H	PDAM Kabupaten Serang
Sofwan	PDAM Kabupaten Serang
Haris F	PDAM Kabupaten Serang
Periramdani	Development Planning Agency, Kabupaten Tangerang Local Government
Erwin	Development Planning Agency, Kabupaten Tangerang Local Government
Ati Sri W	Health Department, Kabupaten Tangerang Local Government
Agus R	Community Health Centre, Health Department, Kabupaten Tangerang Local Government
Rudy Usmantoru	PDAM Kabupaten Tangerang
Mustaqim Anam	PDAM Kabupaten Tangerang
Sanitora W	PDAM Kabupaten Tangerang
Ahmad Rizal	PDAM Kabupaten Tangerang
Ardiyah S	PDAM Kabupaten Tangerang
Radius Usman	KPP-UMKM Syariah (Micro-Credit Facility), Kabupaten Tangerang
Sondari	KPP-UMKM Syariah (Micro-Credit Facility), Kabupaten Tangerang
Kamiludin	KPP-UMKM Syariah (Micro-Credit Facility), Kabupaten Tangerang
M Anwar Solihi	KPP-UMKM Syariah (Micro-Credit Facility), Kabupaten Tangerang
Jejen	KPP-UMKM Syariah (Micro-Credit Facility), Kabupaten Tangerang
Muhamad Wahib	KPP-UMKM Syariah (Micro-Credit Facility), Kabupaten Tangerang
Muhamad Umar	KPP-UMKM Syariah (Micro-Credit Facility), Kabupaten Tangerang
M Taufiq Hidayat	KPP-UMKM Syariah (Micro-Credit Facility), Kabupaten Tangerang
Dadan	KPP-UMKM Syariah (Micro-Credit Facility), Kabupaten Tangerang
Makhmur	KPP-UMKM Syariah (Micro-Credit Facility), Kabupaten Tangerang
Kamarudin Batulara	Managing Director, KPP-UMKM Syariah (Micro-Credit Facility), Kabupaten Tangerang

Appendix 5.3
Central Java Province

Name	Affiliation
Ir Singgih Triwibowo, M.Si	President Director, PDAM Kota Surakarta
Maryanto, MT	Technical Director, PDAM Kota Surakarta
Ir Nanang Pirmono	Head, Wastewater Department, PDAM Kota Surakarta
Ratih Hastuti, S.Si	Section Head, Wastewater Planning, PDAM Kota Surakarta
Ir Muchlis, MT	Section Head, Wastewater Installations, PDAM Kota Surakarta
Bayu Tunggul Pemilih, SP	Section Head, Customer Relations, PDAM Surakarta
Joko Prastowo	PDAM Surakarta Customer Forum
Eltika	Sanitarian, Community Health Centre, Sangkrah District, Kota Surakarta
Rahadi	Programme Manager, Institution for Sub-District Community Development (LPTP), Kota Surakarta
Endrik Sujar, ST.MM	Site Technical Staff, Institute for Developing Village Technology (LPTP), Kota Surakarta
Eko Budiarto ST	Site Staff Coordinator, LPTP, Kota Surakarta
Rosma Dewi SE	Site Staff Facilitator, LPTP, Kota Surakarta
Sudrajat	Head of Community Empowerment Group (KSM), Kampung Sanitasi, Kota Surakarta
Darman Hadi Martono	Health Monitor, Community Empowerment Group (KSM), Kampung Sanitasi , Kota Surakarta
Sugeng Widodo	Health Monitor, Community Empowerment Group (KSM), Kampung Sanitasi, Kampung Sanitasi, Kota Surakarta
Cahyo Dafirin	Construction Superintendent, MCK, Kampung Sanitasi,Kota Surakarta
Arif Nurhadi	Head, Physical Planning Division, Development Planning Agency, Kota Surakarta Local Government
Leni	Staff, Wastewater Division, PDAM Kota Surakarta
Endah	Head, Environmental Health Division, Health Department, Kota Surakarta Local Government
Ir Slamet Sanyoto, Dipl, SE, MT	Director, PDAM Kabupaten Sukoharjo
Eko Hari Sunarko	Head, Finance Division, PDAM Kabupaten Sukoharjo
Ngatinu	Head, Customer Relations Division, PDAM Kabupaten Sukoharjo
Mat Hasyim, ST	Head, Training Division, PDAM Kabupaten Sukoharjo
Agung Suparwanto, A. Md	Head, Technical Division, PDAM Kabupaten Sukoharjo
Wahyu Dwi Hastuti	Head, Administration & Personnel, PDAM Kabupaten Sukoharjo
Budi Raharjo	Head, Physical Planning Division, Development Planning Agency, Kabupaten Sukoharjo Local Government
Bambang Irianto	Head of Organisation, Secretariat, Kabupaten Sukoharjo Local Government
Dwi Purnomo, SKM	Head, Environmental Health Division, Health Department, Kabupaten Sukoharjo Local Government
D. Subriyantoro	Head, Agency for Community and Village Empowerment (BPMD), Kabupaten Sukoharjo Local Government
S.E. Iswandaru	Staff, Environmental Agency, Kabupaten Sukoharjo Local Government
Budi Susetyo	Head, Legal Division Secretariat, Kabupaten Sukoharjo Local Government

Name	Affiliation
Etty Laksimiwati	Head, Customer Relations Division, PDAM Kota Semarang
Gunawan Wibisono	Head, Training and Capacity Building Division, PDAM Kota Semarang
M. Firdus	Head, Planning Division, PDAM Kota Semarang
Yuwono Triatmoko	Head, Jomblang Sub-District, Kota Semarang Local Government
M. Nur Aziz	Head. RT 12, Jomblang Sub-District, Kota Semarang Local Government
Herman	Co-ordinator, Community Empowerment Agency (BKM), Jomblang Sub-District, Kota Semarang
M. Imam	CV Bangun Persada (50m3 reservoir contractor)
Arwita Mawarti	Head, Infrastructure Planning and Development Division, Development Planning Agency, Kota Semarang Local government
Dyah Setyaningtyas	Staff, Infrastructure Planning and Development Division, Development Planning Agency, Kota Semarang Local Government
Ali, MT, ST	Head, Housing and Residential, Spatial Planning Department, Kota Semarang Local Government
Transiska Luis	Staff, Environmental Planning and Infrastructure, Spatial Planning Department, Kota Semarang Local Government
Wahyoto	Staff, Environmental Health Division, Health Department, Kota Semarang Local Government
Aris	Staff, Legal Department, Kota Semarang Local Government

Appendix 5.4
East Java Province

Name	Affiliation
Saiful Bakri	Director, PDAM Kabupaten Lamongan
Wikram	Head, Development Planning Agency, Kabupaten Lamongan Local Government
Agus	Head, Public Works Department, Kabupaten Lamongan Local Government
Dinak	Head, Physical Planning Division, Development Planning Agency, Kabupaten Lamongan Local Government
Andrionu A	Head, Environmental Health Division, Health Department, Kabupaten Lamongan Local Government
Jaflan	Community Health Unit, Health Department, Kabupaten Lamongan Local Government
Anomono A	Working Group (Pokja), Kabupaten Lamongan Local Government
Sehadadi	Asosiasi HIPPAMS (NGO), Kabupaten Lamongan
M. Mauladdin	Asosiasi HIPPAMS (NGO), Kabupaten Lamongan
Suhadadi	Asosiasi HIPPAMS (NGO), Kabupaten Lamongan
Khusnul	Asosiasi HIPPAMS (NGO), Kabupaten Lamongan
Sugiyaro	Asosiasi HIPPAMS (NGO), Kabupaten Lamongan
Shanty Wahyu A	Head, Development Planning Agency, Kabupaten Sidoarjo Local Government
Sofyan Ikwadi	Head, Cleanliness and Parks Department, Kabupaten Sidoarjo Local Government
Kusmanti,	Head of Organization, Secretariat, Kabupaten Sidoarjo Local Government
Binti Muamin	PDAM, Customer Forum Group, Kabupaten Sidoarjo
Wahyudi	PDAM Customer Forum Group, Kabupaten Sidoarjo
Suyadi	PDAM Customer Forum Group, Kabupaten Sidoarjo
Bambang Sutono	PDAM Customer Forum Group, Kabupaten Sidoarjo
Bramadityo T	PDAM Customer Forum Group, Kabupaten Sidoarjo
Rudhy W Finsayid	PDAM Customer Forum Group, Kabupaten Sidoarjo
Pandet Idayanto	PDAM Customer Forum Group, Kabupaten Sidoarjo
Iwan Prasetya	PDAM Kabupaten Sidoarjo
Yoyok S	PDAM Kabupaten Sidoarjo
Wardoyo S	PDAM Kabupaten Sidoarjo
Edi Budianto	PDAM Kabupaten Sidoarjo
Effendi	Supervisory Board, PDAM Kabupaten Sidoarjo
Joko Suyono	Supervisory Board, PDAM Kabupaten Sidoarjo
Kadis	PDAM Kabupaten Mojokerto
Anas Rohir	PDAM Kabupaten Mojokerto
Asnan	PDAM Kabupaten Mojokerto
Mariawin	PDAM Kabupaten Mojokerto
Fayakon H	PDAM Kabupaten Mojokerto
Salamin	PDAM Kabupaten Mojokerto
Ifan F	PDAM Kabupaten Mojokert
Sofi	Health Department, Kabupaten Mojokerto Local Government

Name	Affiliation
Moch. Yusrin	Health Department, Kabupaten Mojokerto Local Government
Jutik Sulastri	Sanitarian, Kabupaten Mojokerto
Eko Atiek A	Sanitarian, Kabupaten Mojokerto
Evy Herawati	Sanitarian, Kabupaten Mojokerto
Mohamad Toho	Sanitarian, Kabupaten Mojokerto
Jupri	Resident, Jampirogo Village, Sooto District, Kabupaten Mojokerto
Sunamati	Resident, Jampirogo Village, Sooto District, Kabupaten Mojokerto
Synamah	Resident, Jampirogo Village, Sooto District, Kabupaten Mojokerto
Khawari	Director, Novitec
Asmaiyah	Consultant, USAID-funded High Fives Programme, Surabaya
Yulia L	Consultant, USAID-funded High Fives Programme, Surabaya
Imam Wahyudi	NGO Environmental Foundation (YLHS)
Sarti	NGO Environmental Foundation (YLHS)
Muzakki	NGO Environmental Foundation (YLHS)
Muchlis	NGO Environmental Foundation (YLHS)
Samat	NGO Environmental Foundation (YLHS)

Appendix 5.5
South Sulawesi Province

Name	Affiliation
H Muhamad Basir	Development Planning Agency, Kabupaten Jeneponto Local Government
Hj Meriyam	Development Planning Agency, Kabupaten Jeneponto Local Government
Andi Syarif, S.Sos, MM	Development Planning Agency, Kabupaten Jeneponto Local Government
Fatma Ronggo	Development Planning Agency, Kabupaten Jeneponto Local Government
Muhamad Taufiq, S.Ip	Development Planning Agency, Kabupaten Jeneponto Local Government
Masita Dewi	Development Planning Agency, Kabupaten Jeneponto Local Government
Julihana	Development Planning Agency, Kabupaten Jeneponto Local Government
Sumarin	Development Planning Agency, Kabupaten Jeneponto Local Government
Nuzuldin Ngallo	Development Planning Agency, Kabupaten Jeneponto Local Government
Mustakin	Development Planning Agency, Kabupaten Jeneponto Local Government
H. M. Yusuf	Environmental Agency, Kabupaten Jeneponto Local Government
Ir Anshar, AS, MM	Environmental Agency, Kabupaten Jeneponto Local Government
Ali Akbar	Public Works Department, Kabupaten Jeneponto Local Government
Hj ST Suryani, S. KM	Health Department, Kabupaten Jeneponto Local Government
Suniati, S. Km	Health Department, Kabupaten Jeneponto Local Government
Ishak Ali	Health Department, Kabupaten Jeneponto Local Government
Ahmad Lami	Spatial Planning & Cleanliness Department, Kabupaten Jeneponto Local Government
Zelviyani S.P.	PDAM Kabupaten Jeneponto
Arpa Mujur	PDAM Kabupaten Jeneponto
Wahyudi	PDAM Kabupaten Jeneponto
Zainuddin	PDAM Kabupaten Jeneponto
Amry ST	PDAM Kabupaten Jeneponto
Rosliah, S. Pd	Triggering Cadre, Desa Jombe, Kabupaten Jeneponto
Kasmawati	Triggering Cadre, Desa Jombe, Kabupaten Jeneponto
Fatimah	Koppas Utama (Koperasi), Kabupaten Jeneponto
Hj Tenri	Koppas Utama (Koperasi), Kabupaten Jeneponto
Syaifuddin	Koppas Utama (Koperasi), Kabupaten Jeneponto
Dewi Yanti	Koppas Utama (Koperasi), Kabupaten Jeneponto
Irsal Dhogas	Koppas Utama (Koperasi), Kabupaten Jeneponto
Miryam Saraswati S	Koppas Utama (Koperasi), Kabupaten Jeneponto
Ismail	Development Planning Agency, Kota Makassar Local Government
Yanizar	Development Planning Agency, Kota Makassar Local Government
Yulianto	Development Planning Agency, Kota Makassar Local Government
Silka M	Physical Planning Division, Development Planning Agency, Kota Makassar Local Government
St. Khadijah	Physical Planning Division, Development Planning Agency, Kota Makassar Local Government
B. Imrayani Imran	Physical Planning Division, Planning & Development Agency, Kota Makassar Local Government
Rinildriani	Physical Planning Division, Development Planning Agency, Kota Makassar Local Government
Imbang Muryanto	Public Works Department, Kota Makassar Local Government
Zuhaelis Zubir	UPTD Wastewater (PAL), Public Works Department, Kota Makassar Local Government

Name	Affiliation
Elysyamdjaya	UPTD Wastewater (PAL), Public Works Department, Kota Makassar Local Government
Khaerunnisya	Health Department, Kota Makassar Local Government
Kasmawati	Health Department, Kota Makassar Local Government
Zakiah Darajat	Health Department, Kota Makassar Local Government
Sulha Kubo	Health Department, Kota Makassar Local Government
Lukman Hakim	Accelerated Development of Urban Sanitation Project (PPSP), South Sulawesi Province
Anshar	PDAM Kota Makassar
Ismail	PDAM Kota Makassar
Askari	Secretary, Kota Pare Pare Local Government
Misradi P	Development Planning Agency, Kota Pare Pare Local Government
Suyadi AS	Development Planning Agency, Kota Pare Pare Local Government
Siti Rahmawati	Development Planning Agency, Kota Pare Pare Local Government
Fatima Farid	Development Planning Agency, Kota Pare Pare Local Government
Apriani Safitri	Development Planning Agency, Kota Pare Pare Local Government
Mirnawati	Development Planning Agency, Kota Pare Pare Local Government
Talha	Development Planning Agency, Kota Pare Pare Local Government
Zahrial	Development Planning Agency, Kota Pare Pare Local Government
Isa	Development Planning Agency, Kota Pare Pare Local Government
Syarifuddin	Development Planning Agency, Kota Pare Pare Local Government
Irsan	Development Planning Agency, Kota Pare Pare Local Government
Fitriani	Development Planning Agency, Kota Pare Pare Local Government
Rabbaya	Development Planning Agency, Kota Pare Pare Local Government
Syarifullah	Development Planning Agency, Kota Pare Pare Local Government
Hajriana	Development Planning Agency, Kota Pare Pare Local Government
Davita Angreni	Development Planning Agency, Kota Pare Pare Local Government
A. Bayu Arief	Public Works Department, Kota Pare Pare Local Government
Riber	Working Group (Pokja AMPL), Kota Pare Pare Local Government
A. Ardiansyah T	Working Group (Pokja AMPL), Kota Pare Pare Local Government
H. Amir M	Cleanliness Department, Kota Pare Pare Local Government
A. Nur Mahfud	Environmental Agency, Kota Pare Pare Local Government
Muslimin	Agency for Community & Family Empowerment (BPMK)
Hj Halifa	Health Department, Kota Pare Pare Local Government
Kasmawati, MM.Kes	Health Department, Kota Pare Pare Local Government
Syarifuddin	PDAM Kota Pare Pare
Andi Nurhayani	Member, Local Government Legislature (DPRD), Kota Pare Pare
Niawati A. Ridho	Member, NGO, Kota Pare Pare
Prayitno	Development Planning Agency, Kabupaten Maros Local Government
Musdalifah	Health Department, Kabupaten Maros Local Government
Samsuar	Public Works Department, Kabupaten Maros Local Government
Badar	PDAM Kabupaten Maros
Rajab	PDAM Kabupaten Maros
Mery	PDAM Kabupaten Maros
Arifin	PDAM Kabupaten Maros
Merti	PDAM Kabupaten Maros

Name	Affiliation
Arfan	PDAM Kabupaten Maros
Asmati	PDAM Kabupaten Maros
Nurlela	PDAM Kabupaten Maros
Andi Irfandi	PDAM Kabupaten Maros
Rustam	PDAM Kabupaten Maros
Faisal Tahir	PDAM Kabupaten Maros
Isa Syamsudin	PDAM Kabupaten Maros
Renita	PDAM Kabupaten Maros
M. Imran	Member, Supervisory Board, PDAM Kabupaten Maros

Appendix 5.6
North Sumatra Province

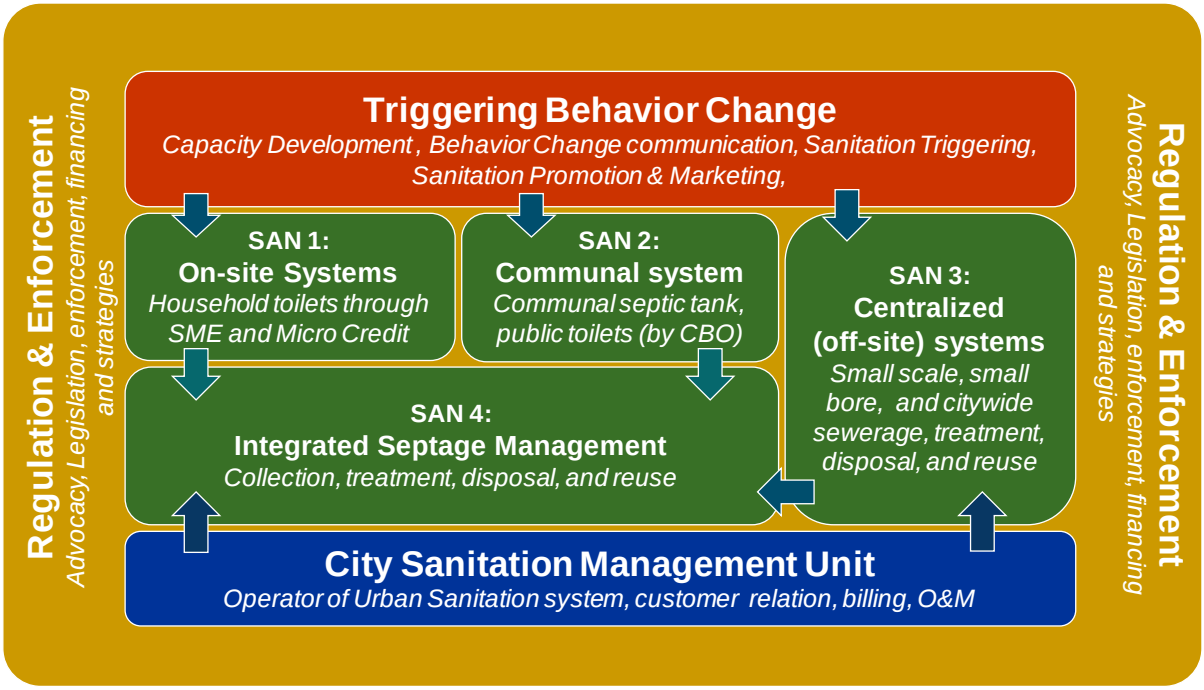
Name	Affiliation
Gulbakhri	Head, Development Planning Agency, Kota Tebing Tinggi Local Government
Bisman Ritonga	Development Planning Agency, Kota Tebing Tinggi Local Government
Bosmen Purba	Development Planning Agency, Kota Tebing Tinggi Local Government
Dini Astika	Development Planning Agency, Kota Tebing Tinggi Local Government
M. Shah Irwan	Health Department, Kota Tebing Tinggi Local Government
Rahmawany LBS	Health Department, Kota Tebing Tinggi Local Government
Rusmiaty Sep	Cleanliness & Parks Department, Kota Tebing Tinggi Local Government
Idham Khalid	Environment Agency, Kota Tebing Tinggi Local Government
Rohata Samosir	Community Health Centre, Kota Tebing Tinggi
Dian Abadi Siregar	Head, Badek Bejuang Sub-District, Kota Tebing Tinggi Local Government
Sahruddin	Sanitation Promotion Team, Badek Bejuang Sub-District, Area II, Kota Tebing Tinggi
Sy. Damanik	Sanitation Promotion Team, Badek Bejuang Sub-District, Area III, Kota Tebing Tinggi
Manutin Siregar	Sanitation Promotion Team, Badek Bejuang Sub-District, Area IV, Kota Tebing Tinggi
Ir H. Oki Doni Siregar	Director, PDAM Kota Tebing Tinggi
Adriana SE	Staff, PDAM Kota Tebing Tinggi
Ali Sakti	Staff, PDAM Kota Tebing Tinggi
Maulana Haris S	Staff, PDAM Kota Tebing Tinggi
Erlina	Staff, PDAM Kota Tebing Tinggi
Sariah	Staff, PDAM Kota Tebing Tinggi
Jowati Anran	Staff, PDAM Kota Tebing Tinggi
Rahmawari	Staff, PDAM Kota Tebing Tinggi
Abdul Haris Siregar SE	Staff, PDAM Kota Tebing Tinggi
Hadi Sucipto	Staff, PDAM Kota Tebing Tinggi
Hulman Sitorus SE	Mayor, Kota Pematang Siantar
H. Badri Kalimantan, SE	Managing Director, PDAM Kota Pematang Siantar
Hotmer Simanjuntak SE	Administrative Director, PDAM Kota Pematang Siantar
Ir Robert Sibarani	Technical Director, PDAM Kota Pematang Siantar
Azhar Nasution	Division Head, Customer Relations, PDAM Kota Pematang Siantar
Famos Situncom	Head, Workshop, PDAM Kota Pematang Siantar
Amin Adap Baras AMD	Division Head, Water Production, PDAM Kota Pematang Siantar
Aris Edy Saputra	Division Head, Finance, PDAM Kota Pematang Siantar
Drs Azhar Nasution	Division Head, Legal Affairs, PDAM Kota Pematang Siantar
Ponidi ST	Division Head, Planning, PDAM Kota Pematang Siantar
Darlim M. Pasaribu	Staff, PDAM Kota Pematang Siantar

Name	Affiliation
Sunar	Staff, PDAM Kota Pematang Siantar
Jimi Simatupang	Staff, PDAM Kota Pematang Siantar
Rusdin Ginting	Staff, PDAM Kota Pematang Siantar
Bambang P.	Staff, PDAM Kota Pematang Siantar
Sukimin	Staff, PDAM Kota Pematang Siantar
Golfrit Hutapea	Staff, PDAM Kota Pematang Siantar
Hotman Ompusunggis ST	Staff, PDAM Kota Pematang Siantar
Rosliana Sitanggang SE	Staff, PDAM Kota Pematang Siantar
Dian Samudra	Staff, PDAM Kota Pematang Siantar
Suharman S.Sos	Staff, PDAM Kota Pematang Siantar
Perdiansyah	Staff, PDAM Kota Pematang Siantar
Pantas Situmorang	Staff, PDAM Kota Pematang Siantar
Ricky Pasha Barus	Staff, PDAM Kota Pematang Siantar
Zulfikli Kahar	Staff, PDAM Kota Pematang Siantar
Muridi	Representative, PDAM Kota Pematang Siantar Customer Forum
Darwin Syah SE	Director, PDAM Kabupaten Asahan
Asyruddin SH	Division Head, Leakage Management, PDAM Kabupaten Asahan
Zulkarnaen	Division Head, Planning, PDAM Kabupaten Asahan
Hasuddungan Nadaek	Division Head, Water Production, PDAM Kabupaten Asahan
Arianto Damanik	Head, Workshop, PDAM Kabupaten Asahan
Urianto Manurung ST	Division Head, Water Distribution, PDAM Kabupaten Asahan
Ahmad Rudi	Division Head, Personnel, PDAM Kabupaten Asahan
Suleiman Las	Division Head, Monitoring & Evaluation, PDAM Kabupaten Asahan
Marsudi	Division Head, Finance, PDAM Kabupaten Asahan
Ruslan SE	Section Head, Finance, PDAM Kabupaten Asahan
Ika Haryani	Section Head, Finance, PDAM Kabupaten Asahan
Ada Oktaviani	Section Head, Finance, PDAM Kabupaten Asahan
Sri Mulyanto ST	Section Head, Finance, PDAM Kabupaten Asahan
Makzizat	Coordinator, Technical Supervision, PDAM Kabupaten Asahan
H. Ompusunggu	Staff, PDAM Kabupaten Asahan
Syaiful Anwar	Staff, PDAM Kabupaten Asahan
Sofyan Marpaung	Staff, PDAM Kabupaten Asahan
Bustamin	Staff, PDAM Kabupaten Asahan
Ishak	Staff, PDAM Kabupaten Asahan
Lamtorang Sihotang	Staff, PDAM Kabupaten Asahan
Dedy F. P.	Staff, PDAM Kabupaten Asahan
Marudu M	Staff, PDAM Kabupaten Asahan
Ir H. Erwin S. Pane	Secretary, Kota Tanjung Balai Local Government
Ir H. Mirzal	Head, Development Planning Agency, Kota Tanjung Balai Local Government
Ir R. Purba	Head, Public Works Department, Kota Tanjung Balai Local Government
Nurlindowati S	Staff, Health Department, Kota Tanjung Balai Local Government
Siti Sujatni	Staff, Health Department, Kota Tanjung Balai Local Government
S.M.T. Simbalon	Head, Cleanliness Department, Kota Tanjung Balai Local Government

Name	Affiliation
Suhardi ST	Staff, Development Planning Agency, Kota Tanjung Balai Local Government
Ratna Dewi SE	Staff, Cleanliness Department, Kota Tanjung Balai Local Government
Donni Akram	Staff, Planning & Development Agency, Kota Tanjung Balai Local Government
Martini Akbar	Staff, Planning & Development Agency, Kota Tanjung Balai Local Government
Tasul Abrar	Staff, Planning & Development Agency, Kota Tanjung Balai Local Government
Sufri Eka D. ST	Staff, Planning & Development Agency, Kota Tanjung Balai Local Government
Nurmansyah A.Z.	PDAM Kota Tanjung Balai
Zainal Arifin BA	PDAM Kota Tanjung Balai
Elidar SH	PDAM Kota Tanjung Balai
Slamet Mariyadi	PDAM Kota Tanjung Balai
Yudil Hery Nasution	PDAM Kota Tanjung Balai
Umi Kalsum	PDAM Kota Tanjung Balai
H. Nurdin	PDAM Kota Tanjung Balai
Herianto ST	PDAM Kota Tanjung Balai
Masnah Armiati	PDAM Kota Tanjung Balai
Tuti Armalina SE	PDAM Kota Tanjung Balai
Adi Surya	PDAM Kota Tanjung Balai
Israini	Head of Wastewater Treatment Plant, PDAM Kota Medan
Lokot P. Siregar	Staff, Wastewater Division, PDAM Kota Medan
Budi Wibowo	Staff, Wastewater Division, PDAM Kota Medan
Risdom R. Siregar	Staff, Wastewater Division, PDAM Kota Medan
Bachtiar Yuwono	Staff, Wastewater Division, PDAM Kota Medan
Nurasiah Pane	Staff, Wastewater Division, PDAM Kota Medan
Tondi	Housing & Residential Areas Department, Kota Medan Local Government
Rawaluddin Siregar	Housing & Residential Areas Department, Kota Medan Local Government
Nasir	Housing & Residential Areas Department, Kota Medan Local Government
Khairudi Siregar	Housing & Residential Areas Department, Kota Medan Local Government
Odentara Sembiring	Health Department, Kota Medan Local Government
Khaidir	Community Coordinator, Belawan I Sub-District, Kpta Medan
Elyuzar SRG	Secretary, Kota Binjai Local Government
Iriadi Irawadi	Head, Public Works Department, Kota Binjai Local Government
Suhadiwinata	Head, Cleanliness and Parks Department, Kota Binjai Local Government
Dr Melyani M, B. Kes	Head, Health Department, Kota Binjai Local Government

Name	Affiliation
Zulfan	Development Planning Agency, Kota Binjai Local Government
Megang STP	Spatial Planning, Housing and Residential Areas Department, Kota Binjai Local Government
Farida Hanum	PDAM Kota Binjai
Sugeng H	PDAM Kota Binjai
Helmi H	PDAM Kota Binjai

APPENDIX 6
URBAN WASTEWATER FRAMEWORK



APPENDIX 7
STATUS AND FORECAST OF IUWASH LOWER LEVEL INDICATORS AT SEPTEMBER 2013

COMPONENT 1: MOBILISING DEMAND FOR SERVICE DELIVERY			
Indicator	**Sept 2013 Actual**	**Sept 2014 Plan**	**End Project Target**
MD 1: Households willing to pay for sanitation improvements	9,374 (23.4%	37,624 (94.1%)	40,000
MD 2: Civil society groups and/or government cadres implementing programmes to mobilise improved access to safe drinking water & improved sanitation	28 (28%)	566 (566%)	100
MD 3: Civil society groups reporting on PDAM operations & performance	0	25 (125%)	20
MD 4: Sanitation-for-the poor toolkit developed	0	1 (100%)	1
MD 5: Households increase adopting improved hygiene practices	N/A	20% (100%)	20%
MD 6: No of Training-of-Trainers courses conducted for LG officials, staff & community leaders related to participatory planning activities, such as triggering exercises & behaviour change programmes developed	N/A	1 (100%)	1

COMPONENT 2: IMPROVE CAPACITY FOR SUSTAINABLE WATER & SANITATION SERVICES			
Indicator	**Sept 2013 Actual**	**Sept 2014 Plan**	**End Project Target**
IC 1: PDAMs with better technical, financial & institutional performance	50 (100%)	51 (102%)	50
IC 2: PDAMs assisted to restructure defaulted MOF loans	11 (55%)	38 (190%)	20

COMPONENT 2: IMPROVE CAPACITY FOR SUSTAINABLE WATER & SANITATION SERVICES			
Indicator	**Sept 2013 Actual**	**Sept 2014 Plan**	**End Project Target**
IC 3: PDAMs with improved creditworthiness	4 (20%)	27 (135%)	20
IC 4: LG institutions implementing climate change adaptation measures, based on a raw water sources vulnerability assessment	0	20 (100%)	20
IC 5: LGs implementing integrated sanitation & hygiene interventions that reflect their city sanitation strategies	0	40 (133.3%)	30
IC 6: Small & medium-sized businesses providing affordable construction & sanitation facility management services	4 (13.3%)	29 (96.7%)	30
IC 7: No of poor residents in targeted communities reporting greater satisfaction with water & sanitation services	78% (388%)		20%
IC 8: No of LG sanitation units established with supporting policies, budgets & personnel	N/A	29 (290%)	10
IC 9: No of "sustainable urban sanitation frameworks" adopted by GOI as key part of national sanitation programming policy	N/A	1 (100%)	1
IC 10: No of people from stakeholder institutions with increased capacity to adapt to the impact of climate change variability & change as a result of USG assistance	N/A	100 (100%)	100
IC 11: No of climate change adaptation tools, associated technology & methodology developed, tested and/or adopted as a result of USG assistance	N/A	1 (100%)	1

COMPONENT 3: CREATE AN ENABLING ENVIRONMENT TO SUPPORT EQUITABLE WATER & SANITATION SERVICES			
Indicator	**Sept 2013 Actual**	**Sept 2014 Plan**	**End Project Target**
EE 1: Participating LGs putting greater priority on safe drinking water & sanitation through supportive policies & budget increases	11 (22%)	65 (130%)	50
EE 2: PDAM and/or LGs obtaining access to long-term funding for water and/or sanitation investment plans	7 (14%)	37 (74%)	50
EE 3: Percentage increase of financial resources accessed by service providers from public & private sources for expansion of improved water & sanitation services	7.15%	121.5%	10%
EE 4: Low-income households accessing micro-finance for household water & sanitation improvements	7,221 (18.1%)	22,821 (57.05%)	40,000
EE 5: No of LGs adapting new or improved mechanisms for citizen engagement in water and sanitation	N/A	19 (95%)	20
EE 6: No of new or improved regulations to facilitate access to capital finance in the water sector	N/A	1 (100%)	1

APPENDIX 8
PERFORMANCE OF IUWASH-ASSISTED PDAMS (JUNE 2011-JUNE 2013)
(As per IUWASH PDAM Performance Index)

Banten and West Java Provinces			
PDAM	**June 2011**	**June 2013**	**% Change**
Kota Bekasi	42.5	47.3	11%
Kota Bogor	62.5	76.0	22%
Kabupaten Karawang	28.5	52.0	81%
Kabupaten Serang	38.4	49.5	29%
Kabupaten Tangerang	51.0	49.3	(3%)

Central Java Province			
PDAM	**June 2011**	**June 2013**	**% Change**
Kota Semarang	48.5	65.0	34%
Kota Surakarta	51.5	63.8	24%
Kabupaten Kendal	41.7	58.2	40%
Kabupaten Kudus	57.2	73.6	73%
Kabupaten Semarang	46.2	68.5	48%

East Java Province			
PDAM	**June 2011**	**June 2013**	**% Change**
Kota Probolinggo	41.1	58.6	43%
Kabupaten Gresik	40.3	52.7	31%
Kabupaten Lamongan	39.4	55.1	40%
Kabupaten Mojokerto	32.9	64.5	96%
Kabupaten Sidoarjo	59.7	68.7	15%

East Indonesia			
PDAM	**June 2011**	**June 2013**	**% Change**
Kota Ambon	26.5	34.7	31%
Kota Jayapura	39.9	44.9	13%
Kota Pare Pare	30.6	49.6	62%
Kabupaten Enrekang	23.4	36.0	54%

North Sumatra Province			
PDAM	**June 2011**	**June 2013**	**% Change**
Kota Binjai	28.4	40.8	44%
Kota Medan	51.4	73.5	43%
Kota Pematang Siantar	32.0	52.4	64%
Kota Tanjung Balai	35.4	55.1	55%
Kota Tebing Tinggi	26.9	46.1	46%

APPENDIX 9 CENTRAL GOVERNMENT GRANTS FOR WATER SUPPLY AND SANITATION

Appendix 9.1
APBN (Cipta Karya) Grants for Water Supply and Sanitation (Rp Billion)

	2010	2011	2012	2013[59]	2014[60]
Water Supply	1,749	3,128	3,756	5,543	5,300
Sanitation	1,356	2,305	2,784	3,150	2,900

Appendix 9.2
Special Allocation Funds (DAK) Grants for Water Supply and Sanitation (Rp Billion)

	2010	2011	2012	2013[61]
Water Supply	357	420	502	610
Sanitation	357	420	464	510

[59] 2013 Cipta Karya APBN Budget
[60] 2014 Cipta Karya Budget/Strategic Plan (RENSTRA)
[61] 2013 Cipta Karya APBN Budget

APPENDIX 10
ALLOCATIONS FOR SANITATION (WASTEWATER) IN 2010 AND 2013 BY IUWASH-ASSISTED LOCAL GOVERNMENTS AS % OF BUDGET (APBD)

Banten and West Java Provinces			
Local Government	**% APBD 2010**	**% APBD 2013**	**% Change**
Kota Bekasi	0.03%	0.57%	1,800%
Kota Bogor	0.43%	1.61%	274%
Kabupaten Bandung	0.09%	0.23%	156%
Kabupaten Bekasi	0.46%	0.33%	(28%)
Kabupaten Karawang	0.32%	0.20%	(38%)
Kabupaten Lebak	0.18%	0.30%	67%
Kabupaten Purwakarta	0.93%	1.22%	31%
Kabupaten Serang	1.43%	0.92%	(36%)
Kabupaten Tangerang	0.05%	0.76%	1,420%
Kabupaten Tangerang Selatan	0.15%	0.80%	433%

Central Java Province			
Local Government	**% APBD 2010**	**% APBD 2013**	**% Change**
Kota Salatiga	0.36%	0.48%	33%
Kota Semarang	0.22%	1.09%	31%
Kota Surakarta	0.49%	0.64%	31%
Kabupaten Bateng	0.24%	0.51%	113%
Kabupaten Kendal	1.42%	0.35%	(75%)
Kabupaten Klaten	0.56%	0.63%	13%
Kabupaten Kudus	0.17%	0.27%	59%
Kabupaten Semarang	0.14%	0.59%	93%
Kabupaten Sukoharjo	0.22%	0.37%	68%

East Java Province			
Local Government	**% APBD 2010**	**% APBD 2013**	**% Change**
Kota Batu	1.55%	1.18%	(24%)
Kota Malang	0.77%	1.79%	132%
Kota Mojokerto	0.88%	1.22%	25%
Kota Probolinggo	2.27%	1.10%	(51%)
Kabupaten Gresik	1.00%	2.05%	103%
Kabupaten Jombang	0.99%	0.58%	(41%)
Kabupaten Lamongan	0.54%	1.38%	151%
Kabupaten Malang	0.64%	0.53%	(19%)
Kabupaten Mojokerto	0.20%	0.25%	39%
Kabupaten Probolinggo	0.47%	1.40%	198%
Kabupaten Sidoarjo	0.42%	1.02%	143%

South Sulawesi Province			
Local Government	**% APBD 2010**	**% APBD 2013**	**% Change**
Kota Makassar	0.88%	0.88%	-
Kota Pare Pare	1.36%	1.22%	(7%)
Kabupaten Bantaeng	0.58%	1.05%	81%
Kabupaten Enrekang	0.59%	1.38%	139%
Kabupaten Jeneponto	0.85%	1.22%	44%
Kabupaten Maros	0.27%	1.61%	496%
Kabupaten Pinrang	0.27%	1.11%	311%
Kabupaten Sidrap	0.31%	1.08%	248%
Kabupaten Takalar	0.33%	1.92%	482%

North Sumatra Province			
Local Government	**% APBD 2010**	**% APBD 2013**	**% Change**
Kota Binjai	0.34%	0.60%	79%
Kota Medan	0.23%	0.71%	209%
Kota Pematang Siantar	1.03%	0.45%	50%
Kota Sibolga	0.00%	0.73%	N/A
Kota Tanjung Balai	1.44%	2.54%	76%
Kota Tebing Tinggi	1.05%	0.84%	(20%)
Kabupaten Asahan	0.24%	2.42%	950%
Kabupaten Labuhan Batu	0.25%	0.15%	(40%)
Kabupaten Langkat	0.00%	0.34%	N/A

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