Pacific Institute

Indonesia WATER SMS Project: Improving Water Services in Indonesia through Crowd-Sourced Map Data Mid-term Program Evaluation

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External Evaluator

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A qualitative evaluation of the Indonesia WATER SMS Project, funded by the United States Agency for International Development Office through Cooperative Agreement Award No. AID-497-A-11-00004 implemented by Pacific Institute in Malang, East Java and Makassar, South Sulawesi, Indonesia

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EXECUTIVE SUMMARY

The USAID Development Grants Program funded Indonesia WATER SMS (IWSMS) project aims to address the lack of information, transparency, and communication among the numerous actors in the urban water sector, including residential water consumers, water utilities, local governments and the informal water sector by making available a highly accessible communication and tracking mechanism that relies on mobile phones (SMS), email and the internet. The WATER SMS system will enable two-way communication and information sharing between water users and water providers and result in the availability of crowd-sourced data, including maps, and other information useful towards making improvements in water services for the urban poor in Indonesia.

The project is a collaboration between three organizations, two U.S. based Nexleaf Analytics and Pacific Institute and PATTIRO, an NGO based in Indonesia. Pacific Institute serves as the contract administrator. This assessment seeks to provide a comprehensive mid-term evaluation of the Indonesia WATER SMS Project: Improving Water Services in Indonesia through Crowd-Sourced Map Data project. The mid-term evaluation included a desktop review of program documents, interviews with members of the projects Program Management Team (PMT) and two on-line surveys to assess the activities implemented by the project over the first eighteen months (December 2010 through May 2012) of the 3 year project. The evaluation focused on an assessment of: management factors and the collaboration among the three agencies; an assessment the major achievements of the project to-date in relation to its stated objectives and intended results; an assessment on progress towards the development and deployment of the WATER SMS System and an assessment of key factors affecting sustainability of the project. Suggested recommendations for the project are also included in the report.

Project Findings

The project has accomplished a considerable amount of high quality work in its first 18 months of implementation, particularly impressive in that the work was completed with three organizations that have not worked together before, that it was conducted transnationally and in different languages, and included work of a very technical nature. Amongst the major findings

Collaborating Partnership & Management Findings:

- The MOU that the three organizations signed and the structures, e.g. Project Management Team, established to guide the project and administrative documents, e.g. sub agreements, performance monitoring plans and project management policy, provide a solid framework to guide the projects work. All three organizations noted that the administrative burdens of the project are higher than anticipated and that this takes away time from programmatic activities
    - Despite the structures and policies in place the PMT does not look to be operating as agreed upon in the MOU specifically with respect to participation by key persons in leadership positions, particularly over the last year of the project.
    - PATTIRO has had some fiscal reporting and cost-share fund raising challenges that the project is working on. This evaluation did not include a fiscal audit.
- The project has established very effective communication mechanisms, particularly given the distance and language challenges. Collaborative staff meetings, e.g. task specific and PMT meetings are well documented, there are limited meeting notes for organization specific – internal project meetings. The majority of project sessions, e.g. Learning Sessions and Focus Groups are well documented. Some improvements could be made to ensure that due dates, assigned persons responsible are indicated in documents for action items, and that all involved understand each other's communication style to increase overall effectiveness.

- Staff from the collaborating partner organizations rated the overall collaboration high in terms of the level of communication, trust and respect, level of appropriate sharing of project knowledge and information, and other factors in a survey conducted for the evaluation. In addition, members of the PMT interviewed for the evaluation indicated a high level of respect for the other's organizations work and the overall collaboration.

Project Work To-Date Findings:

- The project successfully completed several reports that have been very useful toward informing the projects work, including but not limited to baseline studies, location selection assessments, technical partner assessment reports and an analysis of mobile phone technology applications being used in WASH and development in general in the ***mWASH: Mobile Phone Applications for the Water, Sanitation, and Hygiene Sector*** report***.*** While this report indicates areas where improvements can be made these are pointed out more from a "lessons learned" standpoint, as all staff indicated that the reports completed have contributed greatly to the development and design of project activities; which is the ultimate goal of undertaking these activities.
- Engagement activities, e.g. learning sessions and FGD and MSDs were found to be both well planned and executed, and as with the reports very helpful to project development and design activities. Nexleaf Analytics and Pacific Institute staff were particularly complimentary of PATTIRO's staff's work in these efforts. Two issues raised during these sessions will need to remain at the forefront of the project's planning and implementation phases:

  1) Malang's PDAM already has a complaint system in place and therefore it will be important that the developed system consider, compliment and strengthen the existing system to ensure long-term buy in and adoption both by the water utility and customers.

  2) Makassar has significant water access issues and limited resources (financial and staffing) to address identified needs and to respond to customer complaints.
- Community Advisory members from both Makassar and Malang communities were surveyed for the evaluation. Ninety-five percent of the respondents indicated that they felt their perspective was being considered in the development of the project. In addition, the respondents felt the project was going to make a difference in their communities' water needs and would be useful to both water users and water providers.
- The project has successfully engaged PDAM in the project in both Makassar and Malang, with Makassar looking to need additional attention, in part due to changes in leadership in PDAM Makassar and it being a new community for PATTIRO.
- The project has successfully engaged the informal water sector, particularly in Malang where there are formal informal water provider associations or "HIPPAMs". There are no such associations in Makassar and the extent to which the project is working with the informal water providers in Makassar is not fully understood or well documented.

Progress on Development & Deployment of the IWSMS:

- Significant groundwork has been conducted to develop and prepare for the release and piloting of the IWSMS system and this work continues.
  - PATTIRO's work to collect approximately 800 sample SMS reports regarding water delivery/usage was identified as extremely helpful to informing the design of the system by Nexleaf Analytics.
  - Planning documents have been created to guide the projects work specific to activities related to development of the IWSMS system. Modifications to these documents to include specific due dates and responsible staff would assist to make these documents more accountability and outcome focused.

- While solid communication and information mechanisms are in place, and staff overall rated communication and information sharing high, there are opportunities for communication improvements in the project that would help to facilitate more efficient and effective project activities.
- Among the issues identified by Community Advisory Committee members were concerns related to long-term sustainability of the IWSMS system after the USAID contract ends. The team has begun work on activities focused on sustainability and scaling of the project, particularly on the Expert Meetings identified in the Cooperative Agreement. Increased attention will need to be placed on these activities as the project enters the second half of the contract.

Conclusion

Overall, members of the PMT felt that the project is on target to complete the project objectives within the project's three years. Over the last 18 months, the project has completed a significant amount of meaningful work that has informed the initial designs of IWSMS system and has successfully engaged the community and water providers in the project design and overall goals of the project. While there is room for improvement in some areas of the project, no significant findings were identified. There is a significant amount of work remaining to develop, implement and pilot the project and to see that the project is sustained and taken to scale. To ensure ultimate success of the project and implementation of the remaining activities the team will need to sustain its own vigor, and perhaps reengage some of the PMT leadership team, over the remaining months of the project. The IWSMS project has created a very strong team and a cadre of tools that should assist in keeping the staff focused on project deliverables to ensure overall project success. Specific recommendations suggested for the project, which may assist to improve the project in the evaluated areas are identified in Section 4 of the report.

Glossary of Acronyms and Terms

BAPPEDA	*Badan Perencanaan Pembangunan Daerah* – Regional Planning Board
CSO	Community Service Organization
DGP	Development Grants Program
FTE	Full Time Equivalent position
HIPPAM	*Himpunan Penduduk Pemakai Air Minum*, or association of drinking water consumers
IWSMS	Indonesia WATER SMS project
kecamatan	Sub-District
kelurahan	neighborhood, village
LSM	*Lembaga Swadaya Masyarakat* - community self-help organization/ NGO
Musrenbang	*Musyawarah Perencanaan dan Pembangunan /* Development and Planning Workshop (local government budget allocation process)
PATTIRO	PATTIRO (Pusat Telaah & Infrmas Regional) Partner Organization
PDAM	Perusahaan Daerah Air Minum, or Indonesian regional drinking water utility
PMT	Project Management Team
Pulsa	Pre-pain airtime credit for mobile phones
PVOs	U.S. Private Voluntary Organizations
RW	*Rukun Warga* / Neighborhood leader
RT	*Rukun Tetangga/* Sub-neighborhood leader
SKPD	*Satuan Kerja Perangkat Desa* regional working unit, i.e. regional government
SMS	short message service
USAID	U.S. Agency for International Development
WASH	Water, Sanitation and Hygiene

1. BACKGROUND

1.1 Program Description

This document presents the findings from a desktop review of project documents and findings from interviews and surveys conducted with program partners engaged in the Indonesia WATER SMS pilot project in Indonesia. This report serves as the mid-term evaluation for the program's first 18 months of the three-year program (December 2010 to December 2013).

The Indonesia WATER SMS Project is a three-year project funded by the U.S. Agency for International Development's (USAID) Development Grants Program (DGP) in the amount of $1.3 million USD. The Development Grants Program is a competitive small grants program, initiated in 2008, that provides opportunities for U.S. Private Voluntary Organizations (PVO) and local NGOs that have limited or no experience managing direct USAID grants. The DGP was designed to expand the number of direct partnerships USAID has with U.S. PVOs and indigenous, local NGOs and to build the capacity of these organizations to better meet the needs of their constituents. The contract with USAID requires that the partnering agencies contribute 15% of the overall project funds in the amount of $ 229,403.

The Indonesia WATER SMS Project (IWSMS) is working to create a highly accessible communication and tracking mechanism that will use mobile phone messages to develop crowd-sourced map data provided by individuals in communities that will serve to provide a "data-driven dashboard" for Perusahaan Daerah Air Minum (PDAM), Indonesian drinking water utilities. The project also aims to demonstrate effectiveness of such a system to increase the exchange and monitoring of information among communities, water service providers, and government, in order to improve water and sanitation services and long-term planning, particularly for the urban poor, in Indonesia.

The IWSMS project is being implemented in two Indonesian communities: Malang in the province of Java and Makassar in the province of South Sulawesi. The project is a collaboration between two U.S. based organizations, Nexleaf Analytics and Pacific Institute, and PATTIRO, based in Indonesia.

The goal and objectives of the program are to:

Goal: The goal of the Indonesia WATER SMS (IWSMS) Project is to create a highly accessible communication and tracking mechanism relying mainly on mobile phones (technically, an SMS-based system) to develop crowd-sourced data, and to demonstrate that it can be an effective tool to improve water and sanitation services for the urban poor in Indonesia.

Objectives:

1) engage residents, water utilities (PDAM), the informal water sector, and local government in two Indonesian metropolitan areas in order to document the information and tools needed by them to improve water and sanitation services, be more resilient to water insecurity, and increase coverage and reliability;
2) build an Indonesia WATER SMS System that aggregates resident data into a real-time electronic map (or "dashboard") on the state of water in a community, based on the identified priorities from Objective 1;
3) deploy the Indonesia WATER SMS Tool through a two-month pilot project involving at least 100 individuals in each pilot location, representing a range of income levels and at least 50% of

whom will be women; and institutionalize use of the generated WATER SMS data through the PDAM; and

4) evaluate and document the results of the pilot project, identify lessons learned, refine the Indonesia WATER SMS Tool, and disseminate the system. The WATER SMS Tool developed in Indonesia will be released internationally as an open-source platform called the WASH SMS System that can be applied and used for other sectors, including sanitation, hygiene, and health.

1.2 Collaborating Partners

The project is a collaboration between three organizations, Pacific Institute, a local Indonesian NGO partner PATTIRO, and NGO technology partner Nexleaf Analytics. Pacific Institute led the effort to develop the project concept in partnership with Nexleaf Analytics and PATTIRO, and holds the contract with USAID and serves as the contract administrator. Both Pacific Institute and Nexleaf are based in the U.S. A total of 24 staff work on the project, with a total of 15.9 FTE among the three organizations. The project is directed by a Project Management Team (PMT), comprised of leaders from each of the three agencies along with key project operational staff at PATTIRO. The PMT currently meets on a monthly basis. Information about the three collaborating partners is provided below[1].

The **Pacific Institute** (www.pacinst.org) conducts interdisciplinary research and partners with stakeholders to produce solutions that advance environmental protection, economic development, and social equity—in California, nationally and internationally. Founded in 1987, the Institute is known for its scientific integrity, long-term view, non-confrontational style, and quality research. The Pacific Institute is perhaps best known as a pre-eminent water research organization, having conducted extensive evaluations and assessments of many trends, opportunities, and threats in the Water, Sanitation, and Hygiene (WASH) sector. The Institute works at multiple levels – including local water districts, national and international policymakers, and community groups – to meet basic human and environmental needs for water, reduce the he risks of conflicts over shared water resources, and rethink long-term water planning. Pacific Institute has six staff working on the project with an average over the course of the project a total of 1.61 FTE, with one person based in Indonesia.

PATTIRO (www.pattiro.org) is an Indonesian NGO established in 1999, whose mission is to create and strengthen good governance through public policy advocacy. PATTIRO is implementing programs in 14 regions in the province of Java (Serang, Tangerang, Bandung, Semarang, Pekalongan, Kendal, Solo, Surabaya, Malang, Gresik, Banten, Garut, Tasikmalaya, Blora and Bojonegoro) and five regions outside of the island of Java (Jeneponto, Bantaeng, Lombok Barat, Pare-pare, Bone, Nusa, Tenggara Timur, Nusa, Tenggara Barat, Papua and Paupua Barat) and now in South Sulawesi with the WATER SMS project. Programs include improving public service access for the poor, budgeting in recognition of gender, strengthening citizen participation, monitoring expansion of local autonomy, voter education, and facilitating policy formulation for an oil and gas fund. To this project PATTIRO brings an understanding of local community, networking with the PDAM, area proximity, experience in terms of endorsing active community participation and organizing, experience in projects related to complaint mechanisms, and knowledge on creating models of complaint handling. PATTIRO has 14 staff working on the program with an average over the course of the project total of 11.1 FTE[2].

[1] Information drawn from USAID Cooperative Agreement AID-497-A-11-00004.pdf

[2] How PATTIRO calculates a full work week is not confirmed, both 35 hour and 40 hour work week are used by staff

Nexleaf Analytics (www.nexleaf.org) is a nonprofit organization based in the U.S. that aims to make mobile phone sensing technologies available to communities and organizations around the world. By combining the ubiquity of mobile networks with sophisticated server-side analytics, they are working to transform regular mobile phones into leading-edge data-collection instruments. Nexleaf Analytics takes a revolutionary approach to collecting data on environment, climate change, and public health. Nexleaf's platforms include mobile phone software, web portals for data analysis and visualization, and mechanisms to ensure system health and data integrity. Nexleaf has three staff on the project for an average over the course of the project total of 1.14 FTE.

The three organizations have come together with their unique set of skills to work on the project to meet the project objectives. During the first year of the project, the three organizations created white papers on their respective organizations' work and presented this work to the PMT over a series of conference calls to increase the collaborating partners' understanding of each other's organizations work and area of expertise.

The team has developed several administrative documents and tools to guide and/or report on the progress of the collaborative team's work. These included the following documents:

- Signed Memorandum of Understanding between the three organizations
- Performance Monitoring Plan and associated Year 1 and Year two plans
- Project Management Policy
- Sub-agreements between Pacific Institute and Nexleaf Analytics and PATTIRO
- On-line Cloud network on Huddle for information sharing
- Monthly progress reports, and quarterly reports[3]
- PMT and other significant meeting notes are prepared and available on Huddle

In addition to the above the project reports to be guided by USAID's Mandatory Standard provisions, which have been shared with the three organizational leaders.

1.3 Purpose of the Evaluation and Evaluation Outline

Pacific Institute secured the services of one evaluator to conduct a mid-term, interim review and final evaluation of the Indonesia WATER SMS project. The evaluations have been commissioned to monitor and assess general performance in implementation of the project, as well as specific achievement of the project objectives focusing on the areas below. The complete Terms Of Reference (TOR) for the evaluations can be found in Annex 2. This mid-term evaluation focuses on the areas indicated with a * followed by what section of the report the objective is addressed. Some of these areas have received more attention given the current phase of the project, with some project activities still underway. The remaining objectives will be assessed during the interim and final evaluations.

General Performance-

- Assess the major achievements of the project to-date in relation to its stated objectives and intended results.* (Results – 3.2 Assessment of Projects Work To-Date)
- Assess management factors important for delivery of the project.* (Results – 3.1 Assessment of the Collaborating Partnership and Management Factors)

[3] Quarterly reports are submitted to USAID, along with any key documents created by the project. Quarters are based on a calendar year.

- Assess the key factors affecting sustainability of the project.* (Results – 3.3 Progress on the Development & Deployment of the WATER SMS System)
- Assess and make recommendations on the key strategic options for the future of the project, i.e. exit strategy, replication, scale-up, continuation, major modifications to strategy

Specific Achievement of Objectives-

- Assess the documentation of information and tools needed by residents, PDAM, and the informal water sector in order to improve water services, be more resilient to water insecurity, and increase coverage and reliability.* (Results – 3.2 Assessment of Projects Work To-Date)
- Monitor the development of the Indonesia WATER SMS System to ensure that it aggregates resident data into a real-time electronic map (or "dashboard") on the state of water and sanitation in a community based on the identified priorities from Objective 1.
- Assess the deployment of the Indonesia WATER SMS System through a pilot project involving at least 100 individuals (at least 50% women, 60% below middle-income level); and institutionalization of use of the generated WATER SMS data through the PDAM.

The evaluation results are included in three sections: 3.1 includes an assessment of the collaboration as well as project management/administrative factors affecting the project; 3.2 includes an assessment of project activities to-date; and section 3.3 covers progress towards the development and deployment of the IWSMS system. A summary of findings and recommendations are included in Section 4.

2. Methodology

The mid-term evaluation was primarily a desk review of documents, but also included interviews with PMT members over Skype and two on-line surveys. This report documents findings based on over 15 days of work between June 1, 2012 and June 26, 2012, during which project activities, including development of the IWSMS system, which was still underway. The evaluation included the use of the following methods:

- Briefing by IWSMS program manager
- Interviews with IWSMS Project Management Team members
- On-line survey of IWSMS collaborating project partner staff
- On-line survey of IWSMS project Advisory Committee Members in Malang and Makassar
- Desktop review of program and background documents/reports created to date

3. RESULTS

3.1 Assessment of the Collaborating Partnership & Management Factors

The TOR called for an assessment of management factors important for delivery of the project, including the following:

- Are plans being used, implemented and adapted as necessary?
- Are there capacity gaps?
- Describe working relationships within the team, with partners, stakeholders and donors.
- Internal and external communication.

While the focus of the evaluation is on the programmatic aspects of the project, given the project is a collaboration, it was important that an assessment of some of the various collaboration components, which can have a significant impact on a projects' quality, and whether or not project outcomes are achieved, should also be assessed (Wolf, 2002). To evaluate management factors and the collaboration the evaluator looked to responses from Project Management Team (PMT) interviews, results from the collaborating partner survey and program documents.

In terms of program management, the project has created plans to guide and document progress on specific activities. Key planning and monitoring documents include the Performance Monitoring Plan Matrix, and complementary narrative documents, as well as specific year one and year two plans. These plans identify project objectives and associated activities and indicators as well as identification of what data will be used to measure progress towards the specific objective. The majority of indicators are input or output based and while they include responsible team members, specific due dates for associated activities are not indicated. This was also found in most meeting notes, with action items noted and responsible party indicated most of the time, but often no due dates indicated. Monthly and Quarterly reports also look to serve as planning/program management documents. Individual organizational monthly reports include due dates for some activities. While the monthly reports track activities according to overall project objectives/activities it is not always clear if previous months identified action items were completed in subsequent months, given the structure of the reports.

This assessment did not identify critical capacity gaps, however some areas were identified as areas where some felt more information and/or training would increase the project's effectiveness. For example, PMT members interviewed indicated that some PATTIRO staff would like, and would benefit from, additional training related to WASH in general as well as to technical components of the to be created SMS system. Staff from PATTIRO indicated that such training would increase their ability to relay and gather information from community stakeholders. It is important to note that all organizations prepared and presented white papers on their organizations' area of expertise at the beginning of the program. In addition, Pacific Institute conducted presentations on urban water systems and interactions among stakeholders and discussions related to field surveys and fundraising techniques[4] and meeting cost share fundraising obligations for staff working on the project. None of the staff interviewed cited training as shortcoming, but rather as a desire to learn more about the field to increase their professional capacity. Refresher trainings on some topics and potentially new areas, given some turnover in PATTIRO staff, as well as the project's mid-point might serve to refresh the overall team's knowledge. Pacific Institute has already made plans for its upcoming July 2012 trip to Indonesia to host a forum to boost PATTIRO's understanding of the SMS system and increase their ability to talk about the system confidently in the field.

In addition, it appears that the administrative burdens and fiscal standards associated with the USAID contract, in particular fiscal reporting and fund raising cost share requirements, were challenging PATTIRO in particular. This evaluation does not include an evaluation of the project's fiscal activities; however, it was noted that the project is continuing to address these concerns, and both will be discussed with PATTIRO staff in Pacific Institutes upcoming trip to Indonesia. With respect to cost sharing, the proportional contribution for each collaborating organization towards the total cost-share was determined and agreed upon by the six PMT members during the application process, and confirmed at the signing of the cooperative agreement with USAID and sub-agreements. Project kick-off

[4] This presentation included a document *Step by Step Guide to Finding a CSR Partner 25/02/12* which outlines the process for identifying a Corporate Social Responsibility (CSR) Partner

meetings included an overview of USAID's fiscal reporting requirements however; current PATTIRO fiscal staff were not in attendance at that initial meeting; knowledge and information may not have been transferred to key staff. Pacific Institute made USAID's Mandatory Standard Provisions available to partners prior to the kick-off meeting, but few staff indicated familiarity with what these standards were when asked during the interviews. All partners indicated that USAID administrative reporting requirements, both fiscal and programmatic were surprisingly burdensome and required a significant amount of effort that took away from programmatic activities. Pacific Institute is particularly concerned that they comply with USAID reporting requirements, as the official contractor for the project. They also note that their role as the contract administrator makes for an unbalanced collaboration and are concerned that their administrative role not affect the programmatic collaboration. Overall, relationships among the collaborating partners and community stakeholders looked to be positive (also see discussion below related to survey findings) and overall productive.

There were some concerns raised by some about the amount of time it was taking to create the WATER SMS system. Most interviewed recognized that the tradeoff between gathering high quality input needed to create a system that met end-users needs and the need to provide a "product" to community members to both respond to and test was a balancing act. For PATTIRO staff in particular, the need to have something to show the community was often identified as a need. While PATTIRO staff appreciated the fact that they were in the development phase, they felt community members want to "see something tangible" and staff felt they were limited in their ability to respond effectively to community member's interests.

The established Project Management Team (PMT) works to provide overall guidance to the project. A review of meeting summaries and attendance records indicates that in 2011 PMT meetings were held two to three times a month and in 2012 meetings have dropped off from three meetings in January 2012, to once a month meetings. Evidence was available that the project has discussed whether the frequency of the meetings was adequate and has adjusted the scheduling of meetings over time. Overall, individual team member attendance in 2011 ranged from 4 percent to 87 percent, with an average of 47 percent, while in 2012 individual attendance has ranged 0 to 100 percent, with an overall attendance average of 48 percent. Most noticeable about the change from 2011 to 2012, is that attendance by three staff in leadership roles from Nexleaf and PATTIRO, has dropped to zero in 2012, where attendance by these three staff was four, 30 and 34 percent in 2011, where their FTE was o.25, 0.05, and 0.25 respectively. The combined FTE of these three staff is 0.80 over the xourse of the project. While level of effort reports submitted by PATTIRO's leadership team do not indicate effort has dropped off since the reports were instituted, not having PATTIRO leadership at PMT meetings has been felt by others in the collaboration. There is concern that their absence potentially lessons the ability of these meetings to be constructive for the overall collaboration and strategic planning aspects of the project. The evaluator was only able to interview one of the PATTIRO leadership staff (Program Development Director), and neither of the two leaders completed the on-line staff survey. The Program Development Director indicated that her role in the project had dropped off considerably since the beginning of the project due to other competing projects, with her now giving approximately eight hours a week on average, and mainly focused on giving advice related to strategy and financial areas in particular.

There was concern from some that while the project has entered a development phase that is particularly focused on the creation of the technical aspects of the WATER SMS system, that broader strategic planning with staff in leadership roles from the three organizations had dropped off over the past six to eight months. This was particularly worrisome for some specific to planning related to working on ensuring longer-term uptake and sustainability of the WATER SMS system.

There are a variety of internal communication mechanisms available to project staff and overall communication mechanisms look to be appropriate and sufficient to meet the project needs. However, all staff are not using the available mechanisms; which some reported has resulted in having to repeat prior discussions, in some staff not following-up on previously agreed upon tasks and/or being prepared for meetings. This is reported to have resulted in lost project time. The on-line survey asked specific questions related to communication and information sharing; results of which are below. The extent to which external communication with community stakeholders is taking place looks to not be sufficiently documented or clearly understood by the evaluator. While engagement sessions (learning sessions, focus group discussions) were well documented, documentation of other meetings and/or contacts with community advisory groups was limited or not available. In addition, translation of the Multi-Stakeholder Dialogue (MSD) meeting documents, which took place in February 2012, has yet to be completed.

As discussed above a survey was created using Survey Monkey to gather information from staff. The survey covered three main areas: 1) evaluation of the collaborative partnership among the three agencies, 2) evaluation of the quality of the project activities completed to-date and 3) progress and usefulness on the work to-date and feedback on the strengths and challenges in the two target communities of Malang, East Java and Makassar, South Sulawesi. The survey consisted of thirteen questions and was available in both English and Indonesian languages. A copy of the survey tool is available in Annex 3. The survey was open for eight days. Staff were informed of the availability of the survey through Survey Monkey as well as through e-mails from program staff and the evaluator. Three reminders were sent to non-respondents to encourage completion. The survey was sent to all 20 staff from the three agencies involved directly in the collaborative work. Of the project's 20 staff, 17 responded, for an 85% response rate[5]. Figure 1 below provides a summary of respondents by organization. The majority of the staff responding to the survey have worked on the project for one year and five months.

Figure 1: WATER SMS Collaborating Partner Survey Respondents by Organization

All respondents were overwhelmingly positive about the collaboration, the role and expertise each brings to the table and how the organizations have worked well together as captured by this one statement "bisa saling membantu dalam melaksanakan program, iya kami telah bekerja dengan baik" (English translation – "able to help each other in implementing the program, yes we have worked well!").

[5] Non respondents included Dini Mentari* (PATTIRO, Program Development Director), Ilham Cendekia (PATTIRO, Program Director) and Nithya Ramanathan* (Nexleaf, Principle Investigator). *These two individuals participated in interviews over Skype for the evaluation.

Staff were asked to rate the overall collaboration between the Indonesia WATER SMS Partners on a scale of 1 to 5 (1 low to 5 high) in five areas: 1) level of communications between partners; 2) level of trust and respect among partners; 3) level of appropriate sharing of project knowledge and information between partners; 4) sense of feeling personally valued on the project and 5) rating of their personal level of contribution of the project. See Figures 2 and 3 for results for questions 2a through 2e. For all questions, with the exception of question 2c, the majority (over 50%) rated the level to be either a 4 or a 5 (high) on the scale. For question 2c, 65 percent rated the level of sharing among partners to be either a 2 or a 3. Comments related to Q2c, as well as interview comments with PMT members, indicate that while there is a fair amount of information exchange between partners as well as available on Huddle, that information sharing has dropped off since the beginning of the program. This is reportedly due to two main factors, fewer meetings are taking place now, as compared to the beginning of the program and the current technical nature of some of the information related to the development of the SMS platform is difficult to communicate over the available mechanisms, or is not understood by all. Some field (Malang and Makassar) staff reported that few meetings took place in the field among project staff, and that they relied solely on information communicated from the PATTIRO office in Jakarta. Some staff indicated that perhaps too much information is shared, particularly over e-mail and that, information is perhaps "excessive" and that more "strategic information" needs to be shared among partners. Overall, respondents rated trust and respect among partners fairly high with an average of 3.41, and feelings that respondents were personally valued at an average of 3.44. However, 24 percent (4 staff) rated trust and respect on the low end (rated as a 2) and two staff rated their feeling of being personally valued at a 1 or a 2; all of these staff were from PATTIRO. There were insufficient or no comments provided to provide a clear understanding of these low ratings. One person, also from PATTIRO, rated their feeling of the personal value on the project as a five.

Figure 2: Rating key factors among collaborating partners Questions 2a through 2d

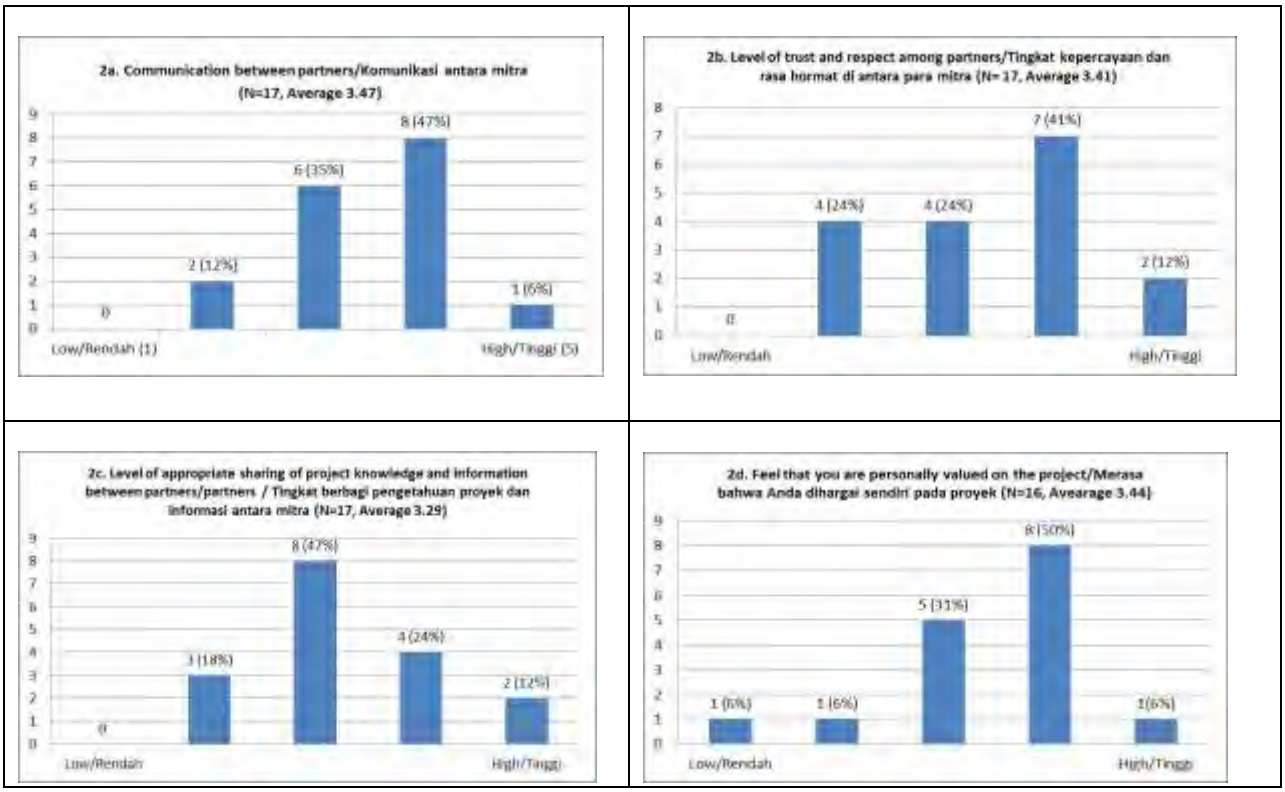
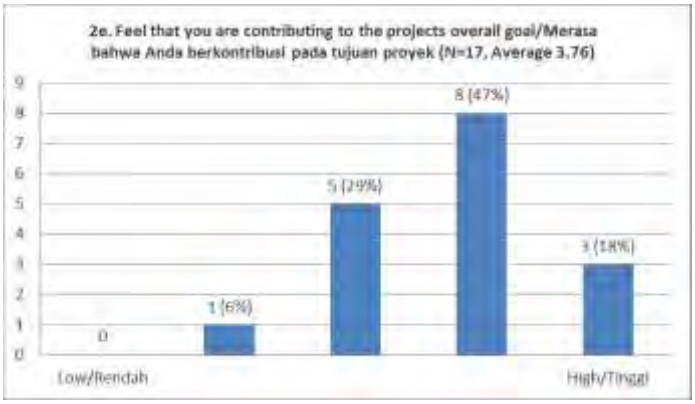


Figure 3: Rating key factors among collaborating partners Questions 2e



Interviews with PMT participants indicated that the collaboration was going well and that there was an overall high level of trust among the partners, and commitment to achievement of the project outcomes. All staff interviewed indicated that each of the partners bring to the collaboration a unique and strong set of skills that without any one of the partners the ability to achieve the overall project objectives would not be possible. All also indicated that communication is challenging at times, given the time and language differences and some reported cultural differences were also sometimes a challenge. The latter in particular was noted as sometimes problematic related to differences in how some respond to posed questions, e.g. to not wanting to be too direct and/or openly admit to not understanding some questions. Those interviewed indicate that good systems were in place, particularly Huddle[6], to provide mechanisms for information sharing among partners.

3.2 Assessment of the Projects Work To-Date

Processes and Products Produced To-date to Document Information and Tools Needed

The TOR called for an assessment of the major achievements of the project to-date, specifically in relationship to stated objectives and intended results. An assessment of objective one the "Documentation of information and tools needed by residents, PDAM, and the informal water sector to improve water services, be more resilient to water insecurity, and increase coverage and reliability." (objective 2) was of particular importance for this mid-term evaluation. Additional questions related to this evaluation areas are in the TOR in Annex 2. The evaluator looked to responses from Project Management Team (PMT) interviews, results from the collaborating partner and stakeholder surveys and program documents.

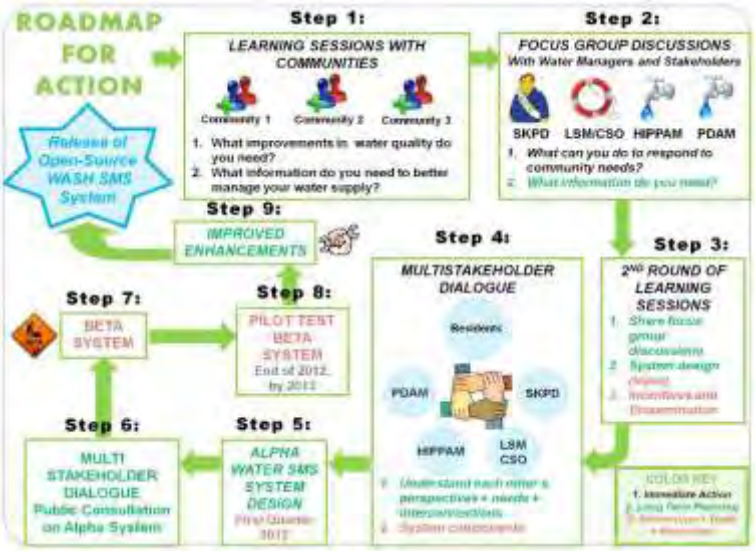
The project has accomplished a significant amount of work in the first 18 months, particularly towards making progress on the projects first objective, which has several key activities that required successful completion to ensure implementation of the WATER SMS system. The team undertook an assessment of potential communities to confirm and determine the two pilot locations in January 2011. Malang was identified during the pre-proposal period as a potential site and was confirmed to be one of the sites through the planning process. The selection criteria along with the findings are documented in the

[6] Huddle (http://www.huddle.com/) is an on-line cloud-based collaboration platform. The project acquired free access as an NGO to use the system shortly after project implementation. The system contains most program documents, as well as calendars and information sharing/discussion platforms.

Indonesia WATER SMS Project: Report on Assessment for Selecting Location 2. The process was well documented and resulted in the selection of communities that met the criteria; and for Makassar resulted in the selection of a community with significant water and information needs. Two baseline reports were completed for the project to provide baseline data about the targeted communities. The reports provide basic information about the targeted communities and in particular their access to mobile/use of mobile phones and the internet, involvement in community groups and water access. The quality varied between the two reports; the Makassar report provided a better overview of its methods and sample selection and more detailed findings. The survey tool used for the interviews was not provided in either of the reports. The project looked to Makassar survey respondents when identifying participants for FGDs, whereas in Malang PATTIRO looked to its existing contacts with community centers to identify FGD participants. It will be interesting and important to see if PATTIRO's previous experience working in one community versus no experience in the other has an impact on the final project outcomes.

Among the significant activities of the first phase of the project were meetings with community stakeholders including citizens and formal and informal water utility providers. These meetings are outlined in Figure 4 IWSMS Roadmap for Action below, which outlines both the steps to be undertaken by the project and associated stakeholder meetings to achieve the end goal of an "Open-Source WASH SMS System" that will bring about improved enhancements to the water system. The project currently is in the creation Step of the "BETA System". Given that this activity is still underway, the evaluation focused primarily on Steps 1 through 4, with some focus on step 5 and 6 as information was available for review.

Figure 4: IWSMS Roadmap for Action



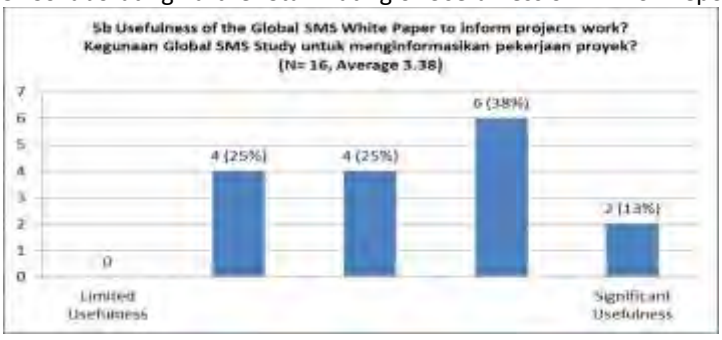
The various stakeholder sessions outlined in steps 1 through 4 in the Roadmap for Action looked to have been effectively implemented. Some PMT members were particularly complimentary of PATTIRO's work in pulling the sessions together and for how they were facilitated, pointing out in particular the benefit of having two different sessions during the learning sessions, one of which focused on water quality improvements needed by the community and the second focused on information needs. Findings from the learning sessions and FGD were captured in meeting notes, quarterly reports and in a PowerPoint presentation for the MSD meetings. As indicated earlier the notes for the MSD have yet to be translated into English, and thus were not considered in the evaluation. The project looks to be

taking into consideration the information raised in the various sessions in the WATER SMS system design, although to what degree they have is still unknown given the Beta WATER SMS system has been not completed. Two items identified in these sessions that were also raised as areas of potential concern for the project during interviews and in the collaborating partner survey will need to be addressed throughout the remaining planning and implementation phases of the project:

1) Malang's PDAM already has a complaint system in place and therefore it will be important that the developed system consider, compliment and strengthen the existing system to ensure long-term buy in and adoption both by the water utility and customers.
2) Makassar has significant water access issues and limited resources (financial and staffing) to address identified needs and to respond to customer complaints.

The project also completed two additional reports to inform the project's work. The first a Comparative Study tour report *Best Practices of SMS Communication Systems in Indonesia* captures lessons learned from how local governments and PDAMs in Indonesia are using SMS-based systems for communications. The second *mWASH: Mobile Phone Applications for the Water, Sanitation and Hygiene Sector*, which looks at how mobile phones are being used in development around the world. Both reports are of high quality and look to have informed the IWSMS project planning and design efforts. In addition, the *mWASH* report has been released publically and should serve to inform the use of mobile phones in broader WASH development efforts. Collaborating partners looked to rate the usefulness of the report across the spectrum, which looks to be correlated to the staff persons position and role in broader than IWSMS programming (see Figure 5).

Figure 5: Collaborating Partner Staff Rating of Usefulness of *mWASH* report

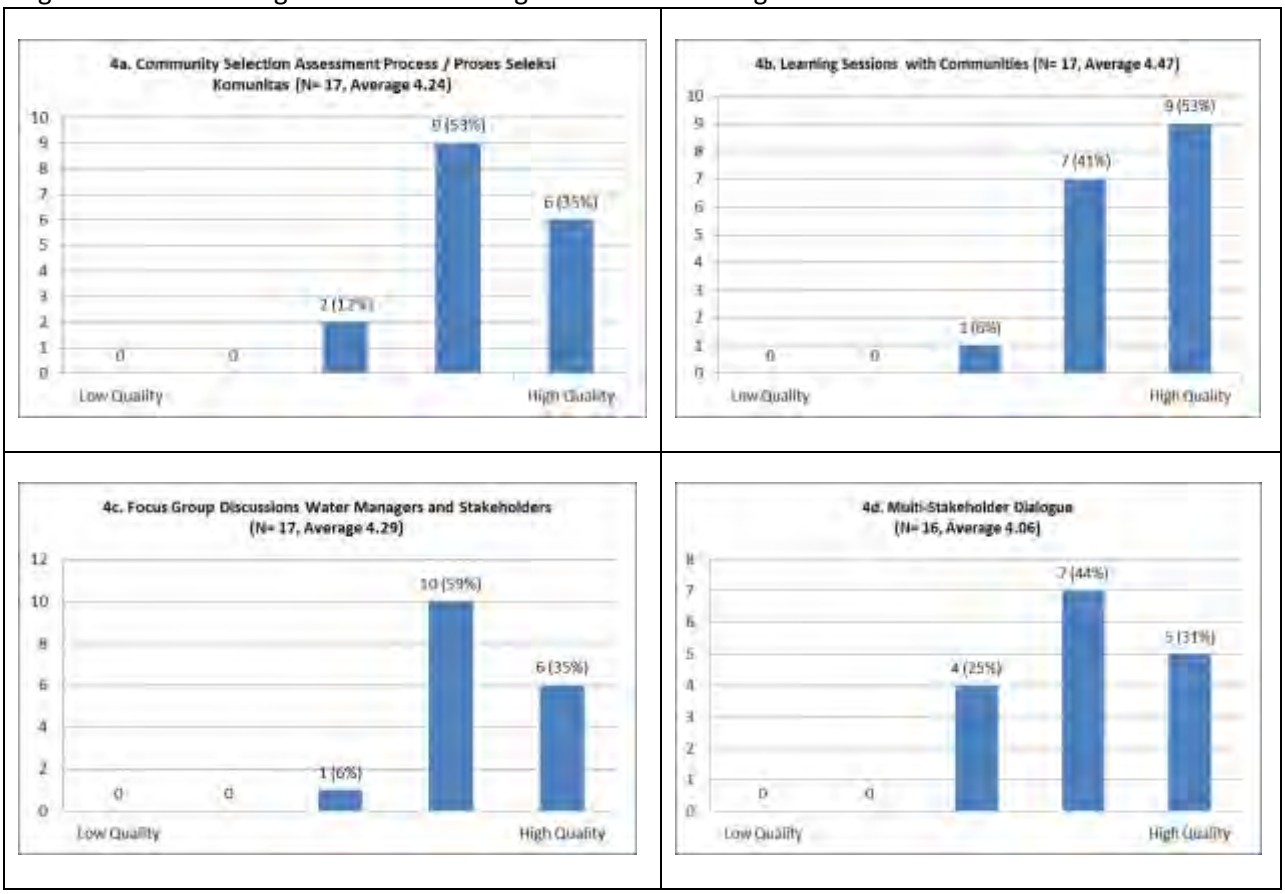


Assessment of Quality of Work To-date on the Documentation of Information and Tools

Collaborating project partners were asked to rate (on a scale of 1 to 5, with 1 low to 5 high) the overall quality of key project activities associated with the projects performance monitoring and evaluation plan in objective 1 (see Figure 6 for results for questions 4a to 4d). Overall staff rated all activities completed as high quality. MSD's received the lowest ratings, however quality of these was still rated high. No comments were provided to indicate why MSD's were rated lower than the other processes. Overall comments related to Questions 4a-4d indicated that meetings ran smoothly, that the community was engaged and that PATTIRO did a good job of facilitating the process for these meetings. One concern of note was raised that the processes involved others not typically engaged, e.g. HIPPAMs, citizens and other NGOs, and that this may have potentially raised hopes among these users but that the current system as it is being designed has tended to "become narrowed only to cooperation between citizens and the PDAM only." While the informal water sector has been included in the various planning processes their specific needs, and to what degree the system will address these needs was not found to

be well documented. This is particularly the case in Makassar where no formal association exists for informal water providers. Engagement of informal water providers and/or specifically HIPPAMs was either not brought up during PMT interviews, or was identified as an area either not getting much attention, or unknown to the person being interviewed.

Figure 6: Collaborating Partner Staff Rating on IWSMS Planning Processes



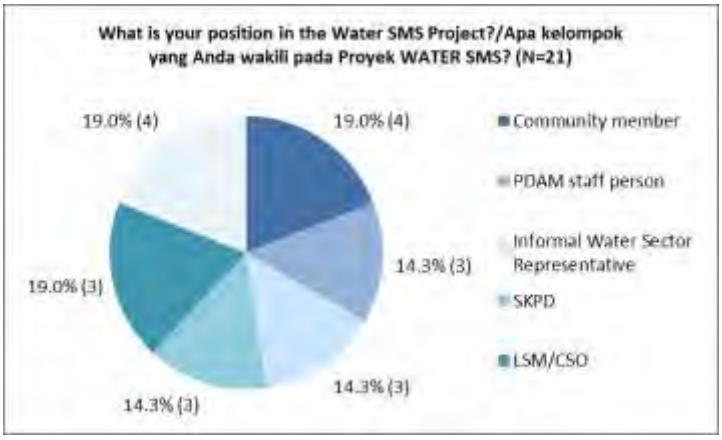
Community Stakeholder Survey Results

As the evaluation was conducted outside of Indonesia a survey, using on-line survey tool Survey Monkey, was created to gather input from IWSMS Community Advisory Committee members, key stakeholders in the project7. The survey consisted of four respondent descriptive questions, and five primarily open ended questions designed to gather input on stakeholder involvement in the project, whether or not stakeholders feel their perspective is being considered in planning efforts, and their sense of how useful the ultimate WATER SMS system will be in addressing the community and water provider's needs. One general open-ended question was included to give stakeholders an opportunity to share other information they felt was important for the evaluation. The survey was translated into Indonesian. A copy of the survey is in Annex 4. Community Advisory Committee members were notified of the survey through either the external evaluator by e-mail and/or through PATTIRO staff by a phone call, personal contact and/or by e-mail. The survey was open for 10 days, which included a two-day

[7] It is not clear when advisory committees were formed or how frequently they meet or focus of meetings. Malang's looks to have been formed in May 2012 with the Makassar member list provided in the May 2012 report as well. Quarter 1 2012 report indicates the advisory teams will be formed in the second quarter.

extension to allow PATTIRO staff to input surveys from Makassar respondents who were not able to enter the surveys on line. There was a total potential of 20 respondents (10 from Malang and 10 from Makassar); 21[8] persons completed the survey with 11 from Makassar and 10 from Malang. Sixty-seven percent of the respondents were male, 33 percent were female. The role of the respondents is provided in Figure 7 below; four respondents indicated their position as other. Of the others, three identified their role as being from the media, Chairman of the BPABS Committee (Water Supply and Sanitation Board), and a local finance facilitator. One did not indicate their role.

Figure 7: IWSMS Community Advisory Committee Respondents Position



Respondents were asked how they have been involved in the WATER SMS project. Responses to this question varied greatly from respondents providing examples of activities they had participated in, for example eight specifically mentioned involvement in learning sessions, FGD or the MSD or all three processes. Others responded by indicating their role, e.g. as a representative from a NGO, other government organization, local community center, or the PDAM. Ninety-five percent of the respondents felt that their perspective was being considered in the development of the WATER SMS project. The one person who reported that they did not feel their perspective was being considered provided no comments. Comments indicated that committee members felt they were valued because of the role and/or experience they brought to the process, e.g., "*Because I have relationship with BPABS and with WATER SMS*". In addition, the responses indicated that Stakeholders felt the project is going to make a potential difference in their communities' water needs. As indicated by the following comments, "*Because the project mentioned also makes important contributions to Malang city community in clean water service as a need which is very vital*" and "*we want a system which is safe, user-friendly and is maximally beneficial for the company*".

Stakeholders were asked how useful they thought the WATER SMS system will be in addressing both the **communities** and **water provider** needs. Respondents overwhelmingly indicated that they felt the system would be useful to **communities**. While one person stated that in the short-term they are pessimistic about the system, in the long term they said it will/may help to "*overcome the various problems*". Respondents noted that the system will "*be easily accessible*", and useful because the information will come "*directly from the community*". Several respondents indicated that the system will be useful because it will enable exchange of information between water providers and the community *"…a space is provided for people to give advice, constructive criticism to clean water providers…*" and will

[8] Makassar has two people filling one of the PDAM roles on the advisory committee

provide a "*means to facilitate complaints*" and to "*accelerate resolution of customer complaints*". Several respondents indicated that the system would be useful to addressing the communities' longer-term water needs. As with responses on the usefulness of the system to communities, respondents also felt the IWSMS would be useful to the **water providers**. The most frequent comments looked to indicate the system would be useful because it would be providing water providers with much needed information from water users that is "accurate" about problems and outages in the water system and provide information that would enable water providers to map those problems. Respondents also highlighted the IWSMS system's ability to provide a mechanism for information exchange between providers and the community, and one person indicated between PDAM and the informal water sector.

The above responses indicate a high level of satisfaction with their involvement in planning for the system and a high level of hope that the system will be useful to both communities and water providers. However, the final open-ended question which, provided respondents an opportunity to share anything they thought important to the evaluation and the future of the IWSMS project indicates that stakeholders have some concerns. Some of these comments were related to wanting to see the system implemented soon- "*I hope this project can achieve the appropriate target", "to soon be pilot tested in Malang*" and "*Preferably soon an overview will be made from the application interface which will be built*". The majority of comments from respondents however raised questions concerning sustainability of the system after the project was over, including a concern related to associated long term costs to maintain the system. For example, "*what about the sustainability of the program after 3 years*", "*need to think about or discuss together sustaining the system*", "*how about the cost of the IWSMS system when this program finishes*" and "*about the development of water sms in the future*".

Other information from e-mail communications, meetings and reports indicate that there was a point in the project when PDAM in Makassar engagement in the project slacked off. During 2012 quarter one, the project strategy to address these concerns was focused on increasing communications with PDAM executive staff to ensure that they had accurate information about the IWSMS project. In March, a meeting was held with PDAM leadership and members of their customer response team, and since that meeting there is indication in meeting notes and monthly reports[9] that additional meetings have taken place, which have proved to be productive. In May, both Malang PDAM and Makassar provided detail responses to requests from Nexleaf Analytics related to the development of the WATER SMS system and on-going dialog between project staff and the two PDAMs continues. While it appears Makassar PDAM's commitment to fully engage in the project has been retained, this is an area that PMT members in particular indicated will need on-going attention as the project moves forward.

Progress on Development & Deployment of the IWSMS

The TOR calls for an overall assessment of the development and deployment of the IWSMS system. Given the phase of the project the evaluation of this work, which is still underway, will be conducted primarily in the final evaluation. The following section highlights progress towards achieving project Objectives 2 and 3 to date based on responses from Project Management Team (PMT) interviews, results from the collaborating partner and stakeholder surveys and program documents.

Overall, members of the PMT felt that the project is on target to complete the project objectives within the project's three years.

[9] PATTIRO (March and April 2012) Indonesia WATER SMS Project Monthly Progress Reports,

Of the activities outlined in Objective 2 the project has completed an assessment of potential technical partners, the results of which are included in the ***IWSMS Technical Partner Report***. Nexleaf and Pacific Institute also completed the ***mWASH: Mobile Phone Applications for the Water, Sanitation, and Hygiene Sector*** report, released in May 2012 as part of this project's work. The latter report provides an analysis of how mobile technology applications are already being used in general in development work, with a particular focus on how they are being used in WASH. The report is available on line at http://www.pacinst.org/reports/mwash/full_report.pdf. The report provides a comprehensive analysis of the field and PI is hoping for wide distribution of and discussion of the report's findings through various venues, including the fall 2012 Water and Health Conference: Science, Policy and Innovation at UNC.

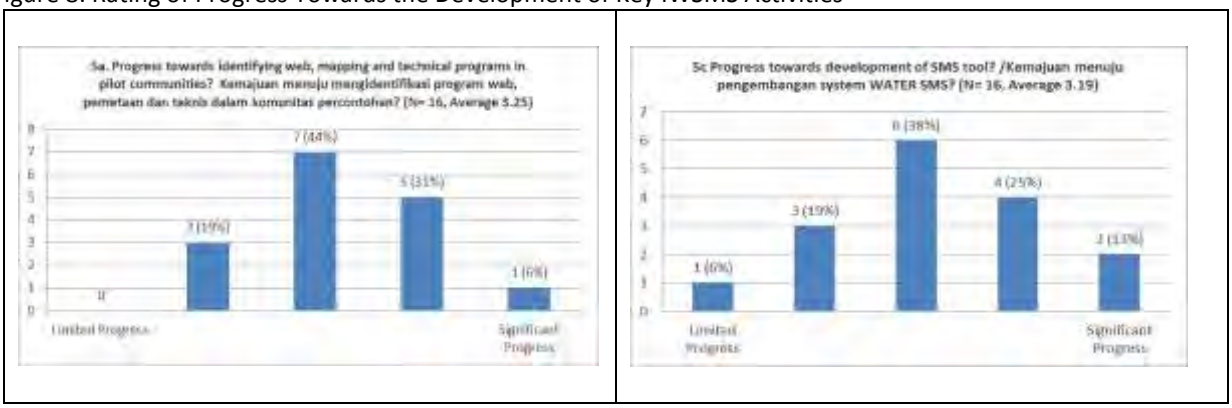
The Technical Partner Report served as the foundational document for the identification of a local technical partner to assist with implementation of the IWSMS system in the pilot communities. It is USAID's and the projects goal that a local technical partner will eventually manage the IWSMS system after the contract is over. The report was provided to USAID in January 2012, however due to various delays a technical partnership was not confirmed for several months, with an MOU not signed with the selected technical partner *Perkumpulan AirPutih* until May 2012. Nexleaf Analytics indicates that they are about a month behind towards implementing the pilot, in part due to challenges identifying a technical partner in Indonesia, which they and others indicated was more time consuming than anticipated. All felt, that the delay in implementing the pilot would not ultimately affect obtainment of the overall program goal and available documents have outlined some of the key steps to be taken, such as in the May 2012 IWSMS Pilot Project System Development Progress Memo (quarter 2 2012 Key Activities To Date and Upcoming)

Nexleaf Analytics completed development of the Alpha WATER SMS design, and with the assistance of PATTIRO was in the process of working on specifications related to the collection of SMS messages over the last several months. In particular PATTIRO worked with the community to collect approximately 800 sample reports regarding water delivery/usage that has been extremely helpful to informing the design of the system, categories used and the methods for associating reports to a specific category. This activity was not included as an activity in the project's original Performance and Monitoring Plan. Nexleaf Analytics has created various tools to assist in the achievement of Objective 2 including a detailed *Implementation Plan and Timeline for WATER SMS* document for use by PDAM and PATTIRO, which covers implementation features, interim pilots to be undertaken and completed tasks for the months of February 2012 through January 2013 and a document that outlines key issues for follow-up. While these tools look to be helpful in guiding staff towards completion of tasks associated with objectives 2 and 3 in the field the documents lack specific deliverable dates and responsible person(s) for completing the tasks; in additioncommunication looks to be the main challenge to ensuring tasks are satisfactory completed. Communication challenges identified by partners include the following (see also Results Section 1):

- General misunderstanding of some of the technical language related to the system being created and how to effectively transfer this information onto community stakeholders
- Potential cultural differences related to differences in understanding of what is needed in response to when questions are posed
- Real time and language difference
- Ensuring that information needing to be shared with community stakeholders is being accurately communicated and translated by field staff and that feedback received is also accurately captured in return

Feedback obtained from collaborating project partners in the staff survey on the progress towards the development of the IWSMS components vary greatly, particularly in comparison to ratings obtain on other survey questions. Respondents were asked to rate (on a scale of 1 to 5, with 1 low to 5 high) the progress on two specific project activities. Results for questions 5a and 5c are included in Figure 8 below.

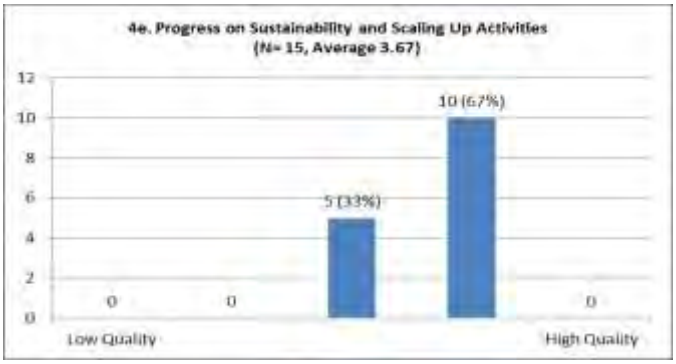
Figure 8: Rating of Progress Towards the Development of Key IWSMS Activities



Few comments were provided to elaborate on individuals ratings. Of those provided, some indicated that it was too soon to make an evaluation given that many of these things were still in progress. Others indicated that this project is exploring new territory therefore, it should be expected that delays would happen along the way and that lessons were learned along the way that would result in doing some things differently or better, if they were to start all over. Given the phase of the project and input obtained in interviews the project looks to be on target to completing these activities, however it will be important that the team stays focused, particularly over the next several month to allow sufficient time to pilot and assess the implemented system.

One key objective of the project is that it be sustained after the contract ends in 2013. Again, given the current phase of the project this evaluation area will be further assessed in the interim review and final evaluation report. Staff were asked to rate the project's progress towards sustaining and scaling up activities in the collaborating partner survey; Figure 9 provides survey results. Overall ratings are high.

Figure 9: Collaborating Partner Rating of Progress on Sustainability and Scaling Up



Issues related to sustainability were brought up in the community stakeholder surveys and in the MSD meeting, per the notes provided in the January-March IWSMS Quarterly Report. They were also raised in PMT interviews. Issues concerning sustainability identified during the evaluation include questions related to costs of maintaining the system over the long-term including management of the system, the need for other government agency and Musrenbang (government and other community stakeholder) involvement, availability of computers for the community to access the public IWSMS web site and local technical capacity to maintain the system.

Discussions related to sustainability have taken place as early as May/June 2011, where according to PMT and staff meeting notes, the team discussed moving some project tasks associated with sustainability (Task 13) from year one to year two and three. In November 2012, the PMT began to have more extensive discussions related to sustainability; particularly related to planning for the Expert Meetings outlined in the Cooperative Agreement. Pacific Institute prepared two PowerPoint presentations, one to to guide the PMTs discussion related to sustainability and the other *Water SMS Charting the Path Ahead: Distilling Lessons Planning for System Design and Sustainabilit*y. The latter captures information, lessons learned and findings to-date from implemented project activities associated with sustainability. The project's current activities associated to working on sustainability look to be focusing on securing the services of external consultants who will conduct research and facilitate the Expert Meetings on the topic of long-term sustainability of the SMS system and development of a scaling up plan. To-date focus has been on the development and implementation of the IWSMS system to ensure project success and this focus will continue. The team will need to make a similar concerted effort to place sufficient focus on planning for long-term sustainability and scalability of the project. This may require some adjustments in staffing and associated responsibilities.

4. Synthesis and Recommendations

4.1 Synthesis

The project has accomplished a significant amount of high quality work in the first 18 months of the project and looks to be on target to meeting its overall project goals. That this has been accomplished with three organizations that have not worked together before and are working transnationally in different time zones, in different languages, and entirely different expertise focuses is to be commended. All of the staff who participated in interviews, and/or completed the survey, as well as community stakeholders look to be very committed to the project's end goal and to the longer term intention of improving water services for the urban poor of Indonesia. While there is room for improvement in some areas of the project, no significant findings were identified that indicate the project might not achieve its stated objectives at this stage of the project. As indicated, there is a significant amount of work remaining to be done to develop, implement and pilot the project and to see that the project is sustained and taken to scale. To ensure ultimate success of the project and implementation of the remaining activities the team will need to sustain its own vigor, and perhaps reengage some of the PMT leadership team, over the next 18 months of the project. There is some concern that administrative struggles will impede progress or will continue to distract from the broader tasks of the project. While all projects are challenged to one degree or another with administrative burdens that get in the way of the "real work", the IWSMS project has created a very strong team and a cadre of tools that should assist in keeping the staff focused on project deliverables.

4.2 Lessons Learned

The IWSMS project is complex and has resulted in a significant number of project documents over the course of the first 18 months of the program, many of which were reviewed for this evaluation. The Roadmap for Action graphic was particularly helpful to understanding the project's processes and suggest that other flowcharts, and/or graphics, might be helpful to assisting others not involved in the project on a day-to-day basis understand the project, the various targets/activities and associated key project documents or products.

For the evaluation, the decision to conduct on-line surveys added important information to the evaluation, but it was not initially included in the evaluation design. In the future, adequate time needs to be set aside when conducting on-line surveys to allow time for translation, dissemination, response time and analysis. In addition, it would have been helpful to "kick-off" the evaluation with a conference call so that the evaluator can introduce himself or herself and discuss the process, expectations, etc. While an excellent introductory e-mail was sent out by the PI program manager such a call may have alleviated any fears on the part of some about the evaluation and garnered more buy-in to the process, time lines and expectations. Also, as the TOR presented the evaluation as a participatory evaluation, this would have potentially provided opportunities for more engagement in the evaluation process.

Better documentation of the details for some of the IWSMS project processes would assist in providing a better picture of these activities for the evaluation and for overall documentation purposes. In particular, quantitative data related to engagement sessions (e.g. number of respondents/participants by gender/role, number of participants who were involved as a result of participation in the baseline study vs. their role in the community, number of people who had X vs. Y concerns, etc.) would help to add weight to identified concerns from the respective stakeholder perspectives. In addition, the methods, specific to how the baseline studies were conducted, could have been better documented. For example, the report indicates that households were randomly selected, but does not provide enough details on how individual households were selected randomly and the reports do not include any information about the limitations or challenges conducting the surveys. The reports also do not indicate when the surveys were conducted. In addition, the baseline survey could provide more specificity in some areas. For example in the Makassar report 45 percent of respondents indicated that they worked in "other professions", but no indication of what these professions were is provided. Large number of "other" responses should always be described and the number of respondents, along with the percentage of respondents should also be provided. While questions related to computer access looked to be helpful to the project, it would also have been helpful to the project to see frequency of use of computers, which would have helped to better assess experience in addition to access. Questions related to type of water access could also be improved to enable breakdown by specific water sources accessed, in addition to whether or not the water is provided by PDAM. This would provide data for long-term impact of the IWSMS system, should that possibility arise in the future.

4.2 Recommendations

Program Management and Collaboration Recommendations

Program Management:

1. Consider adding timelines and due dates for key activities to be accomplished for the remainder of year two and for year three in the Performance Monitoring Plan (PMP)

2. Consider adding more specificity related to the activities that will guide the further development of and implementation of the SMS system in the PMP.
3. Consider adding outcome measures to assess the impact of each of the objectives in the PMP.
4. Discuss the need for increased PATTIRO leadership staff participation in PMT meetings, particularly as it relates to their role in planning for implementation of the WATER SMS system and sustainability of the program (project objective 3) and adjust accordingly.
5. Consider creating a simple sign-in sheet or record for community meetings, e.g. community advisory committee meetings and other informal meetings with community members that tracks date/time of meetings, meeting purpose/agenda, accomplishments and persons in attendance that can easily and consistently rolled up for monthly reports.
6. Consider mechanisms for including field representative staff in some PMT meetings or components of meeting, to ensure that the field is included in broader planning, particularly as it relates to their upcoming work.

Collaboration:

1. Hold a brief session with all project staff, preferably in person, to discuss communication styles and difference and expectations as soon as possible (July-?) to discuss directly questions and/or concerns regarding cultural/language differences. If possible, use an outside facilitator. The point of the discussion is not to place blame, but to open up dialog and to increase. understanding and expectations in crucial communication areas affecting the project (e.g. Q&A).
2. Conduct a brief survey of all collaborating partner staff to determine what additional training topics are of interest to staff, in particular to areas of interest in WASH and SMS technology and prioritize and provide accordingly as time and resources allow.
3. See 4 under Program Management recommendations.

Current Outstanding Project Activities:

1. The MSD meeting summary translation needs to be completed rapidly and shared with collaborating partners.
2. Conduct an assessment of what has been done to engage both HIPPAM's and other informal water providers in planning/outreach efforts to determine whether or not the level of outreach/planning is satisfactory and to what degree the IWSMS system is going to address this sectors needs in both Malang and Makassar communities. Strategize accordingly.

Development & Deployment of the IWSMS and Sustainability Activities

1. PATTIRO staff in leadership positions need to reengage in PMT meetings and broader planning processes to ensure that critical project activities are successfully implemented in Indonesia in the targeted communities and potentially beyond.
2. Outside of the Expert Meetings consider engaging in targeted discussions with the Makassar and Malang communities related to issues of sustainability of the system to illicit initial end user input.

Annexes

Annex 1 - References

Final USAID Cooperative Agreement, includes application narrative

IWSMS Baseline Report Malang

IWSMS Baseline Report Makassar

IWSMS Best Practices of SMS Communication Systems in Indonesia Report

IWSMS Comparative Study Tour Report

IWSMS Final Signed MOU

IWSMS Global SMS Survey Presentation PPT

IWSMS PMT Meeting Summaries , some specific ones reference in report

IWSMS Montlhy Progress Reports - April 2012, May 2012 (Others reviewed)

IWSMS MSD DRAFT PATTIRO Presentation on LS_FGD Results - English-2 PPT

IWSMS Performance Monitoring Plan (PMP)

IWSMS Pilot Location Assessment Review and Selection Meeting 11 Maret 2011

IWSMS Project Management Policy (latest version)

IWSMS Semi-annual PMP - Year 1

IWSMS Semi-annual PMP - Year 2

IWSMS Sub-agreement with Nexleaf Analytics

IWSMS Sub-agreement with PATTIRO

IWSMS Quarterly Report Dec 2010-March 2011

IWSMS Quarterly Report April-June 2011

IWSMS Quarterly Report July-September 2011

IWSMS Quarterly Report Oct-Dec 2011

IWSMS Quarterly Report January-March 2012

Lukas, Martin (2011) IWSMS Technical Partner Report, Nexleaf Analytics

May 2012 IWSMS Pilot Project System Development Progress Memo (quarter 2 2012 Key Activities To Date and Upcoming)

Nexleaf Analytics- WATER SMS Technical White Paper Presentation PPT

Pacific Institute- Indonesia WATER SMS White Paper Presentation

Pacific Institute and Nexleaf Analytics (April 2012) mWASH: Mobile Phone Applications for the Water, Sanitation, and Hygiene Sector report

PATTIRO White Paper and associated PPT

PATTIRO (2011) Indonesia WATER SMS Project: Report on Assessment for Selecting Location 2 Pilot Location Assessment Review and Selection Meeting 11 Maret 2011 (Summary notes from pilot location assessment. March 3, 2011 meeting)

Wolf, T. (2002). A practical approach to evaluating coalitions. In T. Backer(Ed) Evaluating Community Collaborations. Spring Publishing Retrieved June 8 from http://www.tomwolff.com/resources/backer.pdf

PATTIRO (2011) Indonesia WATER SMS Project: Report on Assessment for Selecting Location 2 Pilot Location Assessment Review and Selection Meeting 11 Maret 2011 (Summary notes from pilot location assessment March 3, 2011 meeting)

TERMS OF REFERENCE

Project Name	Indonesia WATER SMS Project
Project Location	Indonesia: Malang, East Java; Makassar, South Sulawesi
Project Budget	Primary Award Recipient Budget: USD $658,613 Total Budget: USD $1,300,000
Donor(s)/ funding sources	USAID/Indonesia Development Grants Program Cisco Global Impact Cast Grant Program Others TBD
Project Duration	Three (3) years – December 3 2010 – December 2 2013 Evaluation at 18 months (approx. June 2012) and 2.75 years. (Sept. 2013)
Implementing partners	Pacific Institute - Partner, Primary USAID and Cisco Award Recipient PATTIRO - Partner, USAID and Cisco Sub-recipient Nexleaf Analytics - Partner, USAID Sub-recipient
Project executants	

Sections:

1. *Project Background and Context*
2. *Specific Evaluation Objective and Questions*
3. *Scope, Approach, and Methodology*
4. *Governance and Accountability Arrangements*
5. *Guiding principles and Values*
6. *Deliverables and Schedule*
7. *Professional Qualifications of the Evaluator/Evaluation Team*
8. *Budget*
9. *Logistical Support*
10. *Proposal Inclusion*

1. Project Background and Context

The current purpose, objectives, and intended outcomes
The Indonesia WATER SMS Project is a three-year project funded by the U.S. Agency for International Development's (USAID) Development Grants Program (DGP). The Development Grants Program is a competitive small grants program, initiated in 2008, that provides opportunities for U.S. Private Voluntary Organizations (PVO) and local NGOs that have limited or no experience managing direct USAID grants. The DGP was designed to expand the number of direct partnerships USAID has with U.S. PVOs and indigenous, local NGOs and to build the capacity of these organizations to better meet the needs of their constituents.

The purpose of the Indonesia WATER SMS Project is to create a highly accessible communication and tracking mechanism that uses messages from mobile phones and email to develop crowd-sourced map data that can serve as a "data-driven dashboard" for PDAM and communities. The project also aims to demonstrate effectiveness of such a system to increase the exchange and monitoring of information among communities, water service providers, and government, in order to improve water and sanitation services for the urban poor in Indonesia.

In Annex 1 is the Planning Matrix, a table of the main project objectives, the primary activities that will be carried out to achieve the objectives, and the associated indicators and methods for data measurement and management.

The rationale for the evaluation and the key overarching evaluation objective and question
The midterm and final project evaluations are a requirement of the USAID Cooperative Agreement under which this project is primarily funded. The main objectives of the evaluations are to provide an independent activity review, performance evaluation, and completion report. Both evaluations will be used by USAID to inform program performance. The midterm evaluation will be used by the Project Team to adjust project implementation for the remaining project period. The final evaluation will be used to inform future project implementation by Pacific Institute.

Context
There is a water, sanitation and hygiene (WASH) crisis among the urban poor in developing country cities: insufficient or unreliable supplies of clean water, poor water quality, high cost, and inadequate infrastructure (including home water and sewerage connections). Communities face acute problems such as well failures or failure of a water truck to appear, any of which can cause short-term crises. In Indonesia, where urban growth rates are among the fastest in the world, municipally-distributed water (the formal water sector), with high quality and consistent service, tends to reach higher-income residents. The poor population, primarily migrants in peri-urban areas, is at best partially covered, with frequent interruption and poor quality water. Growing populations and climate change compound these challenges and increase risks.

While in 2008, 89% of Indonesians living in cities had access to improved water sources, only 37% had access to piped water. This is among the lowest coverage in Asia. Data from 2004 issued by PERPAMSI and YLKI indicate that only five of 265 PDAMs (*Perusahaan Daerah Air Minum*, Water Supply Company) serve more than 80% of their local population. Nearly 173 PDAMs serve less than 20% of the population. In urban areas, 33% (or 39 million people) lack adequate sanitation with 16% still practicing open defecation. While self-reporting reveals low coverage rates, such as Malang with only 47% of the total population having water connections, many researchers believe the rates are even more grim than typically reported, such as in Jakarta, where it is estimated that only 25% of households have water connections and fewer than 2% have sewerage connections.

Many Indonesians, primarily the peri-urban poor, rely almost entirely on the informal water sector (including self-supply through wells, rainwater collection, and informal water markets --tanker trucks, water vendors, and private boreholes) to supplement or completely fill their water needs. Many wells fail in the dry season and other sources are unreliable or just too expensive. Numerous studies have documented that private water supplies can cost 20 to 40 times municipal supplies. One study found that people living in the slums of Jakarta paid 5-10 times more per liter than higher income groups, even more than consumers in London or New York.

In Indonesia, poor sanitation causes 120 million disease episodes and 50,000 premature deaths annually. The significant economic losses from lack of sanitation and hygiene were estimated to be IDR 56 trillion (USD 6.3 billion), about 2.3% of gross domestic product (GDP).

Climate change further increases water insecurity. According to a March 2010 report, the greatest impacts on Indonesia will be decreased total annual rainfall, seasonal rainfall decreases at the height of the dry season, and increased annual pan evaporation. A 2007 study predicted more extreme climatic events (cyclones, drought). In coastal areas, the drawing down of groundwater combined with rising sea levels will allow seawater to intrude and contaminate water resources. Longer dry seasons and shorter, more intense wet seasons will bring greater risks of drought, flash flooding and storm surges, and will strain Indonesia's agriculture. Java, with over half of the country's population and the highest level of irrigated agriculture, already has serious water supply problems and will experience the greatest impacts from climate change.

In order for water managers to meet communities' WASH needs, they require more information on the water arrangements of those they serve. During times of water insecurity, some municipalities in developing country cities rely on the same groundwater used by the informal water sector. Each user's actions affect the ability of other users to access the water, but currently there is no communication among sectors. Longer-term impacts, such as climate change, are difficult enough to plan for even where the water utility has complete control of the water resource. In developing countries, where people access water sources directly, no sector has control over the resource.

The urban poor, often invisible to planning agencies, utilities, and government officials, need a way to get timely attention paid to their water and sanitation needs. People are much more likely to transmit a problem if they can report it with one or two clicks on their phone. Crowd-sourced data that combines the needs of the urban poor into a credible map or dashboard can put the urban poor "on the map" and help ensure agency accountability.

The Millennium Development Goals to reduce the proportion of people without water and sanitation and Indonesia's major decentralization programs have galvanized efforts to reach the underserved. Indonesia's National Water Policy (*Kebijakan Nasional Pembangunan Air Minum dan Penyehatan Lingkungan Berbasis Masyarakat*) includes general policy changes to focus on: demands of the poor and marginalized groups; active participation of women in decision-making; and fostering of transparency. But the rapid urbanization transforming cities and straining the water supplies and infrastructure throughout Java makes imperative the need for innovative solutions that can capitalize on the encouraging policy environment, harness numerous emerging technologies, and provide accessible and timely solutions for underserved populations, including women and the poor, shouldering the majority of the impacts.

The widespread and rapidly growing use of mobile phones, known as "hand phones" in Indonesia, offers an exciting new system for enabling information to flow in multiple directions to support better decision-making. Information can flow from communities to governmental entities and service providers, in support of rapid and informed decision-making. Governments can also use this system to alert residents to service changes, get more information on the informal water sector, and aggregate data on aquifer levels. SMS-based systems (i.e. systems utilizing mobile phone text message inputs) have been successfully implemented for a number of applications in Indonesia and other developing countries.

Indonesia ranks sixth in the world for number of mobile subscribers, with 140.6 million users in 2008 across eight mobile phone companies, i.e. over half the population, including men and women in every socio-economic level, and exceeding both the number of Internet users and private telephone landlines. Cheap hand phone credit vouchers, aimed at workers on weekly pay schedules and low income communities, have prompted a hand phone boom including providing small-scale entrepreneurial opportunities for street vendors and hawkers to cheaply improve business. Access to hand phones in the developing world has even outpaced access to basic services.

Open source software systems such as Ushahidi are increasingly being used for aggregation and viewing of SMS reports. Data collected from thousands of community participants can be aggregated, analyzed, and mapped to provide visual tools to help managers identify trends in time and place, and aid in problem assessment and planning.

The potential impact of the system we propose is clear and powerful. It will:

- Improve the ability of water providers to learn about and then respond quickly to acute, short-term problems their customers are facing
- Improve the ability of utilities and local governments to improve infrastructure and extend it to areas where there is need
- Improve regulation and accountability of informal water sector providers
- Make water providers more accountable to their customers
- Enable communities to reduce risks presented by disasters, climate change, and population growth by developing more resilient access to water sources
- Hence, enable marginalized groups, including the urban poor and women, to obtain improved water and sanitation services

For all these reasons, Indonesia is an excellent and appropriate place to test this approach to WASH improvements.

Roles and Responsibilities of Partners and Key Stakeholders
Pacific Institute will work in collaboration with our Indonesian local NGO partner PATTIRO and NGO technology partner Nexleaf Analytics to implement the Indonesia WATER SMS Project.

Pacific Institute (www.pacinst.org) originated the project concept and will lead the project under the leadership of Project Director Meena Palaniappan, providing oversight for project implementation, all financial accounting, and leading the research efforts. Ms. Palaniappan will be primarily in charge of obtaining input in the development of the Indonesia-focused WATER SMS System through coordination of the Engagement Sessions; participate in dissemination of the system throughout Indonesia; and develop sector coordination efforts that connect this system to other WASH tools and SMS tools under development or in use. Ms. Palaniappan, working 40% time, will make extended month-long stays in Indonesia the first two years of the project. Although the project will be collaboratively managed by all three partner organizations, Ms. Misha Hutchings, will serve as a Project Manager for this project for USAID administration purposes, working 80% time on this project. She will spend four months in each year of the project working in Indonesia on extended stays. Both Ms. Palaniappan and Ms. Hutchings will be members of the project management team. Other project staff members include a field representative who will be based in country to serve as a local Pacific Institute contact for the local NGO partner.

PATTIRO will lead the local effort, engaging the urban poor, government, and utilities in Learning Sessions, and will assist in design and implementation of the pilot. The Program Director, Mr. Ilham Cendekia, and Program Development Director, Ms. Dini Mentari, will be members of the Project Management Team and will work part-time (25% time each) throughout the project period to provide direction and oversight for the local efforts. The Program Manager, Ms. Fitria Muslih, and two program assistants will work fulltime on this project (100, 90, and 100% time), managing general local implementation and quality assurance.

Nexleaf Analytics will be the technical lead and will manage mobile phone-to-web platform development. A Senior Software Engineer, to be hired in month 7-8 of the project, will work 80 percent time on the architectural system implementation. The Principle Investigator, Dr. Nithya Ramanathan, will provide direction and oversight for the platform development. The Technical Project Lead, Dr. Martin Lukac, will work 40% time on this project, communicating with partners and participating in Learning

Sessions and the Multi-Stakeholder Dialogue to identify technical specifications for the system; managing project evaluation and reporting, and working closely with the senior engineer to monitor Indonesia WATER SMS implementation, and manage project financial accounting.

We will manage the project using a collaborative management structure called the **Project Management Team**, which will consist of two staff from Pacific Institute (Ms. Misha Hutchings, Ms. Meena Palaniappan); two from PATTIRO (Mr. Ilham Cendikia and Ms. Dini Mentari), and two from Nexleaf Analytics (Ms. Nithya Ramanathan and Mr. Martin Lukac). Throughout this project, we will conduct twice monthly meetings to monitor progress, identify and evaluate challenges and opportunities, make project changes, and note lessons learned. Every step of the project will be documented and evaluated. These meetings will be facilitated by Pacific Institute and focus on agreed-upon project deliverables, and review budget and expenditures.

In each of the pilot cities, we will conduct a series of Engagement Sessions, including at least six comprehensive learning sessions with residents; at least four with government agencies, elected officials, utilities, and the informal water sector including water providers, drillers, and developers; and focus groups with all water managers to better understand how they would utilize such a system. We will then bring together residents, PDAM, and water providers in a multi-stakeholder dialogue to identify key needs to improve services. We will work closely with mobile phone service providers to develop incentives for use. The reporting system's design will incorporate the capabilities, desires, and preferences of at least 100 residents of the pilot community and at least 20 managers in the public and private sector representing the formal and informal water sectors.

After the first round of on-the-ground Engagement Sessions, we will create a Project Advisory Committee of approximately 10 members to guide and monitor the project implementation, composed of participants from the learning sessions and government agency representatives.

2. Specific Evaluation Objectives and Questions

The independent evaluator or evaluation team will be asked to:

- Design the evaluation
- Review documents, analyze existing data, and conduct data collection such as conducting interviews and having meetings with the Project Management Team, Advisory Committee, and other relevant stakeholders.
- Continue engagement throughout project to assess outcomes
- Prepare written midterm and final evaluation reports

The evaluations are being commissioned in order to monitor and assess general performance in implementation of the project, as well as specific achievement of the project objectives. More specifically:

General Performance
Assess the major achievements of the project to-date in relation to its stated objectives and intended results.

- Focus on the higher level results.
- Assess what has been achieved, the likelihood of future achievements, and the significance/ strategic importance of the achievements
- Refer to quantitative assessments as far as possible ????
- Include also qualitative evidence e.g. opinions on the project's effectiveness based on impressions

and interviews with target groups, partners, etc.
- Describe any major failures of the project to date, explaining why they have occurred.
- Describe any unforeseen impacts (whether positive or negative).
- Identify any exceptional experiences that should be highlighted e.g. case-studies, stories, best practice

Assess management factors important for delivery of the project.
- Are plans being used, implemented and adapted as necessary?
- Are there capacity gaps?
- Describe working relationships within the team, with partners, stakeholders and donors.
- Internal and external communication.

Assess the key factors affecting **sustainability** of the project.
- What is the social and political environment/acceptance of the project?
- Will the project contribute to lasting benefits? Which organisations could/ will ensure continuity of project activities in the project area?
- Is there evidence of organisations/partners/communities that have copied, upscaled or replicated project activities beyond the immediate project area? Is such replication or magnification likely?

Assess and make recommendations on the key **strategic options** for the future of the project, i.e. exit strategy, replication, scale-up, continuation, major modifications to strategy
- Comment on any existing plans
- Make recommendations for scaling up and replicating the project

Specific Achievement of Objectives
Assess the documentation of information and tools needed by residents, PDAM, and the informal water sector in order to improve water services, be more resilient to water insecurity, and increase coverage and reliability.
- To what extent does the project respond to priority issues?
- Is the project team planning the most appropriate strategies?
- Have the needs and desires of all stakeholders for improved water services been documented?
- Was this documentation done well?
- How could this activity be improved in the future?
- Do stakeholders care about the project and believe it could assist them?

Monitor the development of the Indonesia WATER SMS System to ensure that it aggregates resident data into a real-time electronic map (or "dashboard") on the state of water and sanitation in a community based on the identified priorities from Objective 1.
- Does the system provide the minimum desired objectives outlined in the application?
- Were the needs and desires of stakeholders incorporated into the design?

Assess the deployment of the Indonesia WATER SMS System through a pilot project involving at least 100 individuals (at least 50% women, 60% below middle income level); and institutionalization of use of the generated WATER SMS data through the PDAM.
- Where the minimum desired stakeholders involved in the pilot project?
- At the PDAM, who utilized the data and when during the pilot project?
- How could this activity be improved in the future?

Additional indicators will be selected for specific achievement of USAID objectives during finalization of the performance monitoring plan under consultation with the hired evaluator.

3. Scope, Approach, and Methodology

Scope

- Time Period: *Mid-term Evaluation:* January 2011 to June 2012; *Final Evaluation:* January 2011 to December 2013
- Target Groups: Project staff, residents, PDAM staff, informal water sector, government officials
- Issues that are outside of the scope: qualitative indicators, such as increases in water access

Approach & Methodology

The Project Team has committed to a participatory logical framework approach to monitor and evaluate performance, however this can be revised based on definitions and frameworks deemed appropriate by the evaluator. A logical framework approach provides clear structure for planning. While this rigid structure may appear to limit adaptation, our commitment to a participatory approach will ensure that necessary adaptation takes place. Such an approach requires the ongoing involvement throughout the project of all stakeholders, including Project Team members, residents, and the local Project Advisory Committee, in reviewing and updating of the performance monitoring plan and evaluation methods.

The Project Team will review and record outputs, outcomes, and indicators at least once a month, assess progress, and make adjustments in tasks or roles as needed throughout the three-year project. Each task or sub-task will be assigned to a staff person of one of the three partner organizations. This person or organization's responsibility will include carrying out (or overseeing) the activity, collecting indicator data, documenting activities, preparing written outputs, compiling outcomes, and preparing monthly reports for the Project Team.

Oversight for that task or sub-task will be the responsibility of the Project Management Team, who will establish interim indicators. The Project Team will review this task's progress at least once a month, and adjust the task if indicators are not being met. Baseline data collection, project activities description, and ongoing compilation of outcomes information on the Indonesia WATER SMS Project progress, and monthly reporting will be the responsibility of the assigned project team members and consultants. Each task has a designated time period and the Project Team will give other project staff interim targets to be met for each task at designated intervals during the time period. The Project Team will review and record such indicators at least once a month and make adjustments in the project if indicators are not being met.

Participants in any learning session or other group meeting will be asked to complete a feedback form on their satisfaction with the meeting's agenda, process, and accomplishments. Those will be documented by PATTIRO and submitted to the Project Team.

We will also integrate process evaluation tools into communications among Project Team members, including regular conference calls or planning meetings, to document and improve the process of collaboration among project partners.

Further data collection methods to be used by the evaluator should include, but are not limited to, field observations and interviews.

The Planning Matrix describes the outcome and output indicators through which we will measure success throughout the project. This matrix provides a summary view of the extent to which an activity has been successfully accomplished in terms of criteria for content, quality, and diversity and quantity of input or participant. The Performance Monitoring Plan (Annex 3) includes detailed descriptions of indicators and

criteria, including both quantitative (e.g. number women participants, number of SMS messages sent per day) and qualitative indicators (e.g. perceptions on ease of use of the system). All indicators will be disaggregated by gender.

We expect that budget constraints will require that indicators rely on data collected during the project's planned activities (such as one-on-one discussions, group learning sessions, and data from the system) rather than data acquired separately from the planned activities (such as through surveys of the public or case studies). The Project Team has begun preliminary collection of existing demographics data for the pilot locations, and conducted its own baseline survey, however much of the existing data is inappropriate for the projects purposes and self-obtained data is limited to the scope of the project.

4. Governance and Accountability

As described above, the Project Management Team, comprised of six members, will review and approve the drafts of the performance monitoring plan and subsequent products of the evaluation. The final performance monitoring plan will be approved by the project's USAID Agreement Officer's Technical Representative (AOTR).

The Project Management Team and Project Advisory Committee will review and approve the draft mid-term and final evaluations before submission to USAID.

Any specific support or resources required by the evaluator should be included in the evaluator's proposal.

5. Guiding Principles and Values

Tenets that should guide the study include:

- transparency,
- cost-effectiveness,
- collaboration with beneficiaries,
- involvement of local agencies, etc.

- practices expected of the evaluator include:
  - confidentiality of data,
  - anonymity of responses,
  - making data publicly available in a usable format, etc.

6. Deliverables and Schedule

Deliverables	*Due Date*
One mid-term evaluation report (to USAID AOTR)	Due: July 2, 2012
One final project evaluation report (to USAID AOTR)	Due: January 2, 2013

The format requirements for each report, including length and content, will be negotiated and finalized during finalization of the performance monitoring plan. The reports should be written in English, and should meet USAID requirements for a mid-term and final evaluation.

The independent evaluator or evaluation team will meet with the Project Management Team in a meeting or consultation, the date(s) for which will be established mutually with the Project Management Team.

7. Professional Qualifications of the Evaluator/Evaluation Team

We are seeking an individual to conduct these monitoring and evaluation studies, however proposals for an evaluation team will be considered if the proposal remains within budget and indicates how the different expertise, skills, and experience among team members will be integrated and complement each other, and what the expected distribution of responsibilities is among the team leader and team members.

Required expertise, skills, and prior experience:

- Technical competence in the WASH, water supply, or environmental sectors
- Conducting evaluations of projects in the WASH, water supply, or environmental sectors
- Some competence and/or experience conducting evaluations of projects facilitating communication between citizens and government
- Bilingual English and Indonesian language proficiency
- Conducting evaluations in Indonesia

Desired expertise, skills, and prior experience:

- Evaluating project funded by an International NGO or multilateral organization
- Quantitative and qualitative evaluation methods/skills
- Process management experience
- Familiarity with Indonesia, and/or the local cultures in Malang and Makassar, Indonesia

8. Budget

We have budgeted the study for both mid-term and final evaluations as follows: Independent Evaluator fees at a maximum of 200 hours, as well as expenses for airline transportation to Indonesia if a US-based evaluator and/or local travel within Indonesia (including flights between cities), and hotel and per diem within Indonesia.

9. Logistical Support

Support to be provided to the hired evaluator or evaluation team by the Project Management Team:

- list of Key Informants with contact information
- introduction to informants
- scheduling of interviews (as needed)
- provision of documentation (see Annex 2 and 3)
- access to office facilities during the evaluation
- report format requirements

10. Proposal Inclusion

If you are interested in participating in this competitive process, please submit the following items by email to indojota@gmail.com, cc: mpal@pacinst.org and mhutchings@pacinst.org, by March 30th 2012:

1. Curriculum vitae, references, and one example of an evaluation report recently completed
2. A detailed methodological approach
3. A description of what you expect to achieve given the available resources and terms of reference.
4. A suggested timetable for the evaluation. If more than 200 hours are needed, please make the time allotments for tasks clear in the timetable. The timetable should allocate adequate time for:

   - ❒ Development of the evaluation design; finalization of the evaluation matrix; sampling strategy
   - ❒ Development of research instruments (questionnaires, interview guidelines, etc.)
   - ❒ Review of documentation
   - ❒ International travel; domestic travel
   - ❒ Field (or desk) research
   - ❒ Data analysis (usually half the number of days of the research)
   - ❒ Meeting with project staff and stakeholders on the initial findings and recommendations
   - ❒ Preparation of the draft report
   - ❒ Incorporation of comments and finalization of the evaluation report.

If you are not interested in participating in this competitive process, we would appreciate a brief description of your reasons (e.g. another evaluation scheduled at same time, doesn't meet my minimum fee and budget requirements which are___, and so forth).

Annex 1. Planning Matrix - Project Performance Monitoring and Evaluation Plan

OBJECTIVES	ACTIVITIES	INDICATORS	MEASUREMENT & DATA MGMNT Note: ***All final data management steps conducted by Project Manager unless otherwise noted.***
#1. Document the information and tools needed by residents, PDAM, and the informal water sector in order to improve water and sanitation services, be more resilient to water insecurity, and increase coverage and reliability.	Refine draft criteria to assess potential pilot locations, evaluate potential sites.	Agreement by Project Team members on criteria and evaluation matrices. Assessment report completed.	Final matrix format, assessment report entered into project records, submitted to USAID.
	Select pilot locations (urban), 3-6 communities	Agreement by Project Team.	Meeting notes wherein agreement is reached entered into project records. USAID notified.
	Identify individuals from all water sectors for Engagements Sessions, at least 120 residents and water managers.	Number of individuals agreeing to participate. Diversity covers range desired.	Participant survey data, survey list, participant list entered into project records and USAID progress report. Participant survey data report submitted to USAID.
	Design Engagement Sessions that will identify key information and tools needed, by sector.	Structure, agendas, dates, and locations.	Final materials entered into project records and USAID progress report.
	Conduct Learning Sessions, Focus Group Discussions, and Multi-Stakeholder Dialogue.	Participant lists. Session notes. Steering Committee formed. Feedback forms.	Participant lists, session notes, feedback forms for each of the sessions entered into project records and USAID progress report.
	Follow-up to Learning Sessions and Focus Group Discussions, as needed.	Report on information and tools needed, by location, by stakeholder.	Engagement session reports entered into project records and submitted to USAID.
	Sustainability & Scaling Up Plan: Expert Meeting, Sub-grant research.	Reports of findings and guidance from two expert meetings. Sub-grant Research Reports and Program frameworks.	Expert meeting reports entered into project records and submitted to USAID. Sub-grant reports entered into project records and submitted to USAID. Not yet

#2: Build a WATER SMS system that aggregates resident data into a real-time electronic map (or "dashboard") on the state of water and sanitation in a community based on the identified priorities from Objective 1.	Identify existing and planned web, mapping, and technical programs in the pilot communities that can be leveraged.	Summary report of local technical programs.TOR/SOW developed for potential technical partner. Signed MOU with local tech. partner. Technical Team formed.	Summary report entered into project records and submitted to USAID. TOR/SOW, MOU entered into project records and USAID progress report. USAID notified about technical team.
	Evaluate current SMS efforts in Indonesia, Asia, and beyond	Global SMS efforts white paper.	White paper entered into project reports and submitted to USAID.
	Begin development of Indonesia WATER SMS System 1.0 (alpha version)	Alpha System meets initial criteria and provides desired new features.	Alpha version software specifications entered into project records and USAID progress report. USAID notified of release.
	Refine Location 1 System based on Engagement Session feedback.	Beta System meets initial criteria and provides desired new features	Beta version software specifications entered into project records and USAID progress report. USAID notified of release.
#3. Deploy the WATER SMS system through a pilot project involving at least 100 individuals (at least 50% women, 60% below middle income level); and institutionalize use of the generated WATER SMS data through the PDAM.	Recruit and train participants and set-up computer access points for pilot project in 3-6 communities in each location.	100 trained participants (at least 50% women, 60% low income) minimum in each location. Five computer access points in each pilot location.	Training materials entered into project records and USAID progress report. Participant lists entered into project records. List of established access points entered into project records and USAID progress report.
	Implement two-month pilot project in each location with Open Beta Version of System.	Summary Analysis Report on quality of website, inputs, views, resolution of problems, service quality, using automatic weekly reports. Database of inputs including text & unstructured messages. At least 1,000 submissions received.	Summary analysis report entered into project records and submitted to USAID.
	Work with PDAM on their response to the data, during and shortly after trial period. Document changes in processes, response rate, budget, planning.	Summary reports of PDAM internal decisions or changes made during or shortly after trial period, including at least 75% relevant departments using SMS data in their operations.	Documentation of changes considered and adopted, data used, impacts of data entered into project records and USAID progress report.
	Refine system and support system.	Revised system in release-ready form.	Software specifications entered into project records and USAID progress report. USAID notified of release.

#4: Evaluate and document results of the pilot project, identify lessons learned, refine WATER SMS system, and disseminate widely.	Document project, including implementation process and performance indicators. Release system as open source software.	Final Report. Software released as open source.	Final Project report entered into project records and submitted to USAID. Open-source software release documents (e.g. press releases) entered into project records and USAID final report.
		Mid-term Independent Evaluation report. Final Evaluation Report.	Midterm, Final Evaluation Reports entered into project records and submitted to USAID directly by Independent Evaluator.
	Disseminate project results	Schedule of presentations.	Presentation Schedule entered into project records and USAID progress and/or final report.

Annex 2. Documents to be Consulted

Documents to be read at the outset of the evaluation and before finalizing the evaluation design.

- Project proposal
- Cooperative Agreement with USAID
- (Latest) Annual work plans
- Internal and External Progress reports
- Key outputs produced to-date: research/ surveys conducted, Regulations and policies developed
- Partnership arrangements e.g. agreements of cooperation with each other, local governments, etc.
- Performance Monitoring Plan with list of USAID indicators

Documents to be read throughout the evaluation.

- Progress reports
- Meeting Notes

Indonesia WATER SMS Collaborating Partner Survey

Greetings WATER SMS Staff,

This survey has been developed as part of the mid-term evaluation to gather information from staff working on the Indonesian WATER SMS Project. The information gathered from the survey will be used to assess the overall collaboration partnership between Nexleaf, PATTIRO and the Pacific Institute; the projects work to-date and progress on the remaining projects activities. Your thoughtful and honest feedback is greatly appreciated. Survey data results will be presented in the mid-term evaluation report in aggregate form. No names will be tied to specific survey responses and only the evaluator will see individual's responses, So anonymity will be retained.

You are requested to please complete the survey by MONDAY JUNE 18 at the Close of Business (COB).

Thank you for taking the time to complete the survey!

Kay Mattson
External Evaluator

Survei ini dikemgankan sebaagai salah satu bagian dari evaluasi mid-term USAID untuk mengumpulkan informasi dari anggota staf proyek Indonesia WATER SMS. Informasi tersebut akan digunakan untuk menilai: kemitraan kerjasama antara Nexleaf Analytics, Pacific Institute dan PATTIRO; pekerjaan proyek yang dilakukan sampai saat ini dan kemajuan dalam kegitan proyek yang tersisa. Tanggapan Anda bijaksana dan jujur sangat dihargai. Hasil dari survei ini akan disajikan dalam laporan evaluasi jangka menengah dalam bentuk agregat. Tidak ada nama akan dikaitkan dengan respon survei spesifik dan hanya evaluator akan melihat respon individu. Jadi anonimitas akan dipertahankan.

You are requested to please complete the survey by MONDAY JUNE 18 at the Close of Business (COB).
Anda diminta untuk menyelesaikan survei dengan hari Senin 18 Juni pada sore.

Thank you for taking the time to complete the survey! Terima kasih atas meluangkan waktu untuk menyelesaikan survei!

Kay Mattson
External Evaluator

DEMOGRAPHICS/RESPONDENT INFORMATION

What organization do you work for? Anda bekerja untuk organisasi apa?

◯ Nexleaf ◯ Pacific Institute ◯ PATTIRO

What is your name? Siapa nama Anda (Names are requested in case the evaluator needs to follow-up with respondents. Your responses will be kept anonymous in the final results./Nama-nama dibutuh dalam kasus evaluator harus bertanya lagi responden. Tanggapan Anda akan disimpan anonim dalam hasil akhir.)

What is your position on the project? Apa posisi Anda pada proyek?

Indonesia WATER SMS Collaborating Partner Survey

How long have you worked on the Indonesia WATER SMS project? (Enter the number of total number of months and years you have worked on the project. Example: you have worked on the project for 1 year and 5 months. Write a 5 in the months row and a 1 in the year row.)

Berapa lama Anda bekerja pada proyek AIR Indonesia SMS? (Masukkan jumlah bulan dan tahun Anda telah bekerja pada proyek. Contoh:. Anda telah bekerja pada proyek selama 1 tahun dan 5 bulan Menulis di baris 5 bulan dan 1 di baris tahun.)

# of Months

# of Years

What do you hope to learn from this mid-term project evaluation? Apa yang Anda harapkan untuk belajar dari evaluasi mid-term?

COLLABORATION/Kerja Sama

1. Please briefly describe what you think are the overall strengths of the collaborative partnership among the three agencies and what you think has worked well over the last 18 months to get you where you are at with the project at this time? / Silahkan uraikan apa yang Anda pikirkan adalah kekuatan keseluruhan dari kemitraan kolaboratif antara tiga organisasi dan apa yang Anda pikirkan telah bekerja dengan baik selama 18 bulan terakhir sampai saat ini?

2. On a scale of 1 to 5 (1 low to 5 high) how would you rate the overall collaboration between the Indonesia WATER SMS Partners in the following areas:

Pada skala 1 sampai 5 (1 rendah sampai 5 tinggi) bagaimana anda menilai kerjasama keseluruhan antara Mitra Indonesia WATER SMS dalam bidang berikut:

2a. Communication between partners/Komunikasi antara mitra

Low/Rendah | | | | | High/Tinggi

Comments/Komentar:

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2b. Level of trust and respect among partners// Tingkat kepercayaan dan rasa hormat di antara para mitra

Low/Rendah — High/Tinggi

○ ○ ○ ○ ○

Comments/Komentar:

2c. Level of appropriate sharing of project knowledge and information between partners/partners / Tingkat berbagi pengetahuan proyek dan informasi antara mitra

Low/Rendah — High/Tinggi

○ ○ ○ ○ ○

Comments/Komentar:

2d. Feel that you are personally valued on the project/Merasa bahwa Anda dihargai sendiri pada proyek

Low/Rendah — High/Tinggi

○ ○ ○ ○ ○

Comments/Komentar:

2e. Feel that you are contributing to the projects overall goal //Merasa bahwa Anda berkontribusi pada tujuan proyek

Low/Rendah — High/Tinggi

○ ○ ○ ○ ○

Comments/Komentar:

3. Please briefly describe what you think are the project's challenges, and areas needing improvement, if any, for the collaborative partnership as you move into the second half of the project?

Tolong jelaskan secara singkat apa yang Anda pikirkan adalah tantangan proyek, dan daerah yang memerlukan perbaikan untuk kemitraan kolaboratif, jika ada, untuk masa depan?

3a. If you identified a challenge(s) what do you think might help overcome the challenge (s)?

Jika Anda mengidentifikasi tantangan di atas, menurut Anda apa yang dapat membantu mengatasi tantangan tersebut?

QUALITY OF WORK ON PROJECT ACTIVITIES/KUALITAS KERJA PADA KEGIATAN PROYEK

4. On a scale of 1 to 5 (1 low quality to 5 high quality) how would you rate the overall quality of the work to-date on the project activities:

/ Pada skala 1 sampai 5 (1 kualitas rendah sampai 5 kualitas tinggi) bagaimana anda menilai kualitas pekerjaan sampai saat ini pada kegiatan proyek:

Project Objective #1: Document the information and tools needed by residents, PDAM, and the informal water sector in order to improve water and sanitation services, be more resilient to water insecurity, and increase coverage and reliability.

Mendokumentasikan informasi dan peralatan yang diperlukan oleh warga, PDAM, dan sektor air informal untuk meningkatkan pelayanan air dan sanitasi, lebih tahan terhadap ketidakamanan air, dan meningkatkan cakupan dan kehandalan.

4a. Community Selection Assessment Process / Proses Seleksi Komunitas

Low Quality ○ ○ ○ ○ ○ High Quality

4b. Learning Sessions with Communities

Low Quality ○ ○ ○ ○ ○ High Quality

4c. Focus Group Discussions Water Managers and Stakeholders

Low Quality ○ ○ ○ ○ ○ High Quality

4d. Multi-Stakeholder Dialogue

Low Quality ○ ○ ○ ○ ○ High Quality

4e. Progress on Sustainability and Scaling Up Activities

Low Quality ○ ○ ○ ○ ○ High Quality

Any comments on 4a through 4e above? Komentar tentang jawaban 4a -4e di atas:

PROGRESS ON PROJECT OBJECTIVES/KEMAJUAN PADA TUJUAN PROYEK

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5) On a scale of 1 to 5 (1 limited progress to 5 significant progress) how would you rate the overall progress of the work to-date on the Objective 2 projects:/ Pada skala 1 sampai 5 (1 kemajuan terbatas sampai 5 kemajuan yang signifikan) bagaimana anda menilai kemajuan pekerjaan sampai saat ini pada proyek Tujuan 2:

Project Objective #2: Build a WATER SMS system that aggregates resident data into a real-time electronic map (or “dashboard”) on the state of water and sanitation in a community based on the identified priorities from Objective 1./Membangun sistem AIR SMS yang agregat penduduk data ke dalam peta real-time elektronik (atau "dashboard") pada keadaan air dan sanitasi dalam masyarakat berdasarkan prioritas diidentifikasi dari Tujuan 1.

5a Progress towards identifying web, mapping and technical programs in pilot communities? Kemajuan menuju mengidentifikasi program web, pemetaan dan teknis dalam komunitas percontohan?

Limited Progress/kemajuan terbatas sampai				Significant Progress/kemajuan yang signifikan
◯	◯	◯	◯	◯

5b Usefulness of the Global SMS White Paper to inform projects work? Kegunaan Global SMS Study untuk menginformasikan pekerjaan proyek? (1-kegunaan terbatas sampai 5 kegunaan signifikan)

Limited Usefulness/kegunaan terbatas sampai				Significant Usefulness/kegunaan signifikan
◯	◯	◯	◯	◯

5c Progress towards development of SMS tool? /Kemajuan menuju pengembangan system WATER SMS?

Limited Progress/kemajuan terbatas sampai				Significant Progress/kemajuan yang signifikan
◯	◯	◯	◯	◯

Any Comments on the above 5a through 5c?/Komentar tentang jawaban 5a-5c di atas?

TARGET LOCATIONS/LOKASI TARGET

7. What do you think are the overall strengths of the project in the Malang, East Java area?/Menurut Anda, apa saja kekuatan dari proyek di daerah Malang, Jawa Timur?

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8. What are the current challenges/areas for improvement for the project in the Malang, East Java area?// Apa tantangan untuk perbaikan proyek di daerah Malang, Jawa Timur?

9. What do you think are the overall strengths of the project in the Makassar, South Sulawesi area?/ Menurut Anda, apa saja kekuatan dari proyek di daerah Makassar, Sulawesi Selatan?

10. What are the current challenges/areas for improvement for the project in the Makassar, South Sulawesi area?// Apa tantangan untuk perbaikan proyek di daerah Makassar, Sulawesi Selatan?

Thank you! The survey is complete. /Terima kasih! Survei ini selesai.

Indonesia WATER SMS Community Stakeholder Survey

Salam mitra Indonesia WATER SMS/Greetings Indonesia WATER SMS Partners,

Survei ini telah dikembangkan sebagai bagian dari evaluasi jangka menengah untuk mengevaluasi kemajuan proyek AIR SMS. Karena saya tidak berada di Indonesia secara langsung, survei ini digunakan untuk mengumpulkan informasi dari stakeholder masyarakat bekerja pada Proyek Indonesia WATER SMS melalui internet. Informasi yang dikumpulkan dari survei ini akan digunakan untuk menilai proyek bekerja sampai saat ini dan kemajuan dalam kegiatan proyek yang tersisa. Kami meminta Anda memberikan masukan dan perspektif pribadi Anda pada Proyek WATER SMS dalam tanggapan Anda di bawah ini. Tanggapan Anda bijaksana dan jujur sangat dihargai. Hasil dari survei ini akan disajikan dalam laporan evaluasi jangka menengah dalam bentuk agregat. Tidak ada nama akan dikaitkan dengan respon survei spesifik dan hanya evaluator akan melihat respon individu. Jadi anonimitas akan dipertahankan. Nama Anda sedang diminta dalam kasus evaluator ingin tindak lanjut dengan Anda.

This survey has been developed as part of a mid-term evaluation to evaluate the progress of the WATER SMS project. As I am unable to be in Indonesia in person, this survey is being used to gather information from community stakeholders working on the Indonesian WATER SMS Project via the internet. The information gathered from the survey will be used to assess the projects work to-date and progress on the remaining projects activities. We ask that you provide your individual input and perspective on the WATER SMS Project in your responses below. Your thoughtful and honest feedback is greatly appreciated. Survey data results will be presented in the evaluation report in aggregate form. No names will be tied to specific survey responses and only the evaluator will see individual's responses, so anonymity will be retained. Your name is being requested in case the evaluator wants to follow-up with you.

Anda diminta untuk menyelesaikan survei dengan hari Rabu pada 20 Juni./You are requested to please complete the survey by WEDNESDAY June 20.

Terima kasih telah meluangkan waktu untuk menyelesaikan survei! / Thank you for taking the time to complete the survey!

Kay Mattson
External Evaluator

INFORMASI TENTANG RESPONDEN

Siapa nama Anda? (Optional. Nama diminta dalam kasus evaluator perlu tindak lanjut dengan responden. Tanggapan Anda akan disimpan anonim dalam hasil terakhir. / Names are requested in case the evaluator needs to follow-up with respondents. Your responses will be kept anonymous in the final results.)

1. Apa kelompok yang Anda wakili pada Proyek WATER SMS? / What is your position in the WATER SMS Project?

- [ ] Community member / residen dari komunitas umum
- [ ] PDAM staff person / anggota staf PDAM
- [ ] Informal Water Sector Representative (e.g. HIPPAM, Private Water Vendor / Penjual Air)
- [ ] SKPD
- [ ] LSM/CSO

Yang lain (Jelaskan)/Other (please describe)

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2. Apa itu Gender Anda?/What is your Gender?

◯ __ Laki-laki/Male

◯ __ Perempuan/Female

3. Apa komunitas Anda mewakili dalam Proyek WATER SMS?/What community are you from/do you represent in the WATER SMS Project?

◯ Malang

◯ Makassar

Project Questions

4.Bagaimana Anda terlibat dalam Proyek WATER SMS? / How have you been involved in the WATER SMS Project?

5. Apakah Anda merasa bahwa perspektif Anda sedang dipertimbangkan dalam pengembangan proyek WATER SMS? Jelaskan / Do you feel that your perspective is being considered in the development of the WATER SMS project?

◯ Yes/Ya

◯ No/Tidak

Comments/Komentar:

6. Menurut Anda bagaimana berguna sistem WATER SMS adalah untuk mengatasi kebutuhan-kebutuhan masyarakat? / How useful do you think the WATER SMS system will be to addressing the Community's needs?

7. Menurut Anda bagaimana berguna sistem WATER SMS adalah untuk mengatasi kebutuhan penyedia air, seperti PDAM, penjual air, HIPPAM, dll? / How useful do you think the WATER SMS system will be to addressing the Water Provider needs?

8. Ada hal lain yang ingin berbagi dengan evaluator mengenai status dan masa depan atau project WATER SMS? / Anything else you would like share with the evaluator about the status and future or the WATER SMS project?

Terima kasih untuk waktu Anda. Survei ini selesai.