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WATER, SANITATION, AND HYGIENE PARTNERSHIPS AND LEARNING FOR SUSTAINABILITY (WASHPaLS)

Annual Report – Year 2
October 1, 2017 to September 30, 2018



TETRA TECH

November 2018

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DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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ACRONYMS AND ABBREVIATIONS

CFN	Clean, Fed & Nurtured
CKM	Communications and Knowledge Management
CLTS	Community-Led Total Sanitation
CRSHIP	Cambodia Rural Sanitation and Hygiene Improvement Program
DEC	Development Experience Clearinghouse
DPD	Deputy Project Director
EOI	Expression of Interest
EMW	East Meets West
ES	Engagement Strategy
FSM	Fecal Sludge Management
GESI	Gender Equality and Social Inclusion
GHP	Global Handwashing Partnership
GIP	Gender Integration Plan
GtN	Growth through Nutrition
HBC	Hygiene Behavior Change
ICDDR,B	International Center for Diarrhoeal Disease Research, Bangladesh
ICT	Information and Communications Technology
iDE	International Development Enterprises
IDS	Institute of Development Studies
IE	Impact Evaluation
IYC/IYCF	Infants and Young Children/ Infant and Young Child Feeding
KIWASH	Kenya Integrated Water Sanitation and Hygiene
M2W	Mobile-to-Web
M&E	Monitoring and Evaluation
MBS	Market-Based Sanitation
MHM	Menstrual Hygiene Management
MSI	Management Systems International
MOU	Memorandum of Understanding
MoW	Ministry of Water

MWDSEP	Ministry of Water Development, Sanitation and Environmental Protection
OD/ODF	Open Defecation/Open Defecation Free
P&L	Profit and Loss
PD	Project Director
PE	Performance Envelope
PSI	Population Services International
Q	Quarter
RAPID	Resilient Arid Lands Partnership for Integrated Development
RCT	Randomized Control Trials
REC	Review and Evaluation Committee
REOI	Request for Expressions of Interest
RFA	Request for Approval
SBCS	Senior Behavior Change Specialist
SHINE	Sanitation Hygiene Infant Nutrition Efficacy
SPS	Safe Play Spaces
STTA	Short-Term Technical Assistance
SWA	Sanitation and Water for All
SWWW	Stockholm World Water Week
SuSanA	Sustainable Sanitation Alliance
TOCO	Task Order Contracting Officer
TOCOR	Task Order Contracting Officer's Representative
UCD	User-Centered Design
UNC	University of North Carolina
UNICEF	United Nations International Children's Emergency Funds
USAID	United States Agency for International Development
USG	United States Government
WASH	Water Supply, Sanitation and Hygiene
WASHNET	Water Supply, Sanitation and Hygiene Network
WASHPaLS	Water, Sanitation and Hygiene Partnerships and Learning for Sustainability
WIRB	Western Institutional Review Board
WSP	Water and Sanitation Program
WSSCC	Water Supply and Sanitation Collaborative Council

PREFACE

USAID's Water, Sanitation, and Hygiene Partnerships and Learning for Sustainability (WASHPaLS) project is a 5-year task order awarded to Tetra Tech on 16 September 2016 under USAID's Water and Development Indefinite Delivery Indefinite Quantity Contract (WADI). Tetra Tech implements the project in collaboration with several non-governmental organizations and small-business partners—Aquaya Institute, FHI 360, FSG, and Iris Group—that contribute expertise in state-of-the-art WASH programming and research. Distinguished academics, practitioners, and policy makers from across the WASH sector regularly provide expert perspectives to the project through an internal research working group and an external Advisory Board.

The project supports USAID's goal of reducing morbidity and mortality in children under five by ensuring USAID programming employs high-impact, evidence-based environmental health and WASH interventions. WASHPaLS identifies and shares best practices for achieving sustainability, scale, and impact by generating evidence to support the reduction of open defecation and movement of communities up the sanitation ladder while also focusing on novel approaches for reducing feces exposure to infants and young children (IYC). Specifically, WASHPaLS:

1. offers USAID Missions and technical bureaus ready access to thought leaders and analytical expertise across a wide range of WASH themes in response to their needs (Component 1);
2. generates evidence through implementation research to increase the sector's understanding of and approaches to sustainable WASH services, the effectiveness of behavioral and market-oriented approaches to sanitation, and measures to disrupt pathways of fecal exposure to infants and young children (Component 2), specifically, focusing on:
 - examination and analysis of Community-Led Total Sanitation (CLTS), including a dedicated Information and Communication Technology (ICT) activity (Task 2.1);
 - exploration of market-based sanitation (MBS) (Task 2.2); and
 - testing of approaches to improve hygienic environments for IYC (Task 2.3), also referred to as Safe Play Spaces (SPS).
3. administers a small grants program on innovations in hygiene behavior change (Component 3); and,
4. engages and partners with national and global stakeholders to promote the use and application of project-generated evidence and global best practices by practitioners and policy makers, tapping into broad coalitions and dynamic partnerships (Component 4).

The WASHPaLS Year 2 Annual Report covers the period from October 1, 2017 to September 30, 2018. It presents the project's major achievements, notable challenges and adherence to the schedule of activities outlined in the Year 2 Annual Work Plan.

Pursuant to Section F.5 of the WASHPaLS Task Order and with the consent of the WASHPaLS Task Order Contracting Officer's Representative (TOCOR), this report includes material that would otherwise be part of a separate fourth quarterly report and Year 2 Annual Partnerships Report.

I.0 OVERVIEW OF YEAR 2

The technical focus of WASHPaLS activities in Year 2 turned from completion and dissemination of desk and literature reviews to the design and implementation of the field research agenda. Over the course of the year, WASHPaLS strengthened relationships with international and national sector stakeholders, as our findings, recommendations, and activity planning started to be recognized and appreciated. In Year 2, WASHPaLS also began implementation of several Component 1 buy-in activities that directly respond to Mission and Operating Unit needs and issued three small grants to begin our investigation of innovations in hygiene behavior change programming. Across the portfolio, WASHPaLS has activities in eleven countries working in collaboration with local and national governments, NGOs, civil society organizations and other donors.

Below is a summary of significant achievements in the second year of the WASHPaLS project, covering the period from October 1, 2017 to September 30, 2018. Details are provided in the following sections of the report.

Component 1 – Technical Assistance to USAID

In Year 2, WASHPaLS received \$1.76 million in funding for three additional work orders, bringing the total amount obligated to date for four work orders to \$2.85 million.

- Two requests were received from the USAID/Kenya East Africa (KEA) Mission; both evaluations are underway:
 - Conduct an impact evaluation (IE) on the effectiveness of remote sensors on borehole management as part of the Kenya Resilient Arid Lands Partnership for Integrated Development (RAPID), and
 - Conduct a mid-term performance evaluation of the Kenya Integrated Water Sanitation and Hygiene (KIWASH) project.
- Received approval for and initiated implementation of the Cambodia/NOURISH project impact evaluation, funds for which were obligated in Year 1.
- Received funding for an activity to research aspects of menstrual hygiene management (MHM), the scope for which is under development.

Component 2 – Implementation Research

In Year 2, WASHPaLS concluded the desk reviews for the three streams of research of Component 2: CLTS, MBS and SPS. The documents were broadly disseminated through a variety of platforms and the highlights and major findings of each were shared through several well attended webinars hosted by the USAID/CKM project. The general feedback from sector actors was that these are high-quality reviews that will contribute to the on-going dialogues on improving sanitation and hygiene programming and delivery. Building on the evidence gaps identified in the reviews and in consultation with sector stakeholders and the WASHPaLS Advisory Board, the research teams honed research questions, research design, the identification of implementation partners and projects on which to layer the research, and, in some areas, commenced field activities.

Community-Led Total Sanitation (CLTS)

- Finalized the CLTS desk review, *An Examination of CLTS's Contributions toward Universal Coverage*, and disseminated findings through a public webinar hosted by USAID. Initial findings were shared at

UNC Water and Health Conference 2017 and were discussed briefly in other events such as the CLTS Knowledge Hub Knowledge Sharing meetings in Tanzania and Senegal. The document was cited as a key reference in the forthcoming WaterAid/Plan/UNICEF programming guidance for rural sanitation and hygiene. Prepared a draft of a journal manuscript based on the findings of the desk review.

- Defined questions for the CLTS implementation research based on findings of the desk review, as well as sub-questions and study designs for each. The two foci of research are on 1) better understanding the multiple factors that influence the success of CLTS interventions, i.e., the CLTS performance envelope and 2) the effectiveness of utilizing targeted subsidies to reach the poorest.
- Performance envelope (PE)
 - Finalized inception report for CLTS Performance Envelope research, detailing research design and methodology. The mixed-methods design includes both qualitative and quantitative research. For the quantitative research, WASHPaLS received approval from national organizations and/or implementing partners to utilize CLTS datasets from four countries and initiated data analysis. For the qualitative research, WASHPaLS secured partner agreement and ethical approvals for fieldwork in Cambodia and completed a scoping trip. Additional qualitative work will occur in Zambia and possibly Ghana.
- Subsidy study
 - Identified Ghana as the study country after two scoping trips and secured UNICEF Ghana as the partner. Initiated formative research to inform study design and pilot survey tools.
- Information and Communications Technology (ICT) study
 - Finalized the desk review, *Information and Communication Technology for Community-Led Total Sanitation: A Landscape Assessment*, and disseminated findings online.
 - Conducted scoping trip in Zambia and finalized inception report. Initiated research activities, including subcontract with local partner, Akros, to facilitate lessons learned.

Market-Based Sanitation (MBS)

- Published the MBS desk review, *Scaling Market-Based Sanitation*, and disseminated the findings through participation and presentation at eight events, including at the University of North Carolina (UNC) Water & Health Conference 2017; two internal UNICEF meetings in Copenhagen and New York City; Sanitation Working Group meetings in Nigeria and Uganda, and three public webinars hosted by USAID/CKM. Began drafting manuscript for peer reviewed publication that expands on the top-level findings from the systematic MBS interventions selection process.
- Completed the analysis for MBS research on sanitation enterprise viability and constructed detailed profit & loss statements for 64 enterprises across three interventions in Cambodia, India, and Nigeria. Entered into formal partnerships with three implementer organizations (Population Services International (PSI) in India, WaterAid in Nigeria, and WaterSHED in Cambodia).
- Produced draft decision-support tools for three policies, each applied to two national markets, along with detailed guides to understand and adapt the models for other contexts; received positive feedback on the comprehensiveness and utility of the models along with suggestions from two external implementers.

Hygienic Environments for Infants and Young Children

- Produced a final version of the literature review, *Toward a Hygienic Environment for Infants and Young Children*, and disseminated through a webinar and at professional conferences and meetings, including UNC Water & Health Conference, CORE, and others.
- Engaged Transform WASH (PSI/Ethiopia) to design and lead a participatory user-centered design workshop that yielded locally produced playpen models appropriate for behavioral testing through Trials of Improved Practices (TIPS).

Component 3 – Small Grants Program

In Year 2, WASHPaLS awarded three grants from the first Request for Expression of Interest (REOI) for innovations in hygiene behavior changes and issued a second REOI for testing WASH behavior change innovations to reduce IYC exposure to poultry excreta, from which one grant will be awarded. With these, WASHPaLS will have issued four of the 10 grants required, utilizing approximately \$790,000 of the \$1.5 million available for grants under contract.

- The three grantees from Round 1 are:
 - Splash: WASH-in-Schools Hygiene Nudges in Ethiopia (\$99,965)
 - iDE: Expanding Women's Role in Nepal's Sanitation Value Chain (\$99,000)
 - ICDDR,B: mHealth Messaging: An Innovative Approach to Promote Improved Caregiver and Child Hygiene Practices in Bangladesh (\$296,439)

Component 4 – Partnerships

In Year 2, WASHPaLS increased opportunities for actively engaging with key sector stakeholders to ensure that our proposed research questions are relevant, timely and of value to the sector and also to bolster the channels and platforms necessary to maximize the potential for our findings and recommendations to be taken up in sector learning and planning.

- WASHPaLS was invited by UNICEF to share our work and contribute to the dialogue at two international consultations: the Global Consultation on Influencing Sanitation Markets in Copenhagen (May) and a meeting of UNICEF Country WASH officers (WASHNET) in New York City (June). Building on these consultations, WASHPaLS was asked to review two forthcoming UNICEF documents: *Shaping Sanitation Market Strategy* and *Practical Guidance on Programming for Rural Sanitation and Hygiene* (prepared in partnership with WaterAid and Plan International)
- WASHPaLS was invited to participate and present at two Learning and Sharing workshops organized by the CLTS Knowledge Hub in Tanzania (April) and Senegal (June). WASHPaLS presented findings of the CLTS desk review and interacted with key sector stakeholders regarding our research design.
- In response to a request from the Sanitation and Water for All (SWA) global partnership, WASHPaLS fielded a two-person consultant team to review and provide recommendations for improving SWA governance structure and functionality; this work was completed early in Year 2. SWA approved these recommendations and requested that WASHPaLS prepare a revised SWA *Governing Document* to institutionalize the recommendations.
- WASHPaLS continued to provide technical support on hygiene behavior change through coordinating bodies such as, the Global Handwashing Partnership, BabyWASH Coalition, and the Clean, Fed & Nurtured Coalition.

- WASHPaLS co-funded, with the World Bank and DFAT, the completion of ending research implemented by Thrive/East Meets West in Lao on the effectiveness of subsidies to increase sanitation access. This work will help inform design of the WASHPaLS subsidy research in Ghana.

Additional details on Year 2 activities are provided in the next section. Then in Section 3 we discuss how gender equality and social inclusion (GESI) consideration were incorporated in project activities. In Section 4 we report on progress on the performance indicators included in the approved Monitoring & Evaluation Plan. Project management issues are discussed in Section 5 and budget in Section 6. Several appendices provide additional supporting information.

2.0 YEAR 2 ACHIEVEMENT BY COMPONENT

This section presents Year 2 progress and achievements by project component; the section begins with an update on the WASHPaLS Advisory Board (Board) and the project's important Engagement Strategy.

Advisory Board

The seven-member WASHPaLS Advisory Board continues to be an important element of the project, providing technical feedback on proposed project activities and findings, and serving as a vital conduit to key national and international sector stakeholders.

- Two new members joined the Board early in Year 2: Antoinette Kome, from SNV, replaced Darren Saywell, and Craig Kullmann, from the World Bank, replaced Martin Gambrell (Craig Kullmann has since been replaced by Susanna Smets).
- Two Board meetings were held in Year 2 (instead of the planned four):
 - In October 2017 as a side session during the University of North Carolina (UNC) Water and Health Conference; all Board members participated, and discussions centered on the findings from the Task 2.2 (MBS) desk review, on the emerging research questions and initial identification of potential implementation partners for the field research phase.
 - In March 2018, while project staff were in Arlington, Virginia for the Mid-Year Team Planning Meeting; WASHPaLS provided Board members an update on project activities and sought feedback on research activities planned for the various research streams.
 - Board meetings were not held in the third and fourth quarters of the year, as we felt that there was not significant progress in planning and implementation of the field research to warrant a meeting.
- Over the course of the year WASHPaLS shared the final drafts of the three desk reviews with Board members for their feedback before making the documents publicly available. Board members have been kept abreast of project activities through periodic emails and via individual communication from WASHPaLS team members

Engagement Strategy

The WASHPaLS team finalized the project's strategy for engaging with local and international partners, collaborators and stakeholders. The final strategy document incorporates feedback received from USAID and reflects the refinement of Component 2 implementation research questions, implementation approach, countries and partners involved. A section on local engagement is included in the Inception Reports being generated for each Component 2 research stream. WASHPaLS also began producing a

series of communications materials to post on the WASHPaLS microsite on the USAID/CKM's globalwaters.org website, which went live in July, and to share with in-county networks.

COMPONENT I: SHORT-TERM TECHNICAL ASSISTANCE TO USAID

WASHPaLS offers USAID Missions and technical bureaus access to international experts to provide short-term technical assistance (STTA) on a range of WASH themes. STTA provided under Component I is entirely demand driven and requires operating units to buy-in to the mechanism. WASHPaLS can accommodate up to \$15 million in buy-ins over the life of the project. To date, \$2,864,738 has been obligated to the project to cover 4 STTA requests (see Table I).

TABLE I: COMPONENT I WORK ORDERS ISSUED TO DATE

Work Order Name	Requesting Operating Unit	Budget	Implementation Dates	Status
1. NOURISH IE	E3/W	\$1,100,000	August 2018-August 2020	Activity ongoing
2. RAPID IE	KEA	\$614,738	June 2018 – February 2021	Activity ongoing
3. KIWASH PE	KEA	\$200,000	September 2018 – January 2019	Activity ongoing
4. MHM	E3/GEWE	\$950,000	TBD	Awaiting SOW

NOURISH Impact Evaluation

In January, WASHPaLS submitted a technical and financial proposal to support completion of the impact evaluation (IE) for the USAID/Cambodia NOURISH project. USAID shared feedback on the proposal in February and WASHPaLS submitted a revised technical and financial proposal in March, which was approved in April.

The IE was designed by the E3 Analytics and Evaluation Project that was to end in September 2018 but has since been granted a 2-year extension. WASHPaLS took over management of the IE on October 1, 2018, while maintaining the existing evaluation team, including the Principal Investigator (from Georgia Tech), Evaluation Coordinator (Management Systems International (MSI)), WASH Specialist and Local Coordinator (Independent Consultants). The IE will evaluate the effectiveness of integrating sanitation and hygiene interventions along with nutrition services in improving child linear growth, as well as whether this integrated approach is more effective than stand-alone nutrition or sanitation/hygiene interventions, respectively. The anticipated period of performance for the evaluation is September 2018 to August 2020. In September, WASHPaLS met with the evaluation team to discuss the transition of activities from the E3 Project to WASHPaLS and IE implementation status and needs. The bulk of the work, which includes undertaking program fidelity monitoring, endline data collection, and data analysis tasks, will be completed in Year 3 of WASHPaLS.

Kenya RAPID Impact Evaluation

In March, WASHPaLS received a request from USAID/Kenya to implement an IE to study the effectiveness of using sensors to collect and transmit data on handpump usage to be introduced as part of the five-year Kenya Resilient Arid Lands Partnership for Integrated Development (Kenya RAPID), co-

funded by USAID. WASHPaLS submitted technical and financial proposals to USAID in April and received approval in June.

As with the NOURISH IE, the E3 Analytics and Evaluation Project designed the methodology for the RAPID IE, aimed at understanding whether and how access to sensor data on boreholes in arid areas affects water point functionality and improves water management in periods of drought. Sensors will be installed on 400 boreholes and water service providers will be given tools and trainings to access and use sensor data to rapidly identify and diagnose borehole performance issues. Over the course of the two-year study, WASHPaLS will oversee management of data collection, data analysis and associated reporting.

Baseline activities were originally scheduled to begin in May 2018 before the start of the RAPID intervention, but given delays with the approval process, activities began after the RAPID intervention was underway. WASHPaLS held several discussions with the evaluation team to confirm that starting data collection after inception of the RAPID intervention would not affect the validity of the evaluation approach. Upon receiving USAID approval, WASHPaLS issued agreements to hire the Principal Investigator, Evaluation Specialist, Local Coordinator and the local survey firm, Ipsos. WASHPaLS subcontractor Aquaya, who has an office in Kenya, also will play a key role in the IE by providing the Qualitative Researcher, Statistician, Data Manager and other roles.

The Evaluation Specialist travelled to Kenya in mid-July to guide the start of Round I data collection. In August and September, Ipsos completed the borehole asset survey on 132 boreholes in non-RAPID counties and installed sensors at each location. Also, in August, an application for ethical approval for qualitative research portion was submitted to the local review board KEMRI, in preparation to implement key informant interviews and group discussions beginning in October 2018. (KEMRI approval was received in October 2018.)

KIWASH Midterm Performance Evaluation

In July, WASHPaLS received a request from USAID/Kenya and East Africa (USAID/KEA) to carry out a midterm performance evaluation of the KIWASH project. KIWASH aims to accelerate and sustain improvements in water and sanitation access and services and improve complementary hygiene behaviors in eight counties in Kenya. It is a five-year activity that is entering its fourth year of implementation as of October 2018. The primary purpose of the evaluation is to assess the appropriateness of the project design and progress of implementation to-date to inform future USAID/KEA WASH and nutrition programming. The evaluation also will inform USAID/KEA if the approaches employed by the implementing partner are successfully meeting the project's goal of expanding sustainable access to water and sanitation services through market-based approaches.

WASHPaLS submitted technical and financial proposals to USAID in August and received approval and notice to proceed in September. A team of consultants was onboarded immediately thereafter, including the Team Leader, Nutrition Specialist, Gender Specialist/Local Coordinator, Governance Specialist, and WASH Specialist, in preparation for a kick-off call with the Mission on October 1.

Menstrual Hygiene Management Activity

Late in Year 2, USAID obligated \$950,000 for an activity on Menstrual Hygiene Management (MHM), the scope of which is still under development. WASHPaLS expects to receive the full SOW and formal work order request in Year 3.

COMPONENT 2: IMPLEMENTATION RESEARCH

Component 2 is divided into three research streams:

- in-depth examination and analysis of Community Led Total Sanitation (CLTS) (Task 2.1), led by the Aquaya Institute, including a dedicated Information and Communication Technology (ICT) solution activity, led by Tetra Tech (Task 2.1.3);
- exploration of market-based sanitation (MBS), led by FSG (Task 2.2); and
- design and implementation of field research to improve hygienic environments (“safe play spaces” (SPS)) for IYC, led by FHI 360 (Task 2.3).

Each of the research streams consists of two sequential phases: an initial literature review or desk review to identify current gaps in the evidence base, which was a major focus of Year 1 activities, followed by a field-based implementation research phase that seeks to fill some of the identified gaps.

The WASHPaLS Research Working Group, comprised of two external Research Advisors and technical leads from the various research streams, did not meet formally during the year, but the Research Advisors were significantly involved in discussions with individual WASHPaLS research leads on design of the field research, including participation at the UNC Water and Health Conference.

Year 2 progress under each of the Tasks is presented below.

Task 2.1. Community- Led Total Sanitation

Task 2.1.1. In Year 2, WASHPaLS finalized the CLTS desk review, *CLTS’ Contributions to Ending Open Defecation*, incorporating feedback from a wide range of stakeholders, including USAID, Advisory Board, and several external and internal reviewers. In October 2017, WASHPaLS presented findings of the desk review at a WASHPaLS co-convened session during the UNC Water and Health Conference and in December via a webinar hosted by the USAID/CKM Project, which was attended by 107 people. WASHPaLS disseminated the review widely through the globalwaters.org and Tetra Tech websites, WASH sector networks, and social media.

In Year 2 WASHPaLS prepared a draft manuscript for peer-reviewed publication and will submit for USAID review early in Year 3. This manuscript will provide a critical analysis of the rapid mainstreaming of CLTS as public policy for rural sanitation across much of the developing world. The targeted journal for this manuscript is *World Development*.

Task 2.1.2. The CLTS desk review revealed that while CLTS programs have been implemented on a widespread basis and have achieved reductions in open defecation (OD) in selected settings, there is a paucity of reliable monitoring information on which to judge program performance. This lack of data is not only with respect to specific OD reductions and increases in latrine coverage, but also with respect to

In consultation with USAID, WASHPaLS narrowed the field research focus to two areas: 1) understanding the contours of the CLTS “performance envelope” and 2) testing the potential of targeted subsidies for improving CLTS program effectiveness, equity and sustainability.

health gains attributable to the practice of CLTS, the most effective CLTS implementation modalities, the potential of CLTS to propel participants up the sanitation ladder, and its ability to reach the most vulnerable. As a result, WASHPaLS aimed to narrow the focus of CLTS implementation research to fill some of these knowledge gaps and provide valuable evidence to CLTS practitioners. Following two rounds of public consultations at the UNC Health and Water Conference and during Stockholm World Water Week in 2017, in addition to significant input from USAID and Advisory Board members, two themes for research were selected: targeted subsidies and the CLTS performance envelope. WASHPaLS confirmed the relevance of these research themes with CLTS practitioners during two Regional

Learning & Sharing workshops in Tanzania in April 2018 and Senegal in June 2018 hosted by the CLTS Hub at the Institute of Development Studies (IDS)

Targeted subsidies: This theme investigates whether targeted subsidies can improve the outcomes of CLTS programs by focusing on the following questions:

- 1) To what extent do targeted subsidies result in increased latrine ownership, quality, and sustained usage amongst the poorest of the poor and the rest of the community?
- 2) How does the subsidy modality (e.g., subsidy type, amount, timing of disclosure to the community) bear upon outcomes?

The WASHPaLS Advisory Board helped to identify potential partners and sites for research. After numerous discussions with potential partners in multiple countries, we assessed four countries as potential sites for experimental research—Ghana, Senegal, Uganda, and Malawi. During a November 2017 scoping trip to Ghana, WASHPaLS staff met with key CLTS stakeholders, including Global Communities, UNICEF, and the Ministry of Sanitation and Water Resources, to discuss the viability of implementing the subsidy research in Ghana. The discussions revealed that Ghana met most of the country selection criteria. UNICEF Ghana emerged as the most suitable partner for this study because of the Ghanaian government's interest in exploring the effectiveness of subsidies to reach universal sanitation coverage and synergies with work UNICEF has already begun in country. In parallel, WASHPaLS conducted a focused desk review to inform the specific details on the study design and subsidy modality.

In May 2018, WASHPaLS conducted a second scoping visit to Ghana to further explore a research partnership with UNICEF Ghana. In collaboration with the Ghanaian Ministry of Sanitation and Water Resources, UNICEF has developed a framework for financing sanitation, which includes a Social Fund to support the most vulnerable. UNICEF Ghana has non-USAID funding to implement a pro-poor subsidy in its CLTS program areas in 13 districts in the Northern Region between September 2018 and June 2019, providing the opportunity to collaborate with WASHPaLS to layer a randomized controlled trial (RCT) in select districts. The Northern region is one of the poorest regions in Ghana where UNICEF has implemented CLTS for many years and where CLTS has been the most successful.

WASHPaLS began formative research in Ghana in September 2018 to inform study design and the inception report, which will be submitted in Q1 of Year 3. The formative research resulted in the completion of eight village case studies, the opportunity to pre-test survey tools with 150 households, and initial discussions on study districts. A memorandum of understanding (MOU) with UNICEF was under review at the end of Year 2 (was fully executed in October 2018). Mission concurrence for this work was received in May 2018.

Performance envelope: This theme investigates the relative importance of factors associated with CLTS performance while focusing on the following questions:

- 1) What is the relative importance of contextual characteristics compared to program implementation for open defecation free (ODF) achievement?
- 2) What are the most successful implementation strategies to achieve and sustain ODF and promote the construction of durable latrines?

WASHPaLS is investigating these questions through (i) quantitative analysis of secondary data sets submitted by CLTS implementers and (ii) primary qualitative data collection to investigate performance factors that cannot easily be quantified. An inception report detailing the research design and methodology for both questions was approved by USAID in July 2018.

For the CLTS performance envelope work, WASHPaLS has secured CLTS datasets from four countries for quantitative analysis and has identified local partners in three countries for primary qualitative research.

For the quantitative component, WASHPaLS first issued a global call for data to key CLTS implementing organizations in November 2017. This global call was disseminated widely, including through the WASHPaLS Advisory Board. WASHPaLS received 18 responses and followed up with all respondents, but in some cases datasets were not readily available or did not include all required parameters, and in other cases the organization chose not to pursue collaboration. WASHPaLS secured partner agreements or letters of permission and received datasets from four countries: Cambodia (Plan/ Cambodia Rural Sanitation and Hygiene Improvement Program (CR-SHIP)), Ghana (Global Communities), Liberia (Global Communities), and Zambia (Akros/Zambia Ministry of Water Development Sanitation and Environmental Protection (MWDSEP)).

Discussions are still ongoing for potential additional datasets, including national datasets from Kenya and Mali, and UNICEF datasets for Ghana and Cambodia. Table 2 details CLTS datasets that meet the minimum requirements for inclusion in the study. For each dataset, WASHPaLS requires written consent through an MOU or letter of agreement that the data can be used for the project's research purposes and that findings may be published publicly in research briefs and academic journals. Securing these agreements took longer than anticipated, which resulted in a 1- to 2-month delay in this activity as compared with the Year 2 Work Plan.

Preliminary data analysis began on the Zambia (Akros/MWDSEP) dataset in July 2018 and on the Cambodia (Plan/CR-SHIP) dataset in September 2018. Cleaning the Zambia dataset and merging it with other existing datasets on contextual and implementation factors took over two person-months. These steps led to a cleaned dataset of 20,398 villages (down from 30,343 in the raw Akros dataset).

TABLE 2: CLTS DATASETS FOR THE PERFORMANCE ENVELOPE STUDY

Country	Organization	Number of communities in dataset	Dataset coverage	GPS information available?	Smallest available administrative unit	Permission Status	Have dataset?
Cambodia	Plan International	2,302	5/24 provinces	No, but communities should be localizable	Commune	Signed Letter of Agreement	Yes
Ghana	UNICEF	~1,300	50/212 districts 5/10 regions	in < 5% of cases	Area/Town council	Pending UNICEF Ghana signing Letter of Permission	Have seen preliminary dataset
Ghana	Global Communities	~2,000	~ 40/212 districts	Yes, in 80% of cases	Area/Town council	Signed Letter of Agreement	Yes
Kenya	Ministry of Health	~23,000	47/47 counties (but not all report regularly)	in 30-40% of cases (and not reliable)	Ward	On hold, pending USAID Mission Approval	No
Liberia	Global Communities	2,095	6/15 counties	in most cases	Clan	Signed Letter of Agreement	Yes
Zambia	MWDSEP/ Akros	~30,000	68/110 districts	in most cases	Chiefdom	Signed Letter of Permission	Yes

For question 2 of the CLTS Performance Envelope research (implementation strategies for sustained ODF), the research approach is exclusively qualitative, employing a comparative case study design. This research will examine communities that (i) never achieved ODF status, (ii) achieved but did not sustain ODF status, and (iii) sustained ODF status. WASHPaLS identified three countries for the qualitative research: Cambodia, Zambia, and Ghana and drafted data collection tools, which were reviewed by the Iris Group for GESI considerations and by Cambodian local partner, CR-SHIP/Plan. The research study was submitted to the Western Institutional Review Board (WIRB) for international ethics approvals of primary data collection activities and instruments in early August 2018 and an exemption was granted.

A partnering agreement in Cambodia with CR-SHIP/Plan was secured in May 2018, and the research protocol was submitted for review and approved by Cambodia's local review board in September 2018. A scoping mission and pilot of data collection tools originally scheduled for July 2018 was delayed until September 2018 by request of the Mission due to potential instability around local elections. The delay impacted the availability of the local consultant responsible for overseeing field data collection and hired earlier in Year 2, necessitating a new recruitment process at the end of Year 2. Data collection has therefore been delayed until Q1 of Year 3 in Cambodia, but the WASHPaLS team made significant progress during the scoping mission to select study communes and define indicators with local partner.

In Zambia, Tetra Tech established a subcontract with Akros in July 2018, primarily to support the ICT work (see below), but also to provide support in submittal of the applications for ethical approval to local review boards ERES and NHRA; these have been drafted and will be completed and submitted after the scoping mission. The scoping mission to Zambia initially planned for August 2018 was delayed due to challenges in reaching agreement with local stakeholders and receiving Mission Concurrence. This has now been rescheduled for Q1 of Year 3.

Task 2.1.3. In Year 2 WASHPaLS completed the ICT landscape assessment, which was approved by USAID in July 2018 and disseminated through globalwaters.org and other networks, and launched the mobile-to-web (M2W) assessment in Zambia. The M2W assessment examines the effectiveness of deploying an ICT tool to aid at-scale CLTS implementation and reporting through a case study analysis of the M2W platform developed by Akros in collaboration with the Ministry of Housing and Local Government under the UNICEF Zambia Sanitation and Hygiene Project (ZSHP), which is funded by DFID. Specifically, this research examines the following questions:

- 1) To what extent is the M2W platform used for public sector decision-making?
- 2) What did it take to successfully implement the M2W platform at scale? What factors contribute to the sustainability of M2W?

Methods for this study include review of documentation and lessons learned from Akros as well as interviews with the MWDSEP, Real Time Monitoring coaches who promote the use of M2W data, district officials using M2W, other CLTS implementers in Zambia, and local UNICEF staff. Pending UNICEF concurrence, the study also will include an analysis of costs required to sustain M2W and quantitative analysis of external factors on reporting rates.

In collaboration with local partner, Akros, WASHPaLS developed a research brief laying out the scope of the assessment. In May, a joint Aquaya and Tetra Tech scoping trip to Zambia provided the team with background to facilitate design of the research activities. Meetings and introductions to USAID/Zambia, MWDSEP, Akros and others laid the groundwork for future collaboration. Based on scoping trip findings, WASHPaLS developed an inception report for this assessment, which was submitted to USAID and approved in July 2018 with data collection scheduled for late July/early August. Tetra Tech subcontracted local partner Akros, who designed, developed and implemented the M2W platform with funding from UNICEF, to document the lessons learned during that activity. Upon the launch of data collection activities, UNICEF raised concerns to the M2W assessment and initially limited Akros from working with WASHPaLS. The team worked closely with multiple levels of UNICEF to identify solutions

to these concerns, with UNICEF Zambia eventually giving the go-ahead for Akros to work with WASHPaLS on this assessment, on the condition that UNICEF review any documents produced by Akros before release to WASHPaLS for review and analysis.

Task 2.2. Market-Based Sanitation

Task 2.2.1. WASHPaLS published the MBS desk review, *Scaling Market-Based Sanitation*, in June 2018 based on analysis of 13 interventions and a literature survey of nearly 600 documents. The desk review incorporated feedback from five implementers whose interventions were included in the report as well as reviews by USAID and the WASHPaLS Advisory Board. Key findings of the review are provided in the text box below. Although not part of the original scope, a journal paper is under preparation that expands on the top-level findings from the systematic MBS interventions selection process for the desk review.

Key findings from the MBS Desk Review

- Few “true” market-based sanitation interventions have scaled. With the operational definition of “scale” as the sale of at least 10,000 toilets, scale is rare.
- Among MBS interventions at scale, there is considerable variance in unit cost. Many of the interventions in our sample were able to sell more than 10,000 toilets at a programmatic unit cost of US \$20 to \$50.
- Scaling takes time. Year-by-year trends of toilets sold in selected interventions suggest that sales begin to accelerate 4 to 5 years after the initiation of the intervention (supporting the argument to extend the typical donor funding cycle of 3 to 5 years).
- MBS interventions face significant barriers to scale across the sanitation market system.
- Locally relevant sanitation enterprises, the core component of the sanitation market system, are appreciative of both customer *and* existing entrepreneurs in the market.
- Demand *activation* is an essential element of a sanitation enterprise and differs from demand *generation*. Demand activation mechanisms as well as market-compatible financial mechanisms are required to overcome barriers to customers’ participation in the sanitation market.
- Different delivery models can reduce the number of transactions and interaction points for customers to increase convenience, enhance supply of quality toilets, and reduce costs.
- Interventions impacting the business environment can accelerate transactions between customers and entrepreneurs and/or reduce barriers to participation in the market.
- MBS alone might not be an adequate approach in all markets. Broader contextual factors determine and impact the effectiveness of MBS in a given market.

To target diverse audiences and maximize reach, the desk review is hosted on multiple websites including those of globalwaters.org, Tetra Tech, and FSG. In addition, independent entities such as Sustainable Sanitation Alliance (SuSanA), IssueLab, WASHFund, and Programme Solidarité Eau have hosted the report and/or linked to the globalwaters.org webpage for the desk review. A learning brief summarizing the findings from the desk review has been drafted.

WASHPaLS has actively disseminated and socialized the desk review findings through a range of channels. In-person presentations made at events and meetings (see below) were attended by the core audience of funders and implementers:

- An Open Technical Session titled “Rethinking Rural Sanitation: Practical Pathways to Outcome-Focused Programming” convened by USAID at the UNC Water & Health Conference 2017 on 16th October 2017 attended by approximately 50 people;
- UNICEF Sanitation Marketing Consultation conference in Copenhagen on 7th May 2018, attended by approximately 30 people

- The National Sanitation Working Group in Abuja, Nigeria on 9th May 2018 hosted by the Federal Ministry of Water Resources, Government of Nigeria and convened by WaterAid Nigeria, attended by 45 people;
- UNICEF WASHNET meeting in New York City from June 5-7, 2018,
- MBS sub-committee of National Sanitation Working Group in Kampala, Uganda.

WASHPaLS conducted three webinars beginning with “*Scaling Market-Based Sanitation: An Overview*” (10th July and a repeat webinar on 12th July 2018) to introduce the MBS framework, elements of a comprehensive sanitation market system, and key concepts to scaling sanitation markets, with 97 participants combined. Subsequently, WASHPaLS continued the series with a webinar on “*Designing Effective Sanitation Enterprises*” that focused on the sanitation enterprise component of the MBS framework, with approximately 110 participants. While the first two webinars featured WASHPaLS and USAID staff on the Q&A panel, the third webinar panel comprised of practitioners from partner organizations including PSI India, WaterAid Nigeria, and WaterSHED Cambodia.

The desk review and presentations have been positively received and the MBS framework has drawn substantial interest from practitioners. These discussions surfaced ideas such as generating additional case studies to socialize the MBS Framework, partnering with specific interventions for future Task 2.2 implementation research, and providing knowledge support to a potential “*MBS Community of Practice*”.

Task 2.2.2. Phase 1. WASHPaLS designed the MBS research activities to respond to evidence gaps identified in the MBS desk review. The review revealed that despite the importance of enterprise viability, there is very little evidence on its underlying factors, strategies for improving the viability of sanitation enterprises and entrepreneurs, or on the type of capital most beneficial for enterprise growth. Additionally, the review highlighted the importance of market rules for improving the functioning of sanitation markets as well as how governments can shape those rules. Research to address these evidence gaps will help future interventions better support the development of vibrant sanitation markets that provide customers with a range of high-quality and competitively-priced products and services.

The central research questions and research design are the following:

1. *How can sanitation enterprises be made viable and sustainable?*

- How can sanitation enterprises be made viable at a business level (including all relevant costs such as sales incentives, depreciation, etc.)? How do choices of product system and delivery model impact the viability of a sanitation enterprise? How does women’s participation in the sanitation value chain impact viability of sanitation enterprises?
- What profiles of existing entrepreneurs are best suited to play the role of focal point in a sanitation market? As sanitation entrepreneurs, what barriers to success do women face (including access to finance)? How can women overcome these barriers?
- How can sanitation enterprises’ sustainability be ensured after the ongoing public goods investments (e.g., development and training of a demand activator cadre, sales incentives, etc.) are withdrawn, as donors and funders exit the market? What financial capital support do sanitation enterprises need to improve their viability?

To study the viability of sanitation enterprises, WASHPaLS proposed a retrospective/prospective case study analysis for completion in two phases. In consultation with USAID, WASHPaLS undertook retrospective research in three countries (Phase I) in Year 2 and had deferred the decision on designing and executing prospective research (Phase II) to Year 3, pending results from the retrospective phase.

2. To what extent can change in market rules (e.g., legal or regulatory) improve the environment for sanitation markets?

- What is the impact of penalties (e.g., via denial of service) on higher-income households (owner-occupied or landlord-owned) that can afford but do not own toilets?
- How do reduced tariffs/taxes impact toilet prices and a consequent change in toilet sales?
- How do policies that support entrepreneurs in the market directly (e.g., priority access to critical inputs) impact their viability and market depth?

The market rules research is being supported by the development of decision support models for sanitation-related policymaking. Base models for three policy levers have been prepared: penalties on non-adoption of toilets amongst higher income landlords; reduction of taxes/tariffs on inputs required to build toilets; and support for entrepreneurs by guaranteeing minimum income to commission-based demand activators. The three base models were developed for three different markets, which were selected based on a precedent, suitability of market conditions for a policy (e.g., appropriate taxation system), and/or availability of relevant data. To demonstrate the utility of the tools in policy related decision-making, WASHPaLS adapted these tools for a single market to assess the relative cost-benefits of the three policies levers.

“The findings you have shown raise important questions for us to find out such as why some entrepreneurs don’t follow these practices (to become viable). There are some complex concepts here but I would like to learn them so I can present your findings to others in WaterAid as well as UNICEF which has adopted SanMark in a big way in Nigeria.” – WaterAid Nigeria

In Year 2 WASHPaLS made substantial progress on both research questions. For the Phase 1 retrospective analysis of enterprise viability, WASHPaLS formally partnered with three implementers—WaterSHED in Cambodia, PSI in India, and WaterAid in Nigeria—to interview 64 active and 24 inactive sanitation enterprises, 40 associated supply chain actors, and intervention staff (see Table 3). We constructed bottom-up, detailed profit and loss (P&L) statements for all active enterprises to assess viability levels and analyze the factors that distinguished performance based on interviews with enterprises and associated supply chain actors. In the interim, WASHPaLS presented draft findings to partners for their initial reactions and comments; feedback has been very positive.

TABLE 3: INTERVIEWS CONDUCTED FOR MBS VIABILITY STUDY

Category	Cambodia	India	Nigeria	Total
Active enterprises	25	28	11	64
Inactive enterprises	6	6	12	24
Demand Activators	7	11	7	25
Input suppliers	2	2	5	9
Masons	-	2	-	2
Credit providers	1	-	3	4

Also in Year 2, WASHPaLS developed base models for each of the three policy levers described above using data from three countries—penalties on non-adoption of toilets amongst higher income landlords based on data from Ghana; reduction of taxes/tariffs on inputs required to build toilets with data from Cambodia; and support for entrepreneurs by guaranteeing minimum income to commission-based demand activators using data from Bihar, India. This work was done using publicly available data.

We shared two of the models (penalties and support) with experts from implementer organizations (WSUP, Ghana and PSI, India) and received positive feedback on the logic, key assumptions, sense-check outputs, and utility of the model from a practitioner's perspective. The "tariffs/taxes" model, which does not have a precedent in the sanitation market, was reviewed by the Deputy Project Director and MBS Research Advisor and shared with USAID for review. WASHPaLS customized each model for the Uganda market to assess model results in another country. It is proposed to present models and their outputs to government official(s) in partnership with the USAID Uganda Sanitation for Health (S4H) project early in Year 3. We expect to complete the guides and a report illustrating the utility of decision support tools for sanitation-related policymaking in Q1 of Year 3.

Task 2.2.2. Phase 2. To complement the retrospective research, we initially proposed to collect and analyze prospective data from three relatively nascent MBS interventions in less mature markets. This tactic would require identifying three programs that are at an appropriate phase for this research, securing formal agreements with partner implementers, and incorporating the prospective data tracking parameters in the partner programs' M&E systems. We anticipate these steps to take approximately three to four months post-approval of an inception report. Data collection would start concurrently in each of these interventions and last for a period of at least 12 months.

However, in light of the novel outcomes from the MBS desk review and retrospective research, WASHPaLS is considering the best approach to maximize the impact, engagement and uptake of the research. For example, practitioner response to the MBS framework has been strong, and organizations like EMW and iDE have reached out to WASHPaLS to enquire about how the framework could be applied to countries in which they are currently engaged. Initial findings from the retrospective research further suggest that the metrics and methods used by WASHPaLS to analyze entrepreneur viability are not well known in the WASH sector and could be developed into a toolkit, manual or training series on MBS M&E practices that could be piloted and rolled out. We expect MBS activities for Year 3 to be further refined following internal discussions and further consultations with USAID early in Year 3.

Task 2.3. Hygienic Environments for Infants and Young Children

Task 2.3.1. The IYC safe play spaces literature review, *Toward a Hygienic Environment for Infants and Young Children*, was approved by USAID and finalized in February 2018. WASHPaLS publicly disseminated the review through the globalwaters.org and Tetra Tech websites, a USAID-hosted webinar in April 2018 and a related blog, and presented initial findings at the UNC Water and Health Conference in October 2017. The literature review and related presentations generated discussion on interventions to address the neglected pathways of the F-diagram (those related to animal feces) and contributed to a growing consensus on the importance of focusing on hygienic environments for IYC as a key under-emphasized pathway for improved growth and development.

Task 2.3.2. In Year 2, WASHPaLS worked intensively with Advisory Board Members, Research Advisors Joe Brown and Francis Ngunjiri, and others to develop and refine the primary research questions as a follow-on to the literature review and methodologies to best address them. WASHPaLS pursued various lines of inquiry around the suitability of specific exposure measures, consulting with the principle investigators of several key RCTs, forming an informal community of practice with several other researchers conducting formative research on hygienic play spaces for IYC. WASHPaLS developed various iterations of a Research Plan and Inception Report, which was approved in September 2018. The research, which includes four phases—a user centered design workshop, TIPS, a biological plausibility RCT, and an exposure study—seeks to answer two central questions:

Primary question: *Does a protective play space product (playmat and playpen) and accompanying behavioral intervention significantly reduce exposure of IYC to harmful enteric pathogens?*

Secondary question: *How consistent are use and maintenance of the play space? What behavioral determinants most influence consistent use and maintenance of such a product?*

New evidence from studies such as the Sanitation Hygiene Infant Nutrition Efficacy (SHINE) trial, WASH Benefits, and other inputs informed planning, but also contributed to an evolving foundation on which to build our research. Preliminary findings from these three important RCTs (WASH Benefits Kenya and Bangladesh and SHINE in Zimbabwe), as well as several rounds of discussions with USAID and the WASHPaLS Research Advisors, reoriented the focus of the proposed research from a health outcome study to an environmental exposure study. By late in Year 2, a consensus was building with USAID to drop the planned exposure study (Phase 4) while strengthening the Biological Plausibility RCT (Phase 3).

Identifying an implementation partner. Concurrently, WASHPaLS worked closely with USAID to identify projects for collaboration, to provide a programmatic platform on which to overlay the hygienic environments research. WASHPaLS held discussions with field teams from Ethiopia and Malawi and staff from their US-based headquarters to determine if safe play spaces (including a research component) could be added onto their community-level programming. In early November 2017, the Senior Behavior Change Specialist (SBCS) met with the Growth through Nutrition (GtN) project staff and USAID staff in Ethiopia to discuss collaboration in greater detail, and both showed great interest in collaboration.

A two-week scoping visit to Ethiopia in February 2018 further explored key issues related to the research design and concluded that conditions were appropriate for grounding the Safe Play Space research in Ethiopia. Laboratory capacity and sample collection centers throughout the country would allow for analysis of fresh stool samples as part of an RCT study design (this part of the study has been dropped). WASHPaLS led an intensive two-day Design Workshop on the proposed research with USAID implementing partners GtN (led by Save the Children) and Transform WASH (led by PSI). While GtN contributed significantly to advancing the study design, keenness to collaborate on the research waned as the two projects delved deeper into timeline and fit.

WASHPaLS continued searching for an implementation partner and identified interest and potential fit with Plan International and World Vision. WASHPaLS held multiple discussions with both organizations, including discussions with World Vision Headquarters staff (established partners through the Clean, Fed and Nurtured Coalition). Given strict government restrictions on adding any topical material to existing maternal and child health outreach programs, development partners have limited flexibility to adjust these programs to incorporate household delivery of behavior change messaging as part of the SPS research. At a minimum, the ideal implementation partner will provide vital introductions at the district and local level, building on their established rapport and agreements with local government and communities; and involvement in a community-level behavior change event that builds on CLTS/ODF commitments to spur support of hygienic environments for IYC.

Identifying the appropriate playpen hardware to test effectiveness. The proposed exposure study depends upon the availability of a safe play space (or playpen), which has significant implications for the detailed research plan. WASHPaLS looked for safe, appealing, affordable and scalable playpen options on the global and local retail market, consulting with other hygienic environment research pioneers and searching intensively through the internet, but the search yielded no viable options. WASHPaLS and USAID agreed to a two-prong strategy to identify playpen models: 1) contract the Ethiopia-based USAID Transform WASH Project to facilitate a user-centered design workshop aimed at developing prototype play spaces meeting the design criteria and 2) engage Asia-based manufacturers to project the cost and feasibility of imported playpen models at scale. Both strategies sought to identify models that would be within the reach of the rural poor. By late Year 2, three models were identified for inclusion in the Trials of Improved Practices (TIPS) household trials: two locally designed and produced (in Ethiopia) playpens and one Chinese manufactured model.

The lack of availability of a commercially viable play space in-country was unanticipated and caused additional work for product development and delays in the projected timeline. However, there are advantages to the approach of previous playpen research which had employed models valued above

US\$100, not available in the local market and clearly out of reach of most poor, rural households, even if found to be effective and protective.

Gaining scientific and ethical approval. Delays in finalizing the study methodology and study site also delayed submission of the study protocol for US and local ethical review. The scientific and ethical review process was initiated in June 2018 and continues through Year 2, given on-going changes to the study design.

Hiring a local Field Coordinator. WASHPaLS conducted a personnel search late in Year 2 and hired a highly qualified Field Coordinator to facilitate planning and implementation of all study phases.

COMPONENT 3: SMALL GRANTS PROGRAM ON HYGIENE BEHAVIOR CHANGE

Through the \$1.5 million Grants under Contract program, WASHPaLS will award at least 10 grants to investigate the effectiveness of existing and innovative approaches to improve and sustain WASH-related healthy behaviors. Findings from these grant activities will contribute to the evidence base around effective behavior change programming and contributing to the project's broader learning agenda. In Year 2 WASHPaLS awarded three grants stemming from the first Request for Expression of Interest (REOI) and issued a second REOI for testing WASH behavior change innovations to reduce IYC exposure to poultry excreta, from which one grant agreement will be signed.

WASHPaLS awards three grants. In Q1 and Q2 FY18, WASHPaLS signed three grant agreements resulting from the first solicitation, the theme of which was "Habit Formation Approaches and Gender Equity and Social Inclusion Innovations for Hygiene Behavior Change." A summary of progress to date on these is provided in Table 4.

In December 2017, WASHPaLS signed a grant agreement with International Development Enterprises (iDE) to design, test, and monitor new strategies for increasing women's participation in the sanitation value chain in Nepal. In Q2, iDE began the formative research to inform the design of the pilot interventions, and in Q3, they submitted findings of this Deep Dive research analysis outlining a set of testable ideas and recommend pilot interventions. The findings from the Deep Dive study did not reveal the disparities and barriers for female community business facilitators (CBFs) that iDE expected to see and suggested that further opportunities for the CBFs to sell latrines were minimal given low rates of open defecation, which meant that it did not make sense to move forward with the originally proposed intervention. iDE and WASHPaLS worked closely to develop a new research plan more in line with hygiene behavior change and GESI innovation, which will capture and capitalize on the unique situation in the Terai region. The proposed mixed methods research will examine how CBF gender influences end-user hygiene and sanitation behaviors as related to purchase, installation, and use of latrines. It will include analysis of whether women CBFs are more successful at motivating households to purchase and install a latrine, as well as whether households who purchase a latrine from a female CBF more likely to practice the key hygiene and sanitation behaviors.

In January 2018, WASHPaLS signed a grant agreement with Splash International to test the effectiveness of hygiene nudges and hygiene education in Ethiopian schools and homes on improved and sustained handwashing behaviors. In schools, Splash is testing nudges such as the use of mirrors at handwashing stations, footprints leading from bathrooms to handwashing stations, and child-friendly design of handwashing stations; and in homes, Splash is testing barrels for handwashing, mirrors, soap and soap trays. Splash also is testing the effectiveness of long term behavior change through avenues such as hygiene clubs, child-to-child training, and school-wide events and soap drives. Grant activities seeks to answer the following questions: 1) do nudges have an impact on student handwashing behaviors, 2) what is the effectiveness of nudges in combination with hygiene education as compared to nudges alone, and 3) does distributing household nudges through school channels have an impact on handwashing with

soap at home. In Q3 Splash prepared a poster of its WASHPaLS grant activities which was presented at the 2018 International Social and Behavior Change Communication Summit.

In January 2018, WASHPaLS signed a grant agreement with the International Center for Diarrhoeal Disease Research, Bangladesh (ICDDR,B). This grant is testing the effectiveness of Mobile Health (mHealth) messaging as a reflexive, cue-driven approach to facilitate WASH behavior change, building on ICDDR,B's previously tested Cholera-Hospital-Based-Intervention-for-7-Days (CHoBI7) randomized control trial. ICDDR,B, with support from John Hopkins University, is designing and evaluating mHealth messages on safe disposal of child feces, improved food hygiene practices, and reducing mouthing of soil and other contaminated fomites. They have begun qualitative research training and launched the formative research phase of piloting the mHealth messages, conducting in-depth interviews and focus group discussions with key stakeholders, and refining the modules based on these findings.

TABLE 4: STATUS of ACTIVE GRANTS

GRANTEE AND ACTIVITY TITLE	BUDGET	PROGRESS TO DATE
Splash WASH-in-Schools Hygiene Nudges (Ethiopia)	\$99,965	• Work plan, Research Protocol, and Gender Analysis approved • IRB approval granted in US and Ethiopia • Data collectors trained on assessment tools • School and household nudges produced or purchased • No-cost extension modification signed
iDE Expanding women's role in Nepal's sanitation value chain	\$99,000	• Work plan, Research Protocol, and Gender Analysis approved • Phase 1 Deep Dive and Phase 2 Research Concepts submitted • Modification to remove pilot interventions current in agreement and add newly agreed upon research focus
ICDDR,B mHealth Messaging: An Innovative Approach to Promote Improved Caregiver and Child Hygiene Practices in Bangladesh	\$296,439	• Research Protocol and Gender Analysis approved • IRB approval granted • In-depth interviews and focus group discussions with key stakeholders initiated • Pilot study completed to inform intervention and evaluation • No-cost extension proposal submitted, and modification signed

WASHPaLS releases second Request for Expression of Interest (REOI). In early Q3, WASHPaLS issued the second REOI for 'Testing WASH Behavior Change Innovations to Reduce Exposure of Infants and Young Children to Poultry Excreta.' Of the 11 EOIs received, the Review and Evaluation Committee (REC) selected six applicants to proceed to developing Full Applications. Of the four full applications received, one was selected for award. WASHPaLS is finalizing technical and financial negotiations with anticipation of signing the grant agreement in Q1 of Year 3.

Developing themes for a third and final round of grants. In Q4, as part of the annual work planning process, WASHPaLS began to identify themes for what we anticipate will be the final round of grants. The range of topics will be fairly broad to increase the likelihood that we'll receive a sufficient number of EOIs from which to select and award the remaining six grants.

COMPONENT 4: PARTICIPATION IN STRATEGIC PARTNERSHIPS

Partnerships and active engagement with local systems, international networks and other USAID projects represent a significant opportunity for USAID and WASHPaLS to maximize its contributions and learning within the WASH sector. During Year 2, WASHPaLS staff continued engagement and discussions with several projects and organizations:

Sanitation and Water for All

In early October 2017, two consultants hired to perform a governance assessment of the global SWA partnership submitted a draft report detailing the governance challenges currently facing the Partnership. In December, they submitted a report on how to address the identified challenges and improve the current governance structure, presenting 55 recommendations across eight areas of governance—leadership; hosting arrangement; organizational structure; conflicts of interest; member roles, responsibilities, and constituencies; participation; decision making; and meeting structure/agenda/timing. Recommendations reflected a review and analysis of more than 60 documents and inputs from 34 interviews with key stakeholders, both within SWA and from other international partnerships beyond the WASH sector. The consultants presented the recommendations at the December 2017 SWA Steering Committee meeting in Maputo, Mozambique. WASHPaLS submitted the recommendations report to USAID in January 2018.

In February, WASHPaLS received a request from USAID to continue supporting the SWA partnership on a reorganization of their governance structure by implementing the recommendations stemming from the previous assignment. The draft guidelines were reviewed and approved by the SWA Finance and Governance Working Group. In June, the Consultant led a workshop at the SWA Steering Committee Meeting in Marrakesh, Morocco to present the new guidelines, which have been adopted by the SWA. In a subsequent request, SWA asked that WASHPaLS prepare several annexes of the report and participate in the SWA Steering Committee meeting in December 2018.

UNICEF

- ***Global Consultation on Influencing Sanitation Markets.*** In May, the Deputy Project Director (DPD), Research Advisor Mimi Jenkins, and Rishi Agarwal from FSG, traveled to Copenhagen, Denmark to attend the UNICEF-hosted Consultation. WASHPaLS presented the findings from the MBS desk review and status of the MBS research activities. Subsequently, UNICEF circulated an inclusive markets strategy to which the WASHPaLS attendees provided consolidated comments. WASHPaLS was also invited to join UNICEF's Strategic Reference group and to review and comment on sanitation and hygiene programming guidelines that UNICEF et al are developing, led by Andy Robinson.
- ***Annual WASHNET meeting:*** The TOCOR and Project Director participated in a 3-day consultation in New York City of UNICEF WASH officers from around the world. They presented an overview of the WASHPaLS project in plenary, as well as findings from the MBS desk review during a break out session.
- ***Country level partnerships for USAID-led CLTS research:*** CLTS performance envelope and M2W assessment in Zambia with the Ministry of Water and Akros (on a system established under UNICEF Zambia funding and handed over for government use), potential dataset provision for analysis by UNICEF Ghana and UNICEF Cambodia; and CLTS Targeted Subsidy work in close collaboration with UNICEF Ghana.

Global Handwashing Partnership

The SBCS continued to contribute to the Global Handwashing Partnership (GHP) Steering Committee, including planning for Global Handwashing Day 2018 and the Behavior Change Think Tank scheduled for October 2018 in the Philippines. WASHPaLS helped design three sessions, including the opening, a session on WASH and Nutrition Integration that will feature findings of the hygienic environments

literature review, and an extended session on handwashing measurement. The SBCS provided input to the 2018 Business Plan, the 2017 Annual Report and Results Framework measuring progress towards GHP's 2017-2019 Strategic Plan.

Clean, Fed & Nurtured Coalition

The SBCS and others led the merger of the Clean, Fed & Nurtured Community of Practice and BabyWASH Coalition, which will now be known as the Clean, Fed & Nurtured Coalition. In Year 2, as part of their leadership in the CFN Coalition, WASHPaLS contributed input to the Nurturing Care Framework being developed by WHO, UNICEF, the Partnership for Maternal, Newborn & Child Health and others. The framework draft required extensive WASH inputs and strengthening. Specific modifications to the framework were offered by both Clean, Fed & Nurtured and the GHP during two online consultations. Additionally, the SBCS made contributions to the Clean, Fed & Nurtured Coalition, including the submission of an abstract to the UNC Water and Health Conference.

CLTS Hub Workshops

WASHPaLS was invited to attend two learning and sharing workshops organized by the IDS CLTS Knowledge Hub, in Arusha, Tanzania (April 2018) and Sally, Senegal (June 2018). WASHPaLS engaged with CLTS implementers from across Africa, presented CLTS research findings, investigated the current “mindset” towards subsidies, and assessed the current needs and concerns in the sector.

Thrive

In October 2017, WASHPaLS received a request from Thrive Networks (Thrive), an international NGO working on WASH in southeast Asia, to provide financial support to finalize an IE of a CLTS subsidy program implemented in Laos that began with funding from the World Bank's Water and Sanitation Program (WSP). The approach includes sanitation marketing with demand generation through CLTS and adds innovative features to help poor households overcome financial barriers to improved sanitation and incentivize communities to become open defecation free.

WSP originally intended to fund the entire impact evaluation, but funding was discontinued with the emergence of the World Bank's new Water Practice before conducting the endline assessment. Thrive estimates the endline will cost approximately \$125,000 and to date has secured nearly \$60,000 of non-USG resources to this end. WASHPaLS held several discussions with Thrive regarding co-financing, in collaboration with the World Bank and the Australian Department of Foreign Affairs and Trade. In July 2018, WASHPaLS issued a subcontract to Thrive to cover approximately half of the IE endline activities, which include household surveys performed by a local survey firm, data cleaning and data management, and the development of the final summary statistics reports and presentations. This work complements the subsidy research and Thrive will present the results at the UNC Water and Health conference in October 2018.

USAID/CKM project

WASHPaLS had numerous interactions with USAID/CKM project staff to finalize the content of the WASHPaLS microsite on the globalwaters.org platform (www.globalwaters.org/WASHPaLS). The wireframe for the micro-site was approved by USAID and went live in July 2018. The WASHPaLS microsite currently hosts 14 products developed by the project including the four literature reviews, recordings of the four webinars, four blogs, a project fact sheet, and the global call for CLTS data and collaboration. WASHPaLS collaborated with USAID/CKM to host the four webinars and worked closely with USAID/CKM to improve available analytics on website traffic and webinar attendance.

USAID's centrally-funded water mechanisms

Throughout the year, the Project Director (PD) and/or another member of the WASHPaLS team attended the quarterly meetings of USAID's centrally-funded water mechanisms, including a meeting in December 2017 at which WALIS and the Sustainable WASH Systems projects presented results of work to date.

3.0 GENDER CONSIDERATIONS

Iris Group continues to lead WASHPaLS' efforts to integrate Gender and Social Inclusion (GESI) considerations across project components, with a particular focus on the work streams in Components 2 and 3. During Year 2, the focus of GESI support was on 1) ensuring attention to and integration of GESI considerations in the development of Component 2 inception reports and research documents (see text box); 2) supporting Round 1 grantees in development of their required gender assessments and the selection of Round 2 grantees; and 3) preparation of the WASHPaLS Gender Integration Plan (GIP). The GIP, currently being finalized since receiving USAID feedback, will support research teams to more systematically and thoroughly consider GESI in WASHPaLS interventions, ensuring that, to the extent reasonable, implementation research interventions and other project activities more deliberately integrate gender, are socially inclusive, and consider end users, while safeguarding against unintended consequences of project activities including approaches that may be gender-exploitative, further social exclusion, or have other negative social impacts. To prepare the GIP and support the recommendations provided there in, the GESI Specialist interviewed WASHPaLS technical staff and USAID representatives and performed a targeted literature review. A list of GESI touch points across the project is provided in Table 5.

Task 2.2.2 – Research Question 1. Women's participation in the sanitation supply chain in the retrospective research locations was low or absent. However, WASHPaLS interviewed 1 female-owned enterprise and 17 jointly-owned enterprises in Cambodia and 11 female demand activators in Cambodia and India to understand the impact of gender, if any, on their ability to participate and play their role in the market. WASHPaLS is finalizing the limited gender-related findings as part of its retrospective research.

TABLE 5: GESI INTEGRATION DURING YEAR 2

COMPONENT 2—RESEARCH STREAMS	
Task 2.1	- Met with Aquaya research team to discuss gender integration in the literature review and research designs - Integrated GESI language and supporting articles into 2.1.1 literature review - Reviewed draft of the performance envelope inception report
Task 2.2	- Met with FSG and research team to discuss gender integration in the research questions for 2.2.2 - For the entrepreneur viability question, provided specific feedback on GESI considerations for research sub questions, methodology, tools and analysis plan (see box) - Reviewed USAID comments on entrepreneur viability inception report
Task 2.3	Reviewed safe play space research inception report, participated in research meetings with the team
COMPONENT 3—GRANTS	
Round 1	- Provided technical assistance to Round 1 grantees for their gender analysis deliverables - Provided technical support to Round 1 grantees, particularly to the GESI grantee (iDE) to redesign research questions following the Deep Dive formative research
Round 2	- Participated in planning for and drafting of Round 2 grants REOI, to ensure GESI considerations were reflected in the call - Participated in initial grant selection process, to ensure GESI considerations were considered during selection - Participated in final Round 2 grantee selection, grant agreement negotiation

CROSS-CUTTING	
Semi-annual team meetings	- Delivered brief “Gender 101” presentation to the team, reviewing gender terms, outlining USAID’s policy priorities for gender and women’s empowerment, and giving brief overview of gender analysis and integration, including examples from WASHPaLS grantees - Presented preliminary results of the gender strategy, including guide to gender-sensitive research - Gave GESI-oriented feedback to research teams and on other technical presentations
Gender integration plan	Completed plan based on stakeholder interviews and targeted literature review
ICT	Reviewed and strengthened GESI integration in the ICT report
MELP	Worked with M&E Specialist to ensure GESI considerations were addressed in the MELP and reporting processes; reviewed revisions to MELP; and incorporated GESI reporting mechanisms to project results reporting templates
Conferences	GESI team members from Iris Group attended the UNC Water and Health Conference in October of 2017 to network on GESI issues and keep abreast of GESI and WASH research

4.0 MONITORING, EVALUATION & LEARNING

In Year 2, WASHPaLS submitted a revised Monitoring and Evaluation Plan (MEP) to incorporate changes approved in the Year 1 Annual Report. WASHPaLS successfully applied the data management system that was developed in Year 1 for tracking performance and management indicators using Google Sheets, Forms, and Drive. The Project M&E Specialist reviewed weekly activity updates, solicited reporting of specific results from the activity leads via Google Forms, and then validated and archived the results.

Results submitted via Google Forms were processed using linked Google Sheets, which enables automatic updating of the results summary tables and tables of results disaggregated by gender, topic area, country, etc., as specified in the MEP. These disaggregate tables are provided in Appendix 3 and will serve as a template for future reporting. As each of the 10 performance indicators specifies multiple disaggregates, the automatic generation of these table and standardized formatting will save significant time for future reporting. Additional context and narrative explanation of the summary results follows.

Review of Performance Indicators

Table 6 summarizes WASHPaLS achievements on the performance indicators against Year 2 and life-of-project targets, as stated in the revised MEP. These are discussed below.

Indicator C1 – Number of Missions, implementing partners, local governments and donors applying WASHPaLS approaches/tools AND Indicator C2 – Number of policies, laws, agreements, action plans, regulations, strategies, or investment agreements (public or private) influenced by WASHPaLS

Indicators C1 and C2 are closely interrelated, as one organization documenting one application of WASHPaLS approaches will log as one result for each indicator. While the target of 1 organization applying WASHPaLS approaches (C1) was not achieved in Year 2, a result for both indicators was logged on the first day of Year 3. These indicators measure long-term impact and are expected to

expand as learning products are disseminated and implementation research produces additional findings. The project is on track to reach life of project (LOP) targets.

Indicator C3 – Number of people with increased knowledge of WASH approaches/tools through exposure to WASHPaLS events, communications materials and products

WASHPaLS has documented 21 people claiming increased knowledge of WASH approaches or tools, as self-reported by webinar participants of the CLTS and Hygienic Environments and first two MBS webinars. An online survey was emailed to all registrants of the webinars, to reach attendees and those who may have viewed the recording later, with a response rate from actual participants of 6-10%. The survey allows for disaggregated data including gender, country, and affiliation. CKM, who hosted the webinars and controls the email list of participants, has agreed to incorporate future surveys into their post-webinar email, which may increase the response rate. The current practice of receiving the compiled contact list from CKM several days after the webinar and sending a second follow up email is not ideal and, as the above response rates show, not very effective. Note that an in-person survey, administered to participants of WASHPaLS sessions at the UNC Water and Health Conference 2018, prompted a greater number of responses (25-40%) but the data is less rich with no information on who was reached (no disaggregates for gender, affiliation, or country).

Although a system was established in Year 2 to administer a similar survey to individuals who downloaded WASHPaLS knowledge products from the Tetra Tech website, zero results have been obtained this way for a number of reasons. The website is set up to allow readers to opt in to the survey or bypass the contact form and download the report directly; and, based on website analytics, it appears that many of visitors to the report landing pages choose to bypass the survey. For the three major literature reviews to date (CLTS, Hygienic Environments, and MBS) the survey opt-in was added to the Tetra Tech website after the first wave of interest, generated by the associated webinars and initial dissemination, had passed. For example, the Hygienic Environments literature review was published in February, the survey went live in July, and there have been zero sign-ups for the survey to date. Two people opted in to the survey for each of the CLTS and MBS literature reviews, but there has been no response to date. Though the fourth desk review, on ICT for CLTS, was published simultaneously with a live survey, this product was not pushed out to the same degree (no webinar) and traffic to the Tetra Tech has been too low to cross the threshold where any survey responses are likely (i.e. a total of 3 visitors to report landing page between publishing on August 30th and close of the year on September 31st). In addition, dissemination efforts tend to direct traffic to the globalwaters.org website, which is managed by CKM. CKM has stated that they do not have the bandwidth to customize the WASHPaLS microsite to incorporate a similar opt-in survey, or to adopt this practice across their entire platform.

In lieu of documenting significant results as written in the MEP, we also have made efforts to estimate the number of people exposed to WASHPaLS findings through events and products, as this may be considered a proxy for people demonstrating increased knowledge. In this regard, we estimate that over 1,200 people have been reached through events and products that have significant potential to result in increased knowledge. These values, provided in Table 7 below, are based on the number of people attending webinars or events or downloading communication materials (estimated). Based largely on anonymous data, it is not possible to account for duplication if the same individual accesses multiple documents or events.

TABLE 6: PERFORMANCE INDICATORS RESULTS AND TARGETS

N°	Performance Indicator	RESULTS					YEAR 2 Target	Variance	Results To Date	LOP Target
		Q1	Q2	Q3	Q4	YEAR 2				
C1	Number of Missions, implementing partners, local governments and donors applying WASHPaLS approaches/tools (Custom) [OUTCOME]	0	0	0	0	0	1	-1	0	11
C2	Number of policies, laws, agreements, action plans, regulations, strategies, or investment agreements (public or private) influenced by WASHPaLS (Custom) [OUTCOME]	0	0	0	0	0	0	0	0	6
C3	Number of people with increased knowledge of WASH approaches/tools through exposure to WASHPaLS events, communications materials and products (Custom) [OUTCOME]	0	10	4	7	21	TBD	N/A	21	TBD
C5	Number of workshops/events at which research methods, preliminary results and findings are presented (Custom) [OUTPUT]	3	2	6	2	13	6	+7	16	30
1.1	Number of technical assistance assignments and technical reports produced by WASHPaLS team (Custom) [OUTPUT]	0	0	2	1	3	5	-2	3	20
1.2	Level of Mission satisfaction with the responsiveness and quality of WASHPaLS Technical Assistance (Custom) [OUTPUT]	0	0	0	0	0	7.5	N/A	N/A	8.5
2.1	Number of local partners actively participating in research activities designed and implemented by WASHPaLS (Custom) [OUTPUT]	0	6	2	2	10	12	-2	10	28
2.2	Number of peer-reviewed scientific publications resulting from USG support to research and implementation programs (STIR-12) [OUTPUT]	0	0	0	0	0	1	-1	0	4
3.1	Number of grants awarded to behavior change innovators (Custom) [OUTPUT]	1	2	0	0	3	3	0	3	10
4.1	Number of partnerships established or supported (Custom) [OUTPUT]	0	0	2	1	3	5	-2	9	24

Table 7: Number of people exposed to WASHPaLS events and communications products

	Q1	Q2	Q3	Q4	YEAR	TO DATE
Events	267	18	245	334	864	1081
Communications Materials and Products (estimated downloads)	0	123	263	116	502	502
SUBTOTAL	267	141	508	450	1366	1583

WASHPaLS presented findings through 5 webinars in year 2, which were hosted by the USAID/CKM project on BigMarker and GoToWebinar platforms. CKM provided statistics on webinar attendance and, later, views of the recorded webinar; and results exclude participants who exited within the first 2 minutes of the recording. WASHPaLS also delivered 10 in-person presentations, for which all participants were counted.

Currently, the four major WASHPaLS learning products can be downloaded from several websites, including: globalwaters.org, TetraTech.com/papers, USAID's Development Experience Clearinghouse (DEC) (dec.usaid.gov), SuSanA.org, FSG.org, and CLTS Knowledge Hub (communityledtotalsanitation.org). We have systems in place to obtain statistics of visitors to (but not downloads from) the first two sites, globalwaters and Tetra Tech. Functionality to also track number of downloads will be added on both sites for next year's reporting. FSG has provided traffic and download statistics, as have USAID and IDS for the DEC and CLTS Knowledge Hub sites. SuSanA posts live statistics on their site. In those few instances where we have data for both the number of visitors and number of downloads, we note that an average of 9% of people who view the report landing page also download the report. Extrapolating that download rate to the sites where we only have data on number of visitors, yields the values in the Table 7. All other known dissemination platforms (Sanitation Updates, Twitter and other social media, and email distribution lists) direct traffic to either globalwaters.org or the Tetra Tech site to access the full report. This data does not contain disaggregates on gender, affiliation, or country.

Indicator C5 – Number of workshops/events at which research methods, preliminary results and findings are presented

WASHPaLS exceeded the Year 2 target of 5 events at which research methods, preliminary results and findings were presented through dissemination of findings from the literature reviews for each of the research streams. To date the project has presented at 17 events, 14 of which were completed in Year 2, including 5 webinars/online presentations and 9 in-person presentations. 4 events were organized or co-organized by WASHPaLS and WASHPaLS was invited to present at 10 events convened by third parties. 6 events focused on CLTS, 7 on MBS, and 2 on hygienic environments for IYC – these numbers sum to greater than 14, since some events covered more than one topic. With annual participation in conferences such as UNC's Water and Health, Stockholm World Water Week, and others, plus dissemination events tied to in-country implementation research, the project is on track to meet or exceed the life of project target of 30 events.

Indicator 1.1 – Number of technical assistance assignments and technical reports produced by WASHPaLS team

Responses to 3 Component 1 STTA work orders were approved in Year 2, falling short of the target of 5, and teeing up several reports to be delivered in Year 3. The Cambodia NOURISH impact evaluation will produce one report after endline data collection; the Kenya RAPID impact evaluation will produce a report for each of 3 rounds of data collection; the KIWASH midterm performance evaluation will

produce 1 final report, for a total of 5 anticipated reports. Only one additional work order is currently expected in Year 3, with one or two associated reports. Based on these projections, the project will complete a maximum of 11 TA assignments and reports, falling short of the target of 20. It is proposed to reduce the target accordingly or increase efforts to solicit additional Mission buy-in and work order requests.

Indicator 1.2 – Level of Mission satisfaction with the responsiveness and quality of WASHPaLS Technical Assistance

The level of Mission satisfaction will be measured upon completion of each Component 1 work order. The first will be sent to the designated point of contact at USAID/KEA upon completion of the KIWASH midterm performance evaluation, anticipated in Q2 of Year 3. A standardized questionnaire will be utilized to conduct a phone interview with the identified Mission point of contact, ranking project performance on a scale of 1 to 10. Questionnaires will be sent to USAID/E3 for the NOURISH IE and to USAID/KEA for the Kenya RAPID IE upon completion of those work orders, in Years 4 and 5, respectively.

Indicator 2.1 – Number of local partners actively participating in research activities designed and implemented by WASHPaLS

10 local partners were engaged in research activities in Year 2, 3 in each of the core research streams, plus one in the ICT for CLTS field research, and falling short of the target of 12 partners. Partners were categorized and show a mix of USAID local implementing partners or collaborating organizations, community-based or civil society organizations, private sector, and local government. Most partners were engaged in research design and data gathering, with two partners also expected to review findings and related reports. Additional partners may be identified in future years for dissemination of results and implementation of findings. However, the project may not identify an additional 18 partners to achieve the overall target of 28.

Indicator 2.2 – Number of peer-reviewed scientific publications resulting from USG support to research and implementation programs

The target of 1 manuscript submitted to a peer-reviewed journal was not achieved in Year 2, however 2 manuscripts are in draft form (detailing findings of the CLTS and MBS literature reviews) and are expected to be submitted in Year 3. In addition to manuscripts that may capture findings from Component 2 field research and Component 1 activities, at least an additional 4 manuscripts are anticipated from grants awarded to date and the project is on track to exceed the overall target of 4 manuscripts submitted.

Indicator 3.1 – Number of grants awarded to behavior change innovators

Three grants were awarded early in Year 2, meeting the target. A fourth grant package was sent to USAID for approval early in Year 3 and a 3rd solicitation is being developed with the intention to award 6 additional grants in Year 3. The project is on track to meet the overall target of 10 grants awarded.

Indicator 4.1 – Number of partnerships established or supported

WASHPaLS engaged in 3 new partnerships in Year 2, in addition to continuing the 6 partnerships supported in Year 1. New partnerships include financial support to Thrive to complete the Laos PDR Impact Evaluation on Use of Incentives and Pro-Poor Sanitation Outcomes (with additional funding from the World Bank and DFAT), and technical input to forums on rural sanitation hosted by UNICEF and the CLTS Knowledge Hub. This adds to ongoing technical support to Sanitation and Water for All, Global Handwashing Partnership, BabyWASH Coalition (now merged with the Clean, Fed & Nurtured Coalition), collaboration on dissemination of WASHPaLS learnings with the USAID/Water

Communications and Knowledge Management (CKM) project, and quarterly meetings with USAID's centrally-funded water mechanisms. To stay on target, WASHPaLS is expected to engage in an additional 5 partnerships in each of the remaining 3 years.

Review of Management Indicators

Table 8 summarizes WASHPaLS achievements on the management indicators. They are discussed below.

TABLE 8: MANAGEMENT INDICATOR RESULTS

N°	Management Indicator	Q1	Q2	Q3	Q4	Year 2	To Date
M1	Number of people trained through WASHPaLS Activities	0	2	5	18	25	25
M2	Number of USAID Missions supported by WASHPaLS	1	2	4	6	10	10
M3	Number of grant applications submitted in response to public solicitations	0	0	11	0	11	345
M4	Number of communications materials developed to share information and learning	10	7	6	6	29	42
M5	Number of formal consultations with Advisory Board	6	2	3	1	12	36

Indicator M1 – Number of people trained through WASHPaLS Activities

The 25 people captured under this indicator were generated through trainings of enumerators to support field research, of which eight participants were male and 17 were female. Enumerators were trained in Bangladesh and Ethiopia by WASHPaLS grantees and in Cambodia and Ghana by the core research teams.

Indicator M2 – Number of USAID Missions supported by WASHPaLS

In Year 2, WASHPaLS supported 11 USAID Missions through 14 activities, including core research activities (8), grants (3), and Component I technical assistance (2). USAID Missions supported include: Bangladesh, Cambodia, Ethiopia, Ghana, India, Kenya, Liberia, Nepal, Nigeria, and Zambia. Mission Concurrence was received for all activities. Additionally, WASHPaLS co-funded the endline data collection for an RCT in Lao in coordination with the World Bank, with concurrence from the Regional Development Mission for Asia (RDMA).

Indicator M3 – Number of grant applications submitted in response to public solicitations

Eleven expressions of interest were received in Year 2 to the second REOI, of which 4 were invited to submit a full application, and one was selected for award.

Indicator M4 – Number of communications materials developed to share information and learning

WASHPaLS developed 29 communications materials in Year 2, including the 4 desk reviews, 8 presentations (including 4 webinars), and 8 briefing notes. 11 materials were developed specifically for sharing with the Advisory Board, 13 were disseminated publicly, and 5 were shared only at a specific conference or other event.

Indicator M5 – Number of formal consultations with Advisory Board

The Advisory Board and its members were consulted formally 12 times in Year 2, six of which were consultations of the full board (two Board meetings and four electronic requests for input on specific products) and six were consultations with individual members.

5.0 PROJECT MANAGEMENT

As the technical focus of activities in Year 2 turned from desk and literature reviews to field implementation, including for Component 1 buy-in activities and management of the small grants, there was a significant increase in programmatic implementation that required adjustments to the project management team (e.g., adding staff, redistributing roles and responsibilities) to keep pace with administrative and technical needs. Project management highlights from Year 2 include the following:

Staffing

- In May, WASHPaLS on-boarded a full-time Operations Specialist to support financial oversight, operations, and administrative management of WASHPaLS, increasing the number of full-time project staff from three to four. In July, the Operations and Finance Manager left the project and was replaced by the former Home Office Deputy Project Manager; the position was renamed Technical Operations and Finance Manager to better reflect the additional responsibilities, for example, the TOFM serves as the Activity Manager for the Kenya RAPID impact evaluation.
- Subcontractors also have increased the number of technical staff supporting their research activities; while full-time staff of their respective company, they are all part-time to the project.
- To compensate for the departure of one of the three Research Advisors, Francis Ngunjiri, Aquaya contracted the services of Independent Consultant, Andy Robinson, to provide on-call technical expertise on the on-going CLTS research design. This has permitted Joe Brown to focus additional time in support of the Safe Play Space research. Mimi Jenkins continues to support the project writ large, but with a focus on the MBS research.

Planning

- WASHPaLS maintains a productive and collaborative working relationship with the USAID technical leads through bi-weekly project meetings to discuss overall progress, as well as through periodic technical meetings that permit a deeper dive discussion of Component 2 and 3 activities. WASHPaLS prepares and distributes meeting notes.
- In February, WASHPaLS held a Mid-Year Team Planning Meeting at Tetra Tech's office in Arlington, Virginia. WASHPaLS full- and part-time staff, the US-based Research Advisors and representatives from USAID attended the meeting, which allowed for extremely valuable face-to-face, in-depth technical discussions. During this same week, WASHPaLS hosted a meeting of the Advisory Board.
- In July, WASHPaLS held the Year 3 Annual Work Planning Meeting at Tetra Tech's office in Arlington, Virginia. WASHPaLS full- and part-time staff, the US-based Research Advisors and representatives from USAID participated. The major outcome of the meeting was general agreement on the overarching direction of Year 3 activities.

Reporting

- WASHPaLS kept pace with the timely submittal of Year 2 contract deliverables, including: Year 2 Work Plan, Year 1 Annual Report, quarterly reports, accruals report, a revised Monitoring and Evaluation (M&E) Plan (June) and a draft Gender Integration Plan (September).
- A list of all deliverables, including technical deliverables (e.g., Inception reports) submitted in Year 2 is provided in Appendix 2.

APPENDIX I: STATUS OF PLANNED YEAR 2 ACTIVITIES

Year 2 Planned Activities		Status
WASHPALS Advisory Board		
• Convene quarterly Board meetings • Engage individual members on an ad hoc basis		• Convened formal board meetings in Q1 and Q2. • Solicited feedback from Board on literature reviews in Q2 and Q3. • Individual board members engaged across all research streams throughout the year.
Component 1: Provide Short-Term Technical Assistance to Missions		
• Respond to Mission SOWs, as requested • Respond to request to support NOURISH impact evaluation • Prepare for taking over management of NOURISH impact evaluation		• Responded to all requests received and including the NOURISH impact evaluation, RAPID impact evaluation, and KIWASH performance evaluation. • Took over management of NOURISH IE as of Oct 1, 2018 and began implementation of RAPID and KIWASH.
Component 2: Develop and Test New and Innovative Approaches and Tools for Implementation of Interventions		
• Finalize WASHPaLS Engagement Strategy • Develop detailed country-specific Engagement Strategies for countries in which field research is implemented • Engage Research Working Group		• Engagement Strategy was finalized, and inception reports include outline for country-specific strategies. • Research Working Group actively involved in research design and analysis.
Task 2.1: Assess Mechanisms for the Delivery of Sanitation Services at Scale – focus on behaviors (primarily, but not limited to CLTS)		
2.1.1: CLTS desk review		
• Draft journal publication • Revise and submit journal publication		• 2.1.1 desk review was finalized. • Draft of journal manuscript submitted to USAID for review.
2.1.2: Implementation Research on CLTS		
• Revise research ideas based on feedback from collaborators and planning meeting/SVVVV • Select countries for research with USAID (up to three) • Obtain buy-in from USAID Missions • Identify ongoing country programs for field-based implementation research • Scoping trips to study countries (up to three) • Develop plan for field-based implementation research on CLTS • Develop and submit research protocols following TOCOR approval of research plan • Prepare, submit, and receive ethical approvals as needed • Coordination with implementing partner and local government • Pilot any survey instruments and conduct formative research as needed		• Two themes selected based on feedback: performance envelope and targeted subsidies. • Countries selected for research include: Cambodia, Zambia, Ghana, Liberia. • USAID Mission concurrence obtained in Cambodia, Zambia, Ghana, and Liberia. • Programs and partners identified in: Cambodia (CRSHIP/Plan), Zambia (Ministry of Water Development, Sanitation and Environmental Protection), Ghana (Global Communities, UNICEF), and Liberia (Global Communities). • Inception report approved for Performance Envelope research activities. • WIRB approval received for Performance Envelope research activities, local IRB approval received in Cambodia. • Coordination ongoing with all partners listed above.

Year 2 Planned Activities		Status
- Collect data, in coordination with local implementing partner(s) - Conduct analysis		Formative research and piloting of instruments for Targeted Subsidies research began in September 2018.
2.1.3: ICT to Aid the effectiveness of CLTS Implementation		
- Finalize Landscape assessment of existing CLTS ICT solutions - Study Zambia's mobile-to-web (M2W) platform as a case study for effective use of CLTS monitoring at scale		- Landscape assessment finalized. - Scoping trip for M2W assessment completed. - Subcontract with local partner Akros established. - Data collection activities launched but placed on hold pending concurrence from UNICEF Zambia.
Task 2.2: Assess Mechanisms for the Delivery of Sanitation Services at Scale		
2.2.1: MBS desk review		
Finalize desk review		Desk review finalized.
2.2.2: Implementation Research on MBS		
- Defined the research questions and countries - Develop plan for field-based research on sanitation marketing including research protocols - Scoping trip to countries, consult local stakeholders - Prepare, submit, and receive ethical approvals as needed - Collect data/ conduct interviews on viability of sanitation enterprises with 1-3 mature, 2 nascent MBS programs - Develop economic model(s) for change in market rules and test with data from up to 3 MBS programs - Analyze data		- Inception report for Research Question 1 approved on 27th March 2018; an Inception report for Research Question 2 was not submitted at the direction of USAID after the approach, progress to date, and a demonstration of the first decision support tool was presented at the Mid-Year Planning Meeting in March 2018. - Completed retrospective data collection and analyses on viability of sanitation enterprises with support from two mature and one nascent MBS program. - Prepared draft decision support tools for three market rules (two geographies each) and accompanying user guides. - Prepared a menu of additional activities for Year 3 at the direction of USAID based on a discussion at the Annual Work Planning Meeting in August 2018.
Task 2.3: Effectiveness of Improved Hygiene Environments for Babies and Young Children		
2.3.1 Literature Review		
- Develop a plan for journal publication - Write and submit article for peer review journal - Develop short learning note for implementers		Learning note for implementers drafted.
2.3.2 Field-based research		
- Development of the detailed experimental design, including preliminary identification of interventions and existing USAID programs onto which the interventions can be "piggybacked" - Support USAID for country and site selection - Country visit(s) to potential implementing partners and sites - Obtain USAID Mission approvals for research activity - Liaise with other researchers and implementers - Identify / compete for in-country research vendor for data collection - Identify in-country lab partner to facilitate collection (and analysis) of lab samples - Conduct pre-test of survey instrument and 'concept test' deployment of behavioral and product-based interventions,		- Research Plan completed. - Inception report (detailed design) completed. - Research Protocol Phases 1 and 2 (for scientific and ethical review) completed and scientific approval. - Supported country and site selection. 3 country visits to potential implementing partners and sites completed. - USAID approvals obtained for research activity . - Intensive liaising with other researchers and implementers (Steve Luby/WASH-B, Jean Humphries and Dadi Fundira/SHINE, Christine George, Brie Reed, Francis Nguni, Robert Dreibelbis, others). - Decision to have FHI360 manage research rather than hire a vendor, Field Coordinator hired.

Year 2 Planned Activities		Status
- refine experimental design, research protocol and survey tool accordingly • Apply for and obtain ethical approval for protocol in US • Apply for and obtain ethical approval for protocol in host country • Assure country buy-in from key government stakeholders as needed (beyond IRB)	• In-country lab partner identified (but in the end, research phase requiring stool sampling eliminated). • US ethical approval submitted and pending. • Ethiopia-based IRB/ethical approval under preparation. • Efforts to gain key government buy-in just initiated. • Implementation partner identified and MoU in process. • Other activities will be addressed in Year 3 when decisions of field research are finalized.	
• Intensive liaison and coordination with implementing partner • Train research team and validate lab methods • Train implementation partner on study protocol and promotional aspects of intervention • Random allocation of households to treatment and “control” arms • Initiate baseline survey and samples collection • Installation/distribution of playmats/play space		
Component 3: Small Grants Program on Hygiene Behavior Change		
• Award HBC grants • HBC grants implement activities • Prepare and Release second RFA on strategies for safe management of productive animal feces in households • Review applications, REC meeting, negotiations, award grant for second RFA • Implementation of grant (s) from second RFA • Prepare and Release third RFA	• Awarded 3 HBC grants. • Second RFA released. • REC reviewed applications and selected one grantee. • Grant review process underway. • Preparation initiated for third RFA, shortlist of topics but decision and release in Y3.	
Component 4: Support USAID’s Participation in Strategic Partnerships		
Partnerships • Provide TA to GHP • SWA Consultancies • Prepare report detailing the governance challenges currently facing SWA • Participate in SWA Steering Committee Meeting in Mozambique to present recommendations for improved governance structure • Outline for new governance document and governance manual	• TA provided to GHP. • TA provided to CFN. • SWA Consultancies • Prepared report detailing the governance challenges currently facing SWA. • Participated in SWA Steering Committee Meeting in Mozambique to present recommendations for improved governance structure. • Outlined for new governance document and governance manual.	
Events • Attend Stockholm World Water Week • Attend SuSanA Meetings (assumes two meetings per year) • Attend UNC conference • Present at CORE group fall meeting	Events • Attended Stockholm World Water Week. • Attended UNC conference. • Participated in CLTS Hub meetings.	

APPENDIX 2: SUMMARY OF YEAR 2 DELIVERABLES AND REPORTS

Deliverable	Date Approved	Notes
Hygienic Environments Literature Review	October 11, 2017	Not a contract deliverable
Year 2 (FY 18) Annual Work Plan	November 3, 2017	
Annual Report (Y1) (inc. Foreign Assistance Reporting)	November 22, 2018	Includes Y1Q4 quarterly report and Annual standalone report summarizing partnership activities, results and achievements
Award of a minimum of 10 grants under the small grants program (Round 1)	January 4, 2018	3 grants awarded in Y2
Quarterly Reports (Including Quarterly Financial Report)	January 23, 2018 May 10, 2018 September 21, 2018	Q1 Q2 Q3
Plan for field-based research on sanitation marketing	March 27, 2018	Task 2.2.2 Inception Report - Retrospective
Report on analysis of national level CLTS implementation	April 13, 2018	Task 2.1.1 Desk Review
Report on desk-based analysis of sanitation marketing	May 14, 2018	Task 2.2.1 Desk Review
Desk review of ICT tools and approaches for CLTS	July 2, 2018	Not a contract deliverable
Plan for field-based research on CLTS	July 31, 2018	Task 2.1.2 Inception Report – Performance envelope
Report detailing design of the implementation research study methodology	September 14, 2018	Task 2.3.2 Inception Report
Annual Work Plan (Y3)	October 3, 2018	Draft submitted 9/5/2018
Gender Integration Plan	Pending	Draft submitted 9/28/2018

APPENDIX 3: YEAR 2 DISAGGREGATED RESULTS

This annex contains disaggregated results for performance indicators with non-zero results in Year 2. Disaggregate tables provided below for the first time will serve as a template for future reporting. Results submitted via Google Forms were processed using linked Google Sheets, which enables automatic updating of all results tables. As each of the 10 performance indicators specifies multiple disaggregates, the automatic generation of these table and standardized formatting will save significant time for future reporting. Table A1 provides an overview of disaggregates for each indicator as specified in the MEP.

Table A1: Performance Indicator Disaggregates and Data Collection Method and Frequency

N°	Performance Indicator [and Type]	Disaggregation	Data Collection Method (Frequency)
C1	Number of Missions, implementing partners, local governments and donors applying WASHPaLS approaches/tools (Custom) [OUTCOME]	Type of guidance ¹ ; Type of Institution ² ; Topic area	Google Forms/KIs and Internal Outcome Evaluation Reports (Annually)
C2	Number of policies, laws, agreements, action plans, regulations, strategies, or investment agreements (public or private) influenced by WASHPaLS (Custom) [OUTCOME]	Type of institution; Type of guidance; Topic area; Stage (proposed, adopted)	Google Forms and WASHPaLS Activity Reports (Annually)
C3	Number of people with increased knowledge of WASH approaches/tools through exposure to WASHPaLS events, communications materials and products (Custom) [OUTCOME]	Country; Type of exposure (event, knowledge product); Sex (female, male, undisclosed); Topic area; Affiliated institution	Web analytics, WASHPaLS Activity Reports, attendance records, post-event follow-up surveys (Quarterly) verified by Sample survey of target populations (Annually)
C5	Number of workshops/events at which research methods, preliminary results and findings are presented (Custom) [OUTPUT]	Project role (organized, co-organized, presented); Topic area; Number of people in attendance by gender (reported under C3)	Google Forms and WASHPaLS Activity Reports (Quarterly)

¹ Types of Guidance include (for indicators C1 and C2) policy, procedure, strategy, law, agreement, action plan, regulation, investment agreement (public/private), and (for C1 only) training materials, solicitation design, and others.

² Types of Institutions include USAID, other donor, USAID implementing partner, local government (national/subnational), community-based or civil society organization, private sector, research institution, and others.

N°	Performance Indicator [and Type]	Disaggregation	Data Collection Method (Frequency)
1.1	Number of technical assistance assignments and technical reports produced by WASHPaLS team (Custom) [OUTPUT]	Type of TA (TBD) ³ ; Recipient; Country; Topic area; Status (ongoing, complete)	Google Forms and Technical Assistance Tracker (Semi-annually)
1.2	Level of Mission satisfaction with the responsiveness and quality of WASHPaLS Technical Assistance (Custom) [OUTPUT]	Topic area; Type of TA; Country	Post-STTA client satisfaction survey (Semi-annually)
2.1	Number of local partners actively participating in research activities designed and implemented by WASHPaLS (Custom) [OUTPUT]	Topic area; Type of local partner ⁴ ; Type of engagement ⁵ ; Country	Google Forms and WASHPaLS Annual Reports (Annually)
2.2	Number of peer-reviewed scientific publications resulting from USG support to research and implementation programs (STIR-12) [OUTPUT]	Status (submitted, published/disseminated); Topic area	Google Forms and WASHPaLS Annual Reports (Annually)
3.1	Number of grants awarded to behavior change innovators (Custom) [OUTPUT]	Value of grant ⁶ ; Topic area; Country; Status	Google Forms and WASHPaLS Activity Reports (Semi-annually)
4.1	Number of partnerships established or supported (Custom) [OUTPUT]	Partnering institution(s); Level (global, national, local); Status of partnership (established, supported)	Google Forms and WASHPaLS Activity Reports, MOUs (Semi-annually)

³ Types of technical assistance include impact evaluation, program design, and others. This list will be developed as Component I TA assignment are received in Years 2-4, and may include staff, skills training, research, support administration, management, representation, publicity, policy development, or capacity building.

⁴ Types of local partners include USAID local implementing partner/collaborating organization, local government (national/subnational), research institution, private sector, community-based or civil society organization. This list mirrors types of institutions while excluding USAID and other donors.

⁵ Types of engagement by local partners include research design, data gathering, reporting/dissemination of findings, or implementing activities based on findings

⁶ Proposed grant tiers for disaggregation: 0 to \$100,000 USD; \$100,000 to \$250,000; and greater than \$250,000 USD.

INDICATOR C3: NUMBER OF PEOPLE WITH INCREASED KNOWLEDGE OF WASH APPROACHES/TOOLS THROUGH EXPOSURE TO WASHPaLS EVENTS, COMMUNICATIONS MATERIALS AND PRODUCTS (CUSTOM) [OUTCOME]

INDICATOR C3	Q1	Q2	Q3	Q4	YEAR	TO DATE
Total Year 2 Results	0	10	4	7	21	21
C3a – MODALITY	Q1	Q2	Q3	Q4	YEAR	TO DATE
Event	0	10	4	7	21	21
Product	0	0	0	0	0	0
SUBTOTAL	0	10	4	7	21	21
C3c – AFFILIATION	Q1	Q2	Q3	Q4	YEAR	TO DATE
USAID	0	1	0	1	2	4
Other Donor	0	0	0	2	2	2
USAID Implementing Partner	0	4	2	2	8	8
Local government (national/subnational)	0	1	0	1	2	2
Community-based or civil society organization	0	0	1	0	1	1
Private sector	0	0	0	0	0	0
Research institution	0	1	0	0	1	1
Independent consultant	0	1	1	0	2	2
Other	0	2	0	1	3	2
SUBTOTAL	0	10	4	7	21	21
C3d – GENDER	Q1	Q2	Q3	Q4	YEAR	TO DATE
Male	0	9	1	3	13	13
Female	0	1	3	4	8	8
Undisclosed	0	0	0	0	0	0
SUBTOTAL	0	10	4	7	21	21
C3e – COUNTRY OF ORIGIN	Q1	Q2	Q3	Q4	YEAR	TO DATE
Ghana	0	2	0	0	2	2
India	0	1	0	1	2	2
Kenya	0	0	1	0	1	1
Madagascar	0	1	0	0	1	1
Pakistan	0	1	0	0	1	1
Somalia	0	1	0	0	1	1
Togo	0	0	1	0	1	1
Uganda	0	2	0	1	3	3
USA	0	2	2	5	9	9
SUBTOTAL	0	10	4	7	21	21

INDICATOR C5: NUMBER OF WORKSHOPS/EVENTS AT WHICH RESEARCH METHODS, PRELIMINARY RESULTS, AND FINDINGS ARE PRESENTED [OUTPUT]

INDICATOR C5	Q1	Q2	Q3	Q4	YEAR	TO DATE
Total Year 2 Results	3	2	6	3	14	17
C5a – WASHPALS PARTICIPATION	Q1	Q2	Q3	Q4	YEAR	TO DATE
Convened	1	0	1	2	4	4
Presented	2	2	5	1	10	13
SUBTOTAL	3	2	6	3	14	17
C5b – TOPIC AREAS	Q1	Q2	Q3	Q4	YEAR	TO DATE
CLTS	2	1	2	1	6	7
Sanitation Marketing	1	1	3	2	7	8
Pathways of fecal contamination in infants	1	0	1	0	2	4
SUBTOTAL	4	2	6	3	15	16

INDICATOR I.1: NUMBER OF TECHNICAL ASSISTANCE ASSIGNMENTS AND TECHNICAL REPORTS PRODUCED BY WASHPALS TEAM [OUTPUT]

INDICATOR I.1	Q1	Q2	Q3	Q4	YEAR	TO DATE
Total Year 2 Results	0	0	2	1	3	3
I.1a – TYPE OF ASSISTANCE	Q1	Q2	Q3	Q4	YEAR	TO DATE
Technical Assistance	0	0	2	1	3	3
Report	0	0	0	0	0	0
SUBTOTAL	0	0	2	1	3	3
I.1b – RECIPIENT	Q1	Q2	Q3	Q4	YEAR	TO DATE
USAID/E3	0	0	1	0	1	1
USAID/KEA	0	0	1	1	2	2
SUBTOTAL	0	0	2	1	3	3
I.1c – COUNTRY	Q1	Q2	Q3	Q4	YEAR	TO DATE
Cambodia	0	0	1	0	1	1
Kenya	0	0	1	1	2	2
SUBTOTAL	0	0	2	1	3	3

INDICATOR 2.1: NUMBER OF LOCAL PARTNERS ACTIVELY PARTICIPATING IN RESEARCH ACTIVITIES DESIGNED AND IMPLEMENTED BY WASHPaLS [OUTPUT]

INDICATOR 2.1	Q1	Q2	Q3	Q4	YEAR	TO DATE
Total Year 2 Results	0	6	2	2	10	10
2.1a – RESEARCH ACTIVITY	Q1	Q2	Q3	Q4	YEAR	TO DATE
CLTS (2.1.2)	0	1	2	0	3	3
ICT in CLTS (2.1.3)	0	0	0	1	1	1
Market-based Sanitation (2.2.2)	0	3	0	0	3	3
Clean Play Spaces (2.3)	0	2	0	1	3	3
SUBTOTAL	0	6	2	2	10	10
2.1b – LOCAL PARTNER	Q1	Q2	Q3	Q4	YEAR	TO DATE
USAID local implementing partner or collaborating organization	0	2	0	1	3	3
Community-based or civil society organization	0	3	2	0	5	5
Private sector	0	0	0	1	1	1
Local government (national/subnational)	0	1	0	0	1	1
SUBTOTAL	0	6	2	2	10	10
2.1c – ENGAGEMENT LEVEL	Q1	Q2	Q3	Q4	YEAR	TO DATE
Research Design	0	3	0	1	4	4
Gathering Data (Primary or Secondary)	0	4	2	1	7	7
Review of Findings or Reports	0	2	0	0	2	2
Other	0	0	0	0	0	0
SUBTOTAL	0	9	2	2	13	13
2.1d – COUNTRY	Q1	Q2	Q3	Q4	YEAR	TO DATE
Zambia	0	1	0	1	2	2
India	0	1	0	0	1	1
Cambodia	0	1	1	0	2	2
Nigeria	0	1	0	0	1	1
Ghana	0	0	1	0	1	1
Liberia	0	0	1	0	1	1
Ethiopia	0	2	0	1	3	3
SUBTOTAL	0	6	3	2	11	11

INDICATOR 3.1: NUMBER OF GRANTS AWARDED TO BEHAVIOR CHANGE INNOVATORS

INDICATOR 3.1	Q1	Q2	Q3	Q4	YEAR	TO DATE
Total Year 2 Results	1	2	0	0	3	3
3.1a – TOPIC AREA	Q1	Q2	Q3	Q4	YEAR	TO DATE
WASH-related behavior change	0	2	0	0	2	2
Gender in WASH	1	0	0	0	1	1
SUBTOTAL	1	2	0	0	3	3
3.1b – COUNTRY	Q1	Q2	Q3	Q4	YEAR	TO DATE
Nepal	1	0	0	0	1	1
Ethiopia	0	1	0	0	1	1
Bangladesh	0	1	0	0	1	1
SUBTOTAL	1	2	0	0	3	3
3.1c – GRANT VALUE (USD)	Q1	Q2	Q3	Q4	YEAR	TO DATE
<50,000	0	0	0	0	0	0
50,000–100,000	1	1	0	0	2	2
100,001–300,000	0	1	0	0	1	1
>300,000	0	0	0	0	0	0
SUBTOTAL	1	2	0	0	3	3

INDICATOR 4.1: NUMBER OF PARTNERSHIPS ESTABLISHED OR SUPPORTED [OUTPUT]

INDICATOR 4.1	Q1	Q2	Q3	Q4	YEAR	TO DATE
Total Year 2 Results	0	0	2	1	3	9
4.1a – TYPE OF PARTNER	Q1	Q2	Q3	Q4	YEAR	TO DATE
Donor	0	0	0	0	0	0
Civil Society	0	0	0	0	0	0
Implementing Partner	0	0	0	1	1	2
Private Sector	0	0	0	0	0	0
Other	0	0	2	0	2	7
SUBTOTAL	0	0	2	1	3	9
4.1b – LEVEL	Q1	Q2	Q3	Q4	YEAR	TO DATE
Global	0	0	2	0	2	8
National	0	0	0	1	1	1
SUBTOTAL	0	0	2	1	3	9



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