USAID
FROM THE AMERICAN PEOPLE

EVALUATION

PERFORMANCE EVALUATION OF THE USAID/BANGLADESH WASHPLUS ACTIVITY

MARCH 2016

This publication was produced at the request of the United States Agency for International Development. It was prepared independently by Kathleen Webb, M.A. Sekendar, Shireen Akhter, Muhammad Maksudul Hannan, and Nathan Cutler.

PERFORMANCE EVALUATION OF THE USAID/BANGLADESH WASHPLUS ACTIVITY

MARCH 2016

Performance Evaluation Task Order: AID-388-TO-15-00002

WASHplus Cooperative Agreement Number: AID-OAA-A-10-00040

Photo, page 1: Tube well in Kalapara (K. Webb, 2016)

TABLE OF CONTENTS

FIGURES & TABLES

PHOTOS

ACRONYMS

ADP	Annual Development Plan
AVAS	Association of Voluntary Actions for Society
BCC	Behavior Change Communication
CAPs	Community Action Plans
CATs	Community Approach to Total Sanitation
CDCS	Country Development Cooperation Strategy
CDF	Community Development Forum
CLTS	Community Led Total Sanitation
COAST	Coastal Association for Social Transformation
CSA	Community Situational Analysis
DAM	Dhaka Ahsania Mission
DORP	Development Organization of the Rural Poor
DPHE	Department of Public Health Engineering
DR	Document Review
EPI	Essential Program for Immunization
FGD	Focus Group Discussion
FTF	Feed the Future
FY	Fiscal Year
GHI	Global Health Initiative
GIs	Group Interviews
GIS	Geographic Information Systems
GOB	Government of Bangladesh
GPS	Global Positioning Systems
ICDDR,B	International Center For Diarrheal Disease Research, Bangladesh
IEC	Information, Education, and Communication
IPs	Implementing Partners
IR	Intermediate Result
IRC	Innovation Research Consultancy
IYCF	Infant and Young Child Feeding
JMP	Joint Monitoring Program
KIIs	Key Informant Interviews
LGSP	Local Government Support Project
M2M	Mother-to-Mother
MDG	Millennium Development Goals
MIS	Management Information Systems
MOPHE	Ministry of Public Health Engineering
MOU	Memoranda of Understanding
NGOs	Non-Governmental Organizations
OD	Open Defecation
ODF	Open Defecation Free
PE	Performance Evaluation
PNGO	Partner Non-Governmental Organizations
SAP	South Asia Partnership

SDA	Small Doable Actions
SDP	Bangladesh Sector Development Plan
SI	Social Impact
SOW	Scope of Work
SPRING	Strengthening Partnerships, Results and Innovation in Nutrition Globally
SUB-IR	Sub-Intermediate Results
UNICEF	United Nations Children Fund
UP	Union Parishad
USAID	United States Agency for International Development
USG	United States Government
WAB	WaterAid Bangladesh
WASH	Water, Sanitation, and Hygiene
WHO	World Health Organization
WWC	Ward Water and Sanitation Committees

EXECUTIVE SUMMARY

PROJECT BACKGROUND

The water, sanitation, and hygiene (WASH) situation in the southwestern region of Bangladesh is particularly challenging given the prevalence of flooding, water and soil salinity, river erosion, and cyclones. The USAID/Bangladesh WASHplus Activity ("WASHplus") addresses access, practices, and health outcomes related to WASH. Implemented between March 2013 to September 2015 in Bangladesh by FHI 360 and WAB Bangladesh (WAB), WASHplus aimed to address the lack of access to safe drinking water, improved sanitation systems, and basic hygiene education in the southwestern region. WASHplus was implemented in four remote upazilas,[1] Daulatkhan and Char Fasson in the District of Bhola, and Kalapara and Galachipa in the District of Patuakhali.[2] These upazilas were targeted given their poverty status, number of people without access to safe drinking water, number of people without access to improved sanitation facilities, remoteness of the region, prevalence of water-borne illnesses, and lack of other major WASH actors.[3] The objectives of the WASHplus Activity were as follows:

Objective 1: To reach poor and marginalized communities with sustainable safe water, sanitation, and with the promotion of hygiene by using locally appropriate technologies and approaches.

Objective 2: To build community and local government capacity in operating and maintaining water and sanitation facilities, demand increased allocation and pro-poor targeting of national and local government funds, and community contributions to ensure sustainability of activity interventions and impact.

Cross-Cutting Issue: Strengthen programming guidance for coordinated WASHplus-nutrition programming in Bangladesh.

EVALUATION PURPOSE

Social Impact (SI) was contracted by USAID/Bangladesh to conduct an independent final performance evaluation (PE) of the WASHplus Activity. The primary purpose of this PE was to determine if WASHplus activities met the stated objectives, to identify best practices, lessons learned, strengths, and weaknesses, and to provide evidence-based findings, recommendations, and conclusions.

METHODOLOGY

Overall, the PE included: (1) a comprehensive desk review; (2) a population-based survey of 1453 households; (3) in-depth semi-structured key informant interviews (KIIs) and group interviews (GIs); (4) focus group discussions (FGDs); (5) direct observation of project sites; and (6) phone surveys with Union Parishad (UP) officials for each of the 22 UPs where WASHplus was implemented. Data collection tools are included in Annex C. Innovation Research Consultancy

[1] An Upazila is an administrative geographical region in Bangladesh. They are also known as sub-districts.
[2] A fifth Upazila in the Satkhira district was added in FY2015, and is not included in the scope of this evaluation.[2]
[3] 'Actor' refers to local and international NGOs and stakeholders, as well as the DPHE.

(IRC), SI's in-country data collection partner, conducted the household survey and UP phone surveys. The quantitative survey specialist and data analyst led the household survey piloting and enumerator training. The team leader and two technical/sectoral specialists conducted qualitative interviews with project stakeholders.

LIMITATIONS

The evaluation team was not able to obtain an up to date sample frame of eligible households at the start of data collection; thus, a random-walk methodology was employed for sampling at the household level. The potential for recall or desirability bias exists for questions where the respondent had to report their own behaviors or that of other household members. Given that geospatial data on WASHplus-installed hardware was made available to SI only after completion of field work despite earlier requests, the qualitative team relied on the PNGOs to obtain information on the location of hardware in order to complete site visits during fieldwork. In a small number of cases, contact persons from UPs were unreachable or data were not available for some UP budgets. The terrain of the project villages was a challenge for the evaluation team and data collection firm, though all planned fieldwork was successfully completed.

FINDINGS AND CONCLUSIONS

Q1: To what extent was the WASHplus Activity successful in achieving its objective, intermediate results, and sub intermediate results?

WASHplus developed 17 indicators to track project achievements. Of these indicators, 10 met their targets, four did not, and one (#14) is disaggregated by union rather than reported as an overall figure. Two indicators (#2 and #3) were not within the scope of this evaluation. A full summary of the WASHplus project achievements against targets is provided in Table 4.

Drinking water: WASHplus installed or promoted the installation of 670 deep hand tube wells in the four upazilas and an estimated 94,200 people gained access to an improved water source, exceeding the target of 65,771. The overall proportion of households in the WASHplus targeted unions using an improved drinking water source significantly increased from 98.9% at baseline to 99.8% at end-line, meeting the target of 99.3%.

Sanitation facilities: WASHplus activities led to the installation of an estimated 30,929 latrines, and an estimated 154,729 people gained access to improved sanitation facilities, exceeding the target of 88,358. The proportion of households using an improved latrine significantly increased from 9.5% to 20%, but fell shy of the project target of 25%.[4] The practice of open defecation (OD) decreased in all project areas. A total of 653 communities were certified as open defecation free (ODF), exceeding the project target of 512.

Handwashing devices: WASHplus activities led to the installation of an estimated 41,114 household handwashing devices, exceeding the target of 39,726. The proportion of households

[4] Pit latrines with slabs are considered by JMP as improved facilities but were not classified as such in the baseline report. Since a large proportion of the population uses these facilities, if they were to be reclassified as improved sources, a much greater share of the population would be reported to use improved sources. In order to report consistently, we have maintained the same classification as baseline.

with a functional handwashing point with soap and water significantly increased from 5% to 16.3%, but did not meet the target of 25%.

Disposal of child feces: Safe disposal of child feces increased significantly overall from 47% to 54% but did not meet the project target of 75.5%.

Diarrheal illness among children: Diarrheal illness among children under five years of age in the two weeks prior to the survey significantly declined from 19.6% to 15.7% across the four upazilas relative to baseline, but did not meet the project target of 14.5%. Prevalence of diarrheal illness between those with improved and unimproved water and sanitation sources were not statistically significant.

Management of WASH structures: Between baseline and end-line, the proportion of households using their own money to maintain their main water source rose substantially from 11% to 77% and the proportion of households who have reportedly maintained or repaired their latrines since installation rose from 33% to 45%.

UP resource allocation for WASH: UPs are responsible for administration of the wards and are tasked with development of infrastructure facilities and services including WASH services. Overall, UP resources for WASH activities increased dramatically in absolute terms during WASHplus implementation. Across all 22 unions, the amount of funding in 2013-14 represented an approximately doubling of financial resources allocated for WASH, compared to 2012-13. While funding levels decreased slightly between 2013-14 and 2014-15, the 2014-15 resources still represented an approximate doubling relative to 2012-2013. The percent of WASHplus unions with WASH plans in place also increased substantially from 32% in 2012-2013 to 100% in 2014-2015. These changes have the potential to positively impact sustainability of WASHplus activities, as local resources and capacity are generated for planning and implementing WASH interventions.

Q2. Which institutional capacities, systems and linkages and which household practices and behaviors, are likely to be sustainable? Are the sustainability plans for maintenance, repair, and security of current infrastructure improvements (both water points and latrines) adequate to ensure activity success? To what extent have behavior change approaches been integrated into NGO and government practice?

Installation of WASH infrastructure reduced the burden faced by local governments in meeting the public demand for infrastructure. However, some UPs still reported financial constraints in meeting the WASH needs of the public. Additionally, although a handover of WASHplus occurred in March 2015, WAB confirms that the WASHplus strategy has not yet been integrated with the local or national WASH strategy and no major changes in government policy related to WASH were identified in the evaluation. Thus, handover of the maintenance, repair, and security of current infrastructure is unclear. The main question that remains is the continuation of behavior change given that the PNGOs have begun to end their activities. This has implications on the work of CDFs and Mother Groups who stated through interviews their willingness to continue their activities, but the difficulty in carrying out the extensive home visits expected of a behavior change communication (BCC) project.

Q3. How successfully were the strategies to integrate WASH and nutrition programming executed? What barriers and what enablers were found related to the integration of WASH and nutrition programming?

There are limitations in assessing the integration of WASH and nutrition programming as the WASHplus strategy did not specify certain indicators to measure integration. Integration was broadly defined as overlaying WASHplus activities in SPRING and SHIKHA project upazilas and promoting WASH behaviors within SPRING and SHIKHA's nutrition programming. Caution should also be used in interpreting these findings given the shorter duration of the WASHplus-nutrition integration and the fact that nutrition activities were still continuing during the end-line survey. During qualitative interviews, PNGOs revealed that they were not able to identify the links between WASH and nutrition, child growth and development, and they also reported not receiving adequate nutrition training. Even though the strategy was to integrate WASH activities into SPRING and SHIKHA's nutrition programs, responsibility was placed on PNGOs to facilitate this integration, and thus is equally important for them to have been adequately trained.

Q4. Are design and implementation of the gender strategies considered adequate and appropriate? How did (and which) activity interventions facilitate and/or inhibit equitable participation of men, women, boys and girls?

The desk review revealed that there was no explicit mention of a gender strategy at the onset of the project, i.e. using validated gender analysis tools to understand the socially constructed roles of men and women, gender needs assessment, or disaggregation of the control of resources and decision making. This poses a challenge in assessing the design and implementation of a gender strategy. A Community Situational Analysis (CSA) conducted prior to project implementation encouraged male and female participation and WAB reported in qualitative interviews that CSR findings fed into understanding the needs of women and female-headed households. However, project documents do not clearly state how this was done. The baseline report also explored some gender issues related to WASH, which do not appear to have factored into program planning. Mother Groups, resembling the mother-to-mother (M2M) approach taken by other relevant actors, was a highlighted focus of the program as it allowed women a safe arena to discuss and learn about WASH behaviors. Behavior change information was disseminated to men through culturally appropriate tea stall sessions. However, women beneficiaries stated through qualitative interviews that ensuring the participation of men in volunteer activities was a challenge.

Q5. What are the best practices and lessons learned from WASHplus that could inform the design of similar activities in Bangladesh?

There are several best practices and lessons learned from WASHplus. It is best practice to work with UPs to support selection of tube well sites and local entrepreneurs, and to work with local and trusted PNGOs and partners who know the communities and live amongst them. It is also best practice to link with government ministries best placed to address gender and established local groups who are working in health and nutrition to reduce overlap of activities and increase efficiency. Lastly, it is important to note that behavior change can be achieved even over short implementation periods using the small doable action (SDA) approach.

RECOMMENDATIONS

The following recommendations are made, based on the findings and the conclusions of the evaluation. Additional recommendations and detail are provided in the body of the report.

Integrate a new design template to better plan for project implementation through the CDCS. The evaluation team recommends the integration of a new design template to better plan for project implementation through the CDCS. Some topics that should be factored into future project design proposals include clearer linkage between the proposed program to the Results Framework and to WASH and nutrition, alignment with national priorities and strategies, stakeholder mapping that adequately incorporates WASH, gender, and nutrition, more research on risk and the social and environmental challenges faced by the people in these upazilas.

Link a new design template to emerging knowledge and learning coming from the implementation of WASHplus and from other sources. There is ongoing research being conducted in Bangladesh led by UNICEF and others on a new tube well design, SDAs, and sand filtration studies for latrines that should be taken into consideration.

Ensure future WASH/Nutrition projects clearly outline an integration strategy and set a Memorandum of Understanding at the national level, whether or not implementation is more focused at national, district, or divisional level. The strategy should also include clear indicators, which facilitate integration, monitoring, and evaluation. The national ministries concerned with health, public health, women and youth and education have the ultimate responsibility for ensuring projects are in line with national strategies and should be involved.

Hold a national Information, Education, and Communication (IEC) materials development workshop on WASH/Nutrition. It is important to ensure that all project beneficiaries, including those who are illiterate, are able to understand IEC materials and that they are interesting enough to spur change. Led by behavior change specialists and IEC experts, the target audience would include project staff and PNGOs.

Ensure formal contracts are established with local entrepreneurs and wards in future WASH programming. This should outline all stakeholders' roles and activities and will ensure continued ownership and accountability among different stakeholders in infrastructure installation and maintenance.

Build technical capacity of local government and PNGOs to manage projects and incorporate gender considerations. Capacity building should include training and short courses in conflict management, disaster preparedness, nutrition, menstrual hygiene, and gender and community dynamics. Such training was planned but not implemented by WASHplus due to budget cuts.

Prioritize the very marginalized in future funding of WASHplus activities. WASHplus was able to reach poor and marginalized households and this focus should be maintained in future WASH programming given the continued WASH needs and demands of the poor.

INTRODUCTION

Two-thirds of Bangladesh's population of 160 million people reside in rural areas. An estimated 62% of these Bangladeshis have access to improved sanitation facilities[5] and 87% have access to an improved drinking water source.[6] Of the seven administrative districts that make up Bangladesh, Barisal Division has the second highest incidence of poverty.[7] Characterized by drought during the dry season, annual flooding, and cyclones during the wet season, Barisal Division also faces many challenges related to water, sanitation, and hygiene (WASH). This region is particularly vulnerable due to its proximity to the Bay of Bengal and the maze of waterways that cut through the region. The use of leaking sanitation facilities and seasonal flooding often leads to contamination of drinking water sources. Thus, waterborne illnesses such as cholera, dysentery, and diarrhea as well as poor nutrition are common in the region. Thus USAID specifically selected southwestern Bangladesh as the WASHplus Activity site because of the region's high incidence of water related diseases, poor nutrition indicators, absence of sustainable WASH service provision, and highly marginalized and environmentally vulnerable population.

The USAID/Bangladesh WASHplus Activity addresses access, practices, and health outcomes related to WASH. This $4.33 million dollar, multi-year project (2013 - May 2016), led by FHI 360 in partnership with WaterAid Bangladesh (WAB) and local partner NGOs, is funded through the USAID Bangladesh Mission. Implemented between March 2013 to September 2015 in Bangladesh by FHI 360 and WAB, the WASHplus Activity aimed to improve access to safe drinking water, improved sanitation systems, and basic hygiene education in the southwestern region. Specifically, the WASHplus Activity was implemented in four remote upazilas,[8] Daulatkhan and Char Fasson in the District of Bhola, and Kalapara and Galachipa in the District of Patuakhali; a fifth upazila in Satkhira District was added in FY2015, and was not included in the scope of work for this evaluation (see Annex A). These upazilas were targeted given their poverty status, number of people without access to safe drinking water and improved sanitation facilities, remoteness of the region, and lack of other major WASH actors.[9]

Social Impact was contracted by USAID/Bangladesh to conduct an independent final performance evaluation (PE) of the WASHplus Activity. The purpose of this PE is to determine whether WASHplus activities met stated objectives, and to identify best practices, lessons learned, strengths and weaknesses, and provide evidence-based recommendations.

---

[5] Access to improved sanitation facilities refers to the percentage of the population using improved sanitation facilities. Improved sanitation facilities are likely to ensure hygienic separation of human excreta from human contact. They include flush/pour flush (to piped sewer system, septic tank, pit latrine), ventilated improved pit (VIP) latrine, pit latrine with slab, and composting toilet. This report uses the WHO/JMP definition of improved sanitation facilities. See: http://www.wssinfo.org/

[6] Access to an improved water source refers to the percentage of the population using an improved drinking water source. Improved drinking water sources include piped water on premises (piped water inside the dwelling, plot or yard), and other improved sources (public taps or standpipes, tube wells or boreholes, protected dug wells, protected springs, and rainwater collection). This report refers to the JMP definition of improved water sources. See: http://www.wssinfo.org/

[7] Bangladesh Bureau of Statistics, (2010). Report of the Household, Income and Expenditure Survey. Bangladesh: Ministry of Planning. Print.

[8] An upazila is an administrative geographical region in Bangladesh. They are also known as sub-districts.

[9] 'Actor' refers to local and international NGOs and stakeholders, as well as the Department of Public Health Engineering (DPHE).

DEVELOPMENT PROBLEM & USAID RESPONSE

A baseline assessment of Daulatkhan, Char Fasson, Kalapara, and Galachipa upazilas took place in 2013 among households with at least one child under the age of five years.[10] Although the assessment found that 98% of households reported having access to the main drinking water source all year round, the WASHplus Community Situational Analysis (CSA) conducted in 2013 revealed that an average of 102 people used existing water points, which is more than twice the Bangladesh national standard (50 people per water point).[11,12] The baseline assessment also found that only 9.5% of people reported having an improved latrine and one-third of households with any sanitation facility had a hand-washing station within 10 cubits (approximately five yards) of the latrine. Though few people reported practicing open defecation (OD) on a regular basis at baseline, 38% of respondents reported practicing OD when floods inundated sanitation facilities. Overall,19% of surveyed households reported that a child under the age of five had diarrheal illness in the two weeks prior to the assessment.

USAID/Bangladesh hypothesized that improved WASH status could be achieved by increasing use of WASH services in marginalized communities (through increased access to WASH and enhanced WASH practices), while improving the sustainability of WASH facilities (through building community capacity to manage WASH and increasing local resources allocated to WASH), and also improving coordination of WASH and nutrition programming. FHI 360 implemented WASHplus with in-country partner WAB, which in turn partnered with local non-governmental organizations at the upazila level including: Development Organization of the Rural Poor (DORP) in Char Fasson, Dhaka Ahsania Mission (DAM) in Daulatkhan, South Asia Partnership (SAP) in Galachipa, and Association of Voluntary Actions for Society (AVAS) in Kalapara; the fifth NGO in Satkhira district is Shushilan.

WASHPLUS ACTIVITY OVERVIEW

The objectives of the WASHplus Activity were as follows:

Objective 1: To reach poor and marginalized communities with sustainable safe water, sanitation, and with the promotion of hygiene by using locally appropriate technologies and approaches.

Objective 2: To build community and local government capacity in operating and maintaining water and sanitation facilities, demand increased allocation and pro-poor targeting of national and local government funds, and community contributions to ensure sustainability of activity interventions and impact.

Cross-Cutting Issue: Strengthen programming guidance for coordinated WASHplus-nutrition programming in Bangladesh.

WASHplus was guided by a results framework shown in Figure 1; 17 indicators were developed to track progress against intermediate results and the cross-cutting issue (see Table 4).

[10] WASHplus. 2015. *WASHplus Baseline Assessment of WASH in Southwestern Bangladesh*. Washington D.C.: USAID/WASHplus Activity.
[11] Addressing WASH in Southwestern Bangladesh; Quarterly Narrative Report (Oct.-Dec. 2014). Washington D.C.: USAID/WASHplus Activity
[12] Ministry of Local Government, Rural Development and Cooperatives, Government of the People's Republic of Bangladesh. SDP (FY 2011-25).

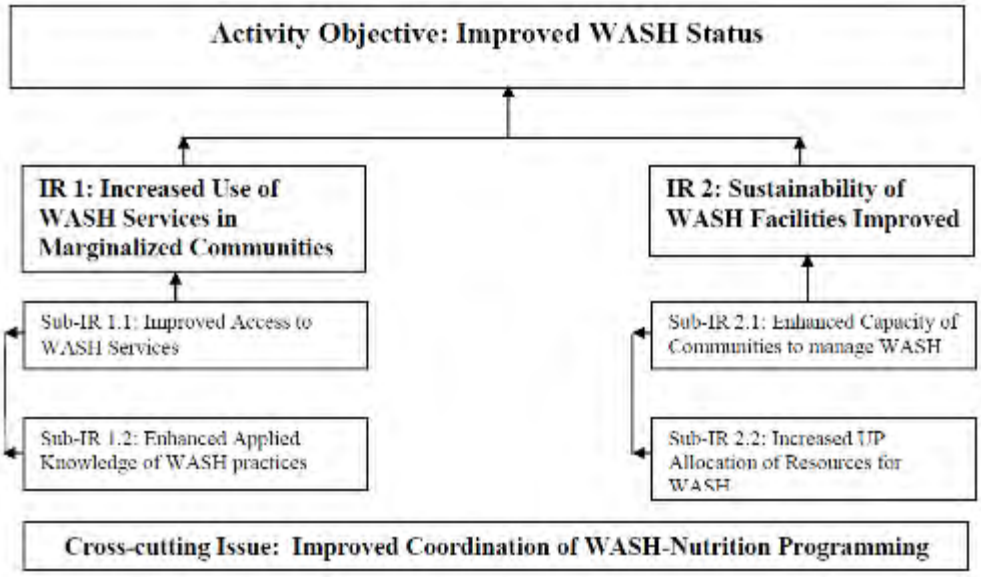


Figure 1: WASHplus Results Framework

WASHplus employs the BEHAVE Framework for Program Planning to guide targeting of audience, priority behaviors, key behavioral determinants, and project activities.[13] After identifying priority behaviors, WASHplus identified factors influencing these behaviors using research, expert experience, and CSAs, which fed into project design. The WASHplus behavior change strategy incorporates small doable actions (SDAs), combined with behavior change activities effective in promoting ideal WASH practices while also feasible given current practices and beliefs. Such behaviors include safe and hygienic disposal of feces, consistent and correct handwashing at critical junctures,[14] safe handling and storage of water, and menstrual hygiene.[15] This strategy is also based on the USAID WASH Improvement Framework, which theorizes that three key areas must be addressed to change behaviors[13]: (i) access to hardware and services, such as water supply, soap, sanitation products, and financial products such as loans; (ii) an enabling environment, including a supportive policies environment, institutions with the needed capacities, and coordinated government and NGO planning; and (iii) hygiene promotion and demand creation, which includes social mobilization, community participation, social marketing and behavior change communication.

To address these three key areas, WASHplus worked with local government and communities to rehabilitate existing and install new water and sanitation infrastructure; partnered with the local government agencies at various levels to improve decision-making and implementation, including the Department of Public Health Engineering (DPHE), and union[16] and Ward Water and Sanitation Committees (WWC); and developed Community Action Plans (CAPs) with local community members to ensure ownership of the project.

[13] USAID, WAB Bangladesh (2014). Bangladesh WASHplus Monitoring and Evaluation Plan.
[14] Critical junctures for handwashing: a. after defecation b. before food preparation c. before eating, breastfeeding, or feeding a child/infirmed.
[15] Safe menstrual hygiene practices: a. hygienic management of menses using clean clothes or menstrual pads, changed as needed b. hygienic disposal of pads or rags, or buried if not possible c. frequent washing of menstrual rags and drying in the sun.
[16] The union is an administrative area below an upazila, or sub-district.

PURPOSE OF THE EVALUATION

PURPOSE & AUDIENCE

The purpose of this PE is to determine whether the assistance provided by USAID/Bangladesh through WASHplus activities met its stated objectives, including whether WASHplus achieved its expected results within the expected timeframe. The evaluation assesses activity results against baseline values and WASHplus targets; identifies best practices, lessons learned, strengths, weaknesses, and constraints to sustaining activity achievements and approaches; and provides evidence-based recommendations.

The primary audiences and users of the evaluation report include USAID (USAID/Bangladesh and GHI/Washington), WASHplus implementing partners (IPs) (FHI 360, in partnership with CARE and Winrock International) and their sub-recipients (WAB and PNGOs), and the Government of Bangladesh (GOB). USAID/Bangladesh will use the findings to gain a better understanding of WASHplus relevance, impact, and effectiveness and inform future WASH and nutrition programming, and support evidence-based dissemination and advocacy around WASH in Bangladesh. The timing of this evaluation is appropriate for setting revised USAID priorities in WASH sector assistance in Bangladesh given the upcoming revision of its Country Development Cooperation Strategy (CDCS).

EVALUATION QUESTIONS

The evaluation answers the following questions:

1. To what extent was the WASHplus Activity successful in achieving its objective, intermediate results, and sub intermediate results?
2. Which institutional capacities, systems, and linkages and which household practices and behaviors are likely to be sustainable? Are the sustainability plans for maintenance, repair, and security of current infrastructure improvements (both water points and latrines) adequate to ensure activity success? To what extent have behavior change approaches been integrated into NGO and government practice?
3. How successfully were the strategies to integrate WASH and nutrition programing executed? What barriers and what enablers were found related to the integration of WASH and nutrition programming?
4. Are design and implementation of the gender strategies considered adequate and appropriate? How did (and which) activity interventions facilitate and/or inhibit equitable participation of men, women, boys and girls?
5. What are the best practices and lessons learned from WASHplus that could inform the design of similar activities in Bangladesh?

METHODOLOGY

A mix of quantitative and qualitative methodologies were utilized in this PE. Overall, the PE included: (1) a comprehensive desk review of approximately 40 documents, listed in Annex B; (2) a population-based survey of 1453 households; (3) phone surveys with UP chairmen or secretaries; (4) in-depth semi-structured key informant interviews (KIIs) and group interviews (GIs); (5) focus group discussions (FGDs); and (6) direct observation of project sites. Data collection tools are provided in Annex C. This mixed methods approach supports an in-depth understanding of project results and allowed for triangulation of findings in several cases. To ensure gender issues were adequately addressed, the SI gender specialist was involved throughout the development of all data collection tools and reports, applying SI's gender scorecard and quality assurance tools.

The aims of the desk review included understanding the behavior change strategy, all WASHplus activities that were implemented, important respondents and stakeholders at baseline who should be incorporated in the final evaluation, and information pertinent to the baseline evaluation design and findings. The desk review also assisted in the process of refining the qualitative and quantitative data collection instruments and protocols, and to source updated information on key indicators for the evaluation. Any information not found in project documents was sourced from information requests submitted to USAID/Bangladesh and IPs.

DATA COLLECTION

Qualitative and quantitative data collection took place in the four upazilas where the project was implemented: Daulatkhan and Char Fasson upazilas in Bhola district and Kalapara and Galachipa upazilas in Patuakhali district. Data collection took place from December 2015 through January 2016. Data sources are summarized in Table 1. Surveyed households are mapped in Figure 2.

Table 1. Data Sources

Source of Information	Respondent Group
KIIs	USAID, FHI 360, WAB, SRING and SHIKHA
GIs	PNGOs, Community level stakeholders and beneficiaries
FGDs	Community level stakeholders and beneficiaries
Structured observation checklists	Schools and community where technologies installed or rehabilitated
Document review (DR)	Sourced from USAID and others
Household Survey	1453 Households within 22 WASHplus unions within the four upazilas
Union Parishad (UP) Survey	UP chairmen/secretaries or delegate
Geospatial data	WAB (GPS coordinates for hardware installed)

HOUSEHOLD SURVEY

The population-based household survey was conducted in all 22 unions where the WASHplus Activity was implemented as per the evaluation scope of work. The survey focused on household WASH practices and health outcomes with the objective of measuring differences from baseline and WASHplus targets among key indicators (including use of improved drinking water sources, improved sanitation facilities, practices of handwashing and safe disposal of child feces, and child diarrheal illness), among others. The survey methodology was consistent with baseline to the greatest extent possible, including respondent eligibility criteria (households with at least one

child under five) and questionnaire administration (the baseline questionnaire was updated as needed for the end-line survey).[17] The household survey was administered by SI's in-country data collection partners, Innovation Research Consultancy (IRC).

Sampling for the household survey followed a two-stage, stratified cluster sampling approach, where villages (clusters) were drawn from each of the 22 unions (strata) in stage 1 using population proportional to size sampling (using population data from the most recent Bangladesh census for each village), and in stage 2, households were sampled using random walk methodology from within each village. In total, 67 villages were included in the household survey exercise. Village characteristics varied within these 22 WASHplus unions – some unions had many small villages, while others had a small number of large villages. For this reason, the population proportional to size methodology utilized a sampling with-replacement approach, such that any village within a union could be eligible for sampling more than once. From each cluster, 12 households were sampled; in the cases where a village was sampled more than once, the total number of households from that particular village would be a product of 12 and the number of times it was sampled. A list of villages sampled with the number of households surveyed in each union as well as each village is provided in Annex E (Table 9, Table 10).

Random walk methodology was used to sample households for the survey due to the absence of a viable sample frame of households with children under 5 in each selected village at the start of data collection. Random walk methodology is a statistically valid way to carry out a random sample within a cluster in the absence of a household listing to use as a sample frame. During a random walk methodology, many more households will be contacted than those that will be surveyed because households have to be assessed for eligibility after they are contacted. Because of the eligibility criteria for participation in the survey (at least one child under five in the household), not every household contacted will be eligible to participate (it is estimated that in these regions, about half of households will have at least one child under the age of five). In addition, not every household will be available, and not every household will agree to participate. Overall, household data collection took over three weeks to complete. Of the total of 3,344 households contacted by IRC, the total success rate in completing surveys was 43%; the majority of those contacted but not surveyed were households that were not eligible (had no child under five) (44%); the rest included households who were not available at the time of the visit (11%) and those that did not consent (2%). The target sample size of 1453 was achieved by continuing to contact households until the target for each area was reached. The household sample size was determined by sample size calculations to be able to determine a statistically significant (at 95%) change of 4.85% in the percentage of children under 5 with diarrheal illness, with 80% power.

Prior to survey administration, SI data analyst and quantitative survey specialist worked with IRC in Dhaka to conduct a training of trainers, develop a training guide for the household survey field interviewer teams, and to pre-test the survey in rural contexts similar to those where the WASHplus survey took place. IRC facilitated the supervisor and enumerator training and

[17] The household survey conducted for this PE focused in the 22 unions where the WASHplus Activity was implemented as per the contract scope of work, so the unions covered by the baseline and end-line may differ. In addition, anthropometric measurements were not part of this final evaluation as per the contract SOW.

instrument piloting. As part of the training, the instruments were piloted with a sample of respondents to gain initial feedback on critical issues such as question validity, ease of use, and appropriateness in the local context. Field supervisors monitored data quality during data collection, following guidance and training provided by SI. SI provided remote guidance on data quality assurance by examining data from the server on a regular basis. SI shared feedback with IRC so data could be verified and changes to data collection could be made when necessary.

The SI team used the baseline survey for WASHplus for the end of project household survey, after making revisions to the survey instrument to collect information about project performance relating to WASHplus activities. At baseline, the survey was administered by pen-and-paper. To eliminate time needed for data entry and expedite data collection, SI conducted electronic data collection. SI programmed the survey into SurveyCTO 2.0 software and IRC administered the survey using tablet devices. Electronic programming improves data quality by minimizing data entry errors using in-built constraints and data validation, and facilitating efficient survey branching and question/response logic. The software also allowed for the collection of household GPS data.

After complete raw data submission, survey data was cleaned and analyzed using Stata 13 software. Any inconsistencies in the data were queried and rectified with IRC. During analysis, sampling weights were applied to the data in order to adjust for the sampling design. The sampling weight represents the inverse of the probability that the household was selected for the survey; in other words, the weight indicates the number of households that the surveyed household represents in the target population of interest. Based on the sampling procedure, survey estimates are representative of households with at least one child under five in WASHplus unions within the four target upazilas. Table 2 shows the sample of households surveyed in each of the four upazilas, while Figure 2 shows a map of the households surveyed.

Table 2. Household survey sample in WASHplus unions within each upazila

District	Upazila	Household Sample
Bhola	Char Fasson	565
Bhola	Daulatkhan	360
Patuakhali	Galachipa	264
Patuakhali	Kalapara	264
	Total	**1453**

Note: as per contract SOW, data was collected only from WASHplus unions within the four upazilas. See Annex E for households surveyed per union and village.

Certain differences should be noted between baseline and end-line surveys. Results from the baseline survey reported by WASHplus in 2013 had not been adjusted for the sampling design; baseline statistics thus cannot be seen as representative of the populations in those areas as a whole. SI properly applied sampling weights to end-line data to account for the two-stage stratified cluster sampling design, and focused the survey within the 22 WASHplus unions as per the scope of work; thus end-line estimates are representative of households within the 22 project unions. SI reconstructed baseline weights in order to test statistical significance of key indicators for WASHplus, but it was not possible in the time allotted to reconstruct all baseline statistics.

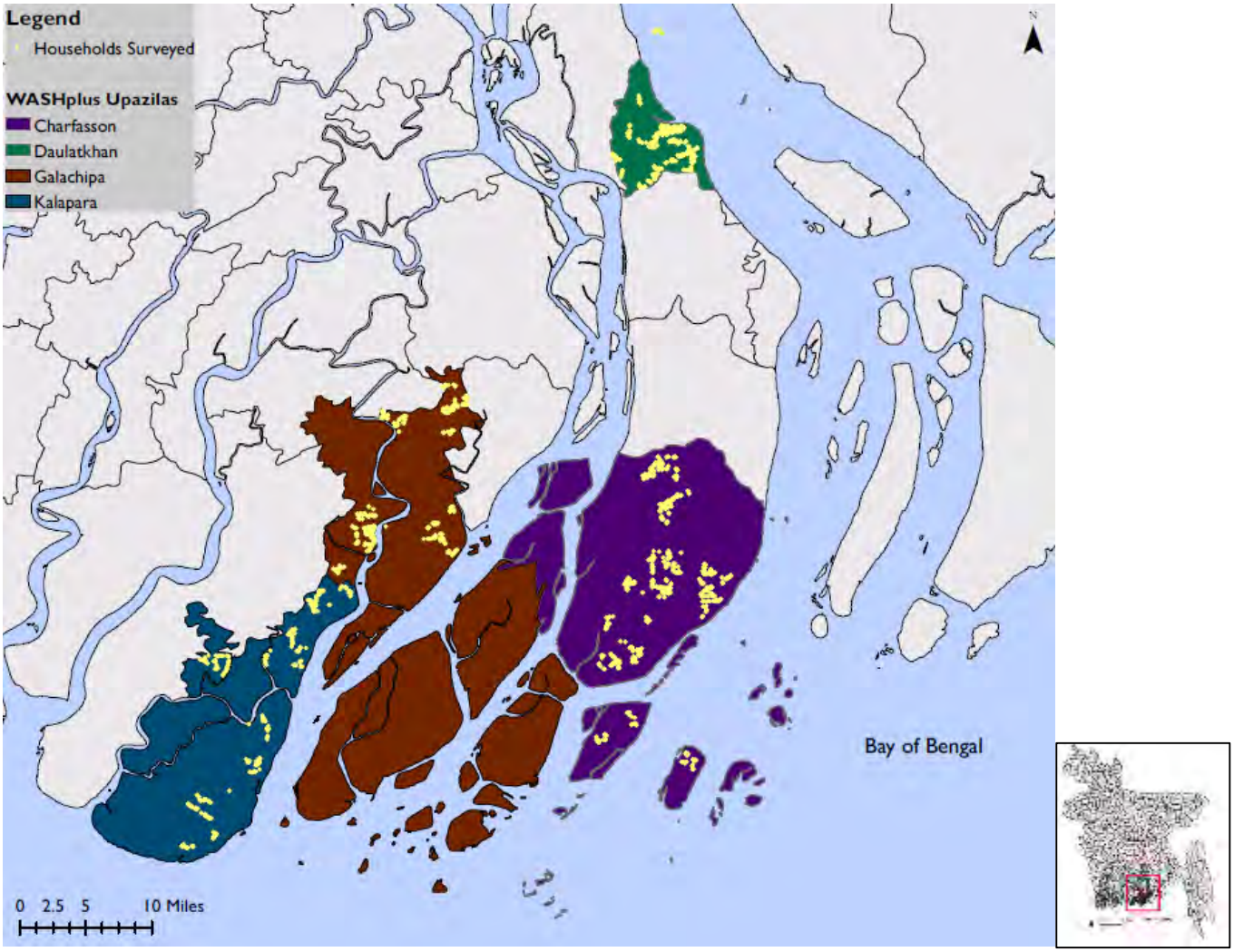


Figure 2. Map of households surveyed in WASHplus upazilas

UP SURVEY

Data collection partners, IRC, also conducted brief surveys over the phone with UP officials for each of the 22 unions where WASHplus was implemented. The survey took place over two weeks and UP chairmen or their secretaries were interviewed. While this was not part of the original scope of work of the evaluation, it had to be included in order to gather information for two of the WASHplus indicators, as the timeline for qualitative field work did not allow for the evaluation team to physically visit all 22 UPs. The purpose of this survey was to gather updated data for the following indicators, to compare with baseline: (1) % of UPs that developed an integrated WASH plan with the necessary budget allocation; and (2) % of allocation for WASH in UP annual budgets.

QUALITATIVE DATA COLLECTION

Qualitative fieldwork for this PE included a complementary set of interviews and discussions with key informants and project beneficiaries, and also a set of site visits to program sites. Qualitative interviews were conducted by the evaluation team leader and two technical/sectoral specialists in either English or Bangla, based on the preference of the respondent. A summary of the qualitative data collection completed is included in Table 3; a full list of interviewees is included in Annex D. Qualitative fieldwork such as KIIs, FGDs, and GIs (henceforth referred to as qualitative interviews) focused on direct and indirect beneficiaries of the project as well as implementers and key stakeholders in the community. The objective of the qualitative interviews, as a whole, was to gain an in-depth understanding of the degree of achievement of the program and other aspects related to the evaluation questions. Using multiple qualitative methods also strengthened the validity of the findings, as the qualitative narrative reports were triangulated. To the greatest extent possible the qualitative tools were designed to assist in the interpretation of quantitative data, and vice versa. The evaluation team took notes during the qualitative interviews, developed interview summaries, and reviewed findings daily. The team analyzed the qualitative findings and also triangulated with the survey results and desk review.

Further, the data collection process integrated gender considerations related to the context of the project. As women are the primary caretakers of the household and of children,[18] the qualitative study ensured that women were included in all data collection approaches and that the study was organized in venues and at times when women were available. Women and men were interviewed separately for FGDs, to facilitate open discussion. When organizing the interviews, efforts were made to engage female UP leaders to ensure that the list of persons interviewed captured the view of women and facilitated the discussion of challenges and opportunities facing both women and men.

Table 3. Summary of qualitative interviews conducted

Location	Stakeholders Interviewed	Method & Individuals		
		KII	*GI*	*FGD*
Dhaka	USAID, WAB, FHI 360, SPRING, DPHE, UNICEF	10	6	n/a
Char Fasson	DORF, school headmaster and teachers, bazaar committee members, facility caretaker, male and female beneficiaries, union facilitator, WWCs, Coastal Association for Social Transformation (COAST) NGO, CDF, Mother Group, DPHE, school management committee, school children, entrepreneur, DPHE, Civil Surgeon	12	60	110
Daulatkhan	Mother Group, female beneficiaries, caretaker, CDF, school children, entrepreneurs, union facilitators, DAM NGO, school teachers and management committees	5	31	62
Galachipa	School headmaster, SAP, WWCs, entrepreneurs, women's group, DPHE, male and female beneficiaries, Mother Group, Union Facilitator, CDF, UP Chairman, WWC, school children	6	54	57
Kalapara	DPHE, Bazaar committee, UP chairmen, WWC, entrepreneurs, UP Chairman, Union Facilitators, volunteer, AVAS, male and female beneficiaries, school children, Mother Group	9	33	45
Total Individuals		**500**		

[18] WASHplus Baseline Assessment of WASH Situation in southwestern Bangladesh, 2013, p. 4

During data collection, KIIs and group interviews were in some cases substituted for each other depending on the preferences of the respondents and time constraints. For example, in some cases, key informants were more comfortable with their team present, thus a group interview was conducted. KIIs were reserved for senior key personnel in governments and other institutions who were well informed on various issues and community problem.[19] Each interview took up to one hour and allowed the team to capture the perspectives of the project participants, staff, and others associated with the project. Interviews were semi-structured, encouraging free and open responses on many aspects of the project.

The evaluation team conducted multiple FGDs in each area of the four upazilas visited during fieldwork. FGDs were reserved for larger groups of 8 to 12 individuals, where those individuals are a relatively homogenous group (e.g. females representing household beneficiaries), to engage in an open discussion on issues such as water and sanitation. Community beneficiaries were the main respondents targeted by FGDs. FGDs allowed respondents to describe their experience with WASHplus and behaviors that could have been affected by WASHplus. FGDs were conducted with both female and male heads of household (in separate groups) who played a role in the WASHplus household and community related activities. Separating male and female respondents for focus groups allowed for a more open discussion, since there were significant gender-related issues discussed in the context of the WASHplus Activity. FGDs involving women and girls were administered by a female team member (Team Leader and female Technical/Sectoral Specialist) while those involving men and boys were administered by a male team member (male Technical/Sectoral Specialist).

A series of site visits conducted by the evaluation team also facilitated direct observation and spot check of program activities. The evaluation team administered a structured observation checklist. The team chose observation sites after consultation with PNGOs. Site selection using GPS coordinates of hardware installed was not feasible prior to data collection as requests for project GPS data were met only after fieldwork was completed.

See Annex C for all data collection tools, including those used for KII, GI, and FGDs.

LIMITATIONS

A sample frame of eligible households (with at least one child under five, following the baseline methodology), was not available at the start of the data collection for this evaluation. Existing datasets would have been out of date and developing a full census listing of the selected villages was not feasible given the time allotted for data collection. The team mitigated this challenge by employing a random-walk methodology. The potential for recall or desirability bias exists for questions where the respondent had to report their own behaviors or that of other household members. Another challenge that IRC faced was the reluctance on some women to participate in data collection given that it was harvesting season. The teams overcame this challenge by building rapport with the local women. Given that geospatial data on WASHplus-installed

[19] The success of GIs, KIIs and GIs is largely dependent on the skills of the interviewer and her/his ability to engage but not influence the person(s) being interviewed. There is always a chance that some persons may not talk as freely in a group setting as they would individually, or that peer expectation or pressure could influence their opinion. The evaluation team minimized this likelihood by preparing a list of KIIs, GIs and FGDs in advance and making all efforts to follow this agenda. The preferences of those interviewed in KIIs were also taken into consideration.

hardware was made available to SI only after completion of field work despite earlier requests, the qualitative team relied on the PNGOs to obtain information on the location of hardware in order to complete site visits during qualitative fieldwork. The evaluation team tried to randomly select from these sites as best as possible given transportation challenges. The terrain of the project villages was a major challenge for both the evaluation team and IRC; transportation challenges included long distances and unsafe road conditions. Despite these challenges, all surveying and fieldwork was completed successfully according to plans. Lastly, the team had success in conducting the UP phone surveys, but in a small number of cases contact persons were unreachable or data were not available for certain UP budgets. This does not substantially affect any of the findings on UP budgets.

FINDINGS

Q1: ACHIEVEMENT OF OBJECTIVES, IRS, AND SUB-IRS

Q1: To what extent was the WASHplus Activity successful in achieving its objective, intermediate results, and sub intermediate results?

The WASHplus Activity in Bangladesh had several objectives, IRs, and sub-IRs. As described in the project overview above, the objectives included (1) To reach poor and marginalized communities with sustainable safe water, sanitation, and with the promotion of hygiene by using locally appropriate technologies and approaches; and (2) To build community and local government capacity in operating and maintaining water and sanitation facilities, demand increased allocation and pro-poor targeting of national and local government funds, and community contributions to ensure sustainability of activity interventions and impact. A cross-cutting issue was to strengthen programming guidance for coordinated WASHplus-nutrition programming in Bangladesh. The findings in this section are organized by IR and sub-IR (Figure 1).

WASHplus developed 17 indicators to track project achievements. Of these indicators, 10 met their targets, four did not, and one (#14) is disaggregated by union rather than reported as an overall figure. Two indicators (#2 and #3) were not within the scope of this evaluation. A full summary of the WASHplus project achievements against targets is provided in Table 4.

Table 4. WASHplus indicators, targets, and actuals

PIRS Number	Indicator Definition	Data Source	Baseline Value (2013)	2015 Target	End-line Value (2015-6)	Target Met
Project Objective: Improved WASH Status						
1	% of children under age five who had diarrhea in the prior two weeks	Household Survey	19.1%	14.25%	15.6%	No
Intermediate Result 1: Increased use of WASH services in marginalized communities						
4	% of households using improved drinking water source	Household Survey	98.9%	99.3%	99.8%	Yes
5	% of households using improved sanitation facilities	Household Survey	9.5%	25%	20%	No
6*	% of households practicing safe disposal of child feces	Household Survey	46.7%	75.5%	54.6%	No
7	% of households with a functional handwashing device/station with water and soap	Household Survey	5%	25%	16.3%	No
8**	# of people gaining access to improved drinking water source	Project Documents	n/a	65,771	94,200	Yes
9**	# of people gaining access to improved sanitation facilities	Project Documents	n/a	88,358	154,729	Yes
10**	# of communities certified as OD free (ODF) as a result of USG assistance	Project Documents	n/a	512	653	Yes
11	# of households that installed handwashing device /station	Project Documents	n/a	39,726	41,114	Yes
Intermediate Result 2: Sustainability of WASH facilities improved						
12	% of UPs that developed an integrated WASH plan with necessary budget allocation	UP Survey	68.1%	90%	100% (FY 2014-15)	Yes
13***	# of ward-generated WASH funds	WAB	n/a	10	189	Yes
14	Proportion of allocation for WASH increased in UP annual budget	UP Survey	n/a	n/a	disaggregated by union	n/a
Cross-cutting Issue: Improved coordination of WASH-nutrition programming						
15***	# of villages targeted by USAID nutrition implementation partners with increased water or sanitation access	FHI 360	0	50	56	Yes
16***	# of materials modified to facilitate water, sanitation and hygiene promotional efforts	FHI 360	0	2	10	Yes
17***	# of people reached with integrated WASH/Nutrition messages	FHI 360	0	1590 (direct) 5,342 (indirect)	19,979 (FTF villages) 67,129 (indirect)	Yes

Notes: (1) WASHplus indicators 2 (prevalence of wasted children under five years of age) and 3 (prevalence of underweight children under five years of age) are excluded from this table given that these were not within the scope of this evaluation. (2) All indicators obtained through project documents were obtained through WASHplus quarterly reports and were not verified through other sources.

**Safe disposal of child feces is defined as any household where reportedly children used the household latrine or if the child's feces are put directly into the latrine by an adult. A household was considered to practice safe disposal as long as one of these answers was in the affirmative, even if the same household reported using any other non-safe disposal methods as well. SI used this calculation because the baseline report seems to have used this approach. In an attempt to verify which approach was used at baseline, SI was ultimately unable to replicate the original PIRS baseline values. In discussions with FHI 360, SI learned that FHI 360 also had concerns about the baseline calculation for this indicator. As a result, SI used its own new analysis of the baseline data to compare if the difference between baseline and end-line safe disposal of child feces. The baseline value for this indicator reported in the table is from SI's recalculation of the baseline data. **Project documents do not state how indicators 8, 9, and 10 were calculated. ***End-line values for indicators 13, 15, 16, and 17 were obtained through email communication from IPs to the evaluation team. No supporting project documents were provided to verify these results.*

IR 1: INCREASED USE OF WASH SERVICES IN MARGINALIZED COMMUNITIES

SUB-IR 1.1: IMPROVED ACCESS TO WASH SERVICES

The evaluation team assessed access to WASH services in terms of access to water sources and sanitation facilities, as well as hardware installed and rehabilitated. In summary, the WASHplus Activity met its target of the proportion of households using an improved drinking water source, and the end-line survey found that almost all households used an improved water source according to the JMP definition. However, other aspects of reliable access (e.g. source-sharing, or time spent fetching water) did not necessarily improve.

While WASHplus did not meet its target of the proportion of households using an improved sanitation facility, there were improvements toward greater use of improved sanitation facilities. Additionally, the practice of OD declined in project areas during this time and the project met its target of communities certified as ODF.

There were also positive trends in safe disposal of child feces and proportion of households with a functional handwashing station, though project target for these indicators were not met. The project did meet its target of households that installed handwashing devices.

Diarrheal illness among children under five in the two weeks prior to the survey also declined, but did not meet project targets. Further detail is provided below.

Drinking Water

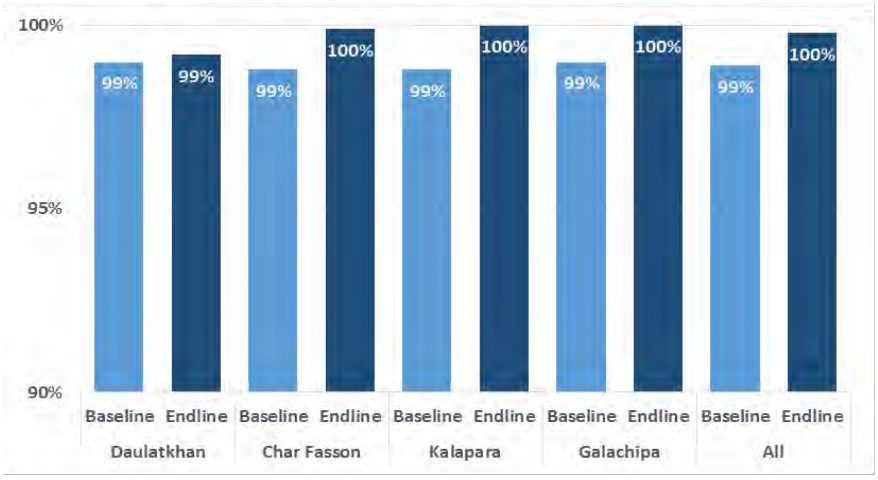
- ***WASHplus constructed 670 community deep tube wells in the four upazilas by mid-2015. Overall, use of an improved drinking water source (deep tube wells) increased from 98.9% to 99.8% during the project.***
- ***However, this indicator does not capture all aspects of adequate and reliable access to water. Source-sharing remains a serious concern in these areas.***
- ***Nearly 80% of households leave their own compound in order to fetch water from a shared source, a modest reduction from about 87% at baseline.***
- ***Over 60% of households at end-line reported an average time required to fetch water (including waiting time at the source) of at least 15 minutes, compared with 36% at baseline.***
- ***Further, women disproportionately bear the burden of water fetching; 82% of those who fetch water for their households are female.***

Drinking Water

According to WASHplus Activity documents, the project constructed or promoted the construction of 670 community deep tube wells through which the implementers estimate that 94,200 people gained access to clean water by June 2015.[20] Both baseline and end-line surveys found that the vast majority of households used an improved drinking water source, as per WHO/UNICEF JMP definition.[21] Overall, use of an improved drinking water source (deep tube wells) increased significantly from 98.9% to 99.8% during the project ($p<0.001$), exceeding the

[20] *Addressing WASH in Southwestern Bangladesh; Quarterly Report (April- June 2013)*. Washington D.C.: USAID/WASHplus Activity.
[21] WHO/UNICEF JMP (JMP) definitions: http://www.wssinfo.org/definitions-methods/WWC-categories/

project target of 99.3% (Figure 3). In this context, improved sources included tube wells[22] and unimproved sources included surface water (river, canal, pond, etc.).



* Note: vertical axis starts at 90%. Water source definitions as per WHO/JMP.

Figure 3. Use of improved drinking water source, baseline and end-line, by upazila

However, use of an improved source does not, on its own, represent adequate access to safe and reliable water, as it does not consider source-sharing, walking distance, time-cost of fetching water, or water quality. Note that the Government of Bangladesh Sector Development Plan (SDP) defines improved water sources with additional detail relevant to the context, compared to the JMP definition, which includes source-sharing with fewer than 50 people (Annex E, Table 11, Table 12). A WASHplus CSA conducted in 2013 revealed that an average of 102 people used existing water points, which is more than twice the Bangladesh national standard (50 people per water point)[23]. Project documents report that project areas had an average of about 81 users per water point by the end of 2014.[24] Qualitative interviews with community members conducted as part of this evaluation demonstrated a continued need for additional water points to reduce source-sharing. For example, many households reported using a tube well for which they were not part of the user-group; these individuals often reported walking long distances to reach tube wells and must ask for permission to use them.

Overall, the average distance to a household's main source of drinking water at end-line was 115 meters, compared to 124 meters at baseline. The overall average time required to fetch water from the main water source (including round-trip travel time and waiting time at the source) increased between baseline to end-line, as a higher proportion spent at least 15 minutes walking (60.8%) to the source at end-line compared with baseline (36.3%) (Annex E, Table 13).

Though there are more community tube wells available as a result of the project, it seems residents are spending more time fetching water. This may be partly due to source-sharing. In all upazilas other than Galachipa, reports of using a water source owned by another household

[22] While the baseline reported exclusive use of deep tube wells, some respondents in the end-line survey reported the use of shallow tube wells. However, the majority of tube wells in this region are deep according to the DPHE, and most hand-operated tube wells constructed by NGOs and government bodies in the project areas are deep sets, so we refer to the tube wells used in project areas as deep tube wells.
[23] *Addressing WASH in Southwestern Bangladesh; Quarterly Narrative Report (Oct.-Dec. 2014).* Washington D.C.: USAID/WASHplus Activity
[24] The number of users per water point was not quantified at end-line.

increased (overall from 24% to 32%), and NGO ownership increased (overall from 8% to 14%) while household ownership of water sources essentially did not change overall (3.3% to 4%) (Annex E, Table 15). Nearly 80% of households still leave their own homestead in order to fetch water from a shared source, a modest reduction from about 87% at baseline (Annex E, Table 13).

Eighty-two percent of those interviewed in the end-line survey stated that female household members were primarily responsible for fetching water for the household (Annex E, Table 14), and qualitative findings confirmed that women were the ones expected to fetch water. The time-cost of fetching water must therefore be considered an important part of access especially as it disproportionately affects female members of households.

Water quality is another important factor to consider as part of access given the proximity to the Bay of Bengal – surface water is subject to salt water intrusion from the Bay, contamination from sanitation facilities, surface navigation, and seasonal flooding. Table 16 (Annex E) shows that respondents' rating of the quality of their water source did not change substantially from baseline to end-line (about 92% to 90%). Though groundwater in deep aquifers should not be affected by the factors listed above, among those who did not rate the water quality as good, the most common reason overall at baseline and end-line was the salty taste (63.2% and 85.8%, respectively).

Sanitation Facilities

- ***By June 2015, 154,729 people were estimated to have gained access to an improved sanitation facility due to the installation of 30,929 latrines by WASHplus.***
- ***Overall, the use of improved sanitation facilities increased from 10% to 20% between baseline and end-line, according to the classifications used at baseline, though the project did not meet its target of 25%.***
- ***Access to improved sanitation during floods is critical to prevent reverting to OD. The proportion of households with a latrine installed above flood level increased from 56% to 76% overall, with the most substantial improvements in upazilas with the lowest proportions at baseline (Kalapara and Galachipa).***
- ***WASHplus also utilized the community led total sanitation (CLTS) approach to encourage improvement of existing sanitation facilities. Household survey data show that there was an increase from 33% to 45% overall in the proportion of households who took action to maintain or repair their latrine since installation, with the greatest increases in Daulatkhan and Kalapara.***

Sanitation & Latrines

By June 2015, WASHplus IPs estimated that 154,729 people gained access to an improved sanitation facility due to the installation of 30,929 latrines.[25] According to the survey, the use of improved sanitation facilities increased overall from 10% to 20% between baseline and end-line, a statistically significant difference ($p < 0.001$) though the project did not meet its target of 25% (Figure 4, Table 17).

Note that authors of the baseline assessment did not classify sanitation facilities according to the WHO/UNICEF JMP definitions, which includes pit latrine with slab as an improved sanitation facility.[26] In order to maintain comparability with baseline we show the results according to baseline classifications.

Latrines were provided in one of two ways. First, PNGOs cooperated with UPs and the Ward WWC Committees (WWC) to select sites and install latrines. Secondly, PNGOs linked local

[25] *Addressing WASH in Southwestern Bangladesh; Quarterly Narrative Report (Jan.-Mar. 2015).* Washington D.C.: USAID/WASHplus Activity
[26] See: http://www.wssinfo.org/definitions-methods/WWC-categories/

entrepreneurs and community members to facilitate latrine installation. Entrepreneurs received free latrine parts from the project, which they sold at market price to community members, in some cases at a discount so that they would be hired to build a latrine. During qualitative interviews, most entrepreneurs (except for those in Kalapara) stated that they had received a two-day training on building latrines from WASHplus. However, few beneficiaries reported during qualitative interviews to have had their latrine installed by an entrepreneur trained by WASHplus; many reported finding local affordable contractors to build their latrines.

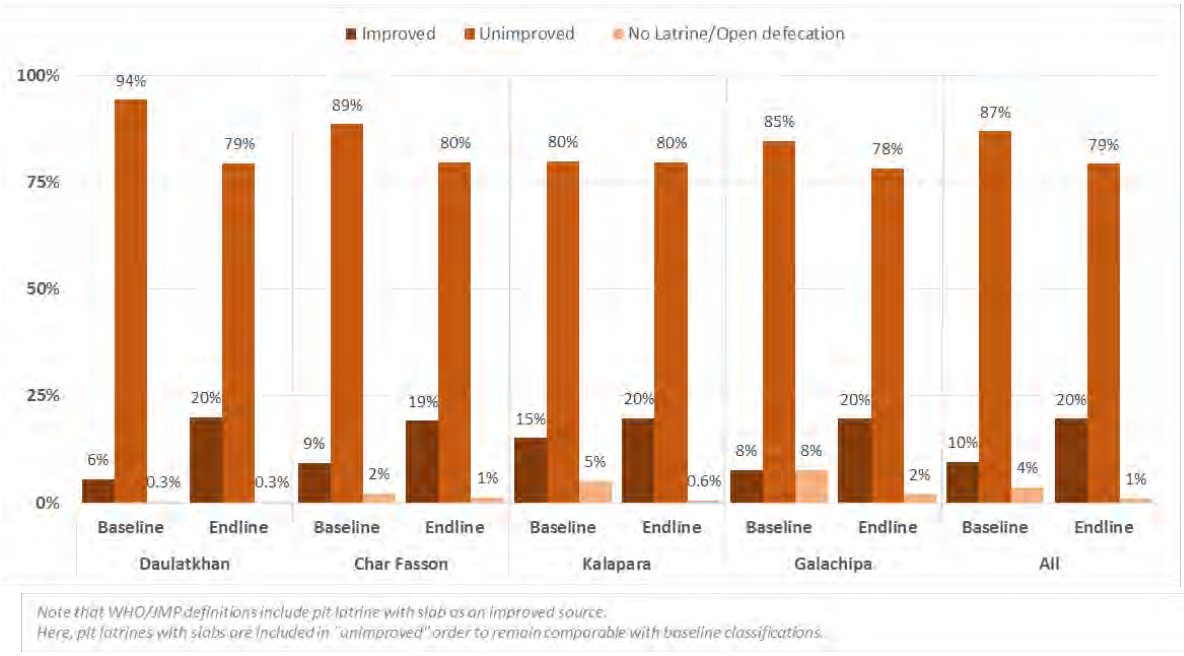


Figure 4. Use of improved sanitation facility, baseline and end-line, by upazila

Given the prevalence of flooding in this region, access to improved sanitation facilities during floods is also critical, especially to prevent reverting to OD. The proportion of households with a latrine that was installed above flood level increased from 56% to 76% overall (Annex E, Table 18). Increases in Kalapara (40% to 80%) and Galachipa (41% to 74%), which had the lowest proportion of households with a latrine built above flood level at baseline, mainly accounted for the observed overall changes.

Along with installing new latrines, the improvement of existing sanitation facilities was another important WASHplus component. WASHplus utilized the community led total sanitation approach[27] (CLTS), which galvanized people to use their own funds and time to rehabilitate and build latrines and CLTS to bring community leaders together and plan WASH activities. During qualitative interviews project beneficiaries confirmed that these activities, along with the involvement of trusted PNGOs and informative Mother Groups motivated community members to repair or make improvements on their existing latrines. Household survey data show that

[27] CLTS is recognized by the Bangladesh governments as the most appropriate strategy to inspire and empower rural communities to stop OD and to build and use latrines. It uses participatory methodologies to develop awareness of the risks of OD and facilitate community self-analysis of their health and sanitation status. Its aim is to ignite" communities to cease OD and commence toilet construction using local materials. CLTS has been recognized by the United Nations as one of the most effective approaches to promoting sanitation and achieving the MDGs for sanitation (Ahmed, 2008).

there was an increase in the proportion of households who took action to maintain or repair their latrine since installation, overall from 33% to 45%, with the greatest increases in Daulatkhan (26% to 56%) and Kalapara (26% to 44%) (Annex E, Table 19). The most common types of repairs that households made were repairing the wall or roof of the latrine (66%), having a slab or pan fitted (36%), having a ring set (38%), and having a new pit dug (20%) (multiple responses were allowed). All of these repairs indicate movement toward improved sanitation facilities.

Diarrheal Illness Among Children

Diarrheal illness remains endemic in Bangladesh due to deficient water and sanitation facilities and certain WASH behaviors. Figure 5 shows the changes in the prevalence of diarrheal illness[28] among children in the project areas from baseline to end-line, disaggregated by sex and upazila. Overall, diarrheal illness among children under five years of age declined significantly from about 20% to 16% ($p < 0.05$), but did not meet the project target of 14%[29] (Figure 5). Some notable trends were the stark decline in prevalence among female children in Char Fasson (24% to 7%) and the increase in prevalence among female children in Galachipa (12% to 15%), despite prevalence declining in all other upazilas. The prevalence of diarrhea at end-line did not differ when disaggregated by improved and unimproved water source (Annex E, Table 21). When disaggregated by sanitation facility, the prevalence of diarrhea at end-line was only slightly lower among those with improved (14.8%) compared to unimproved (16.6%) (Annex E, Table 22).

Diarrheal Illness Among Children

- ***Overall, diarrheal illness among children under five years of age declined from 19% to 15%. The difference is statistically significant, though the WASHplus project did not meet its target of 14%.***
- ***Qualitative interviews with project beneficiaries confirmed a perceived decline in diarrhea among community members due to improved access to clean water, but did not mention sanitation or hygiene.***

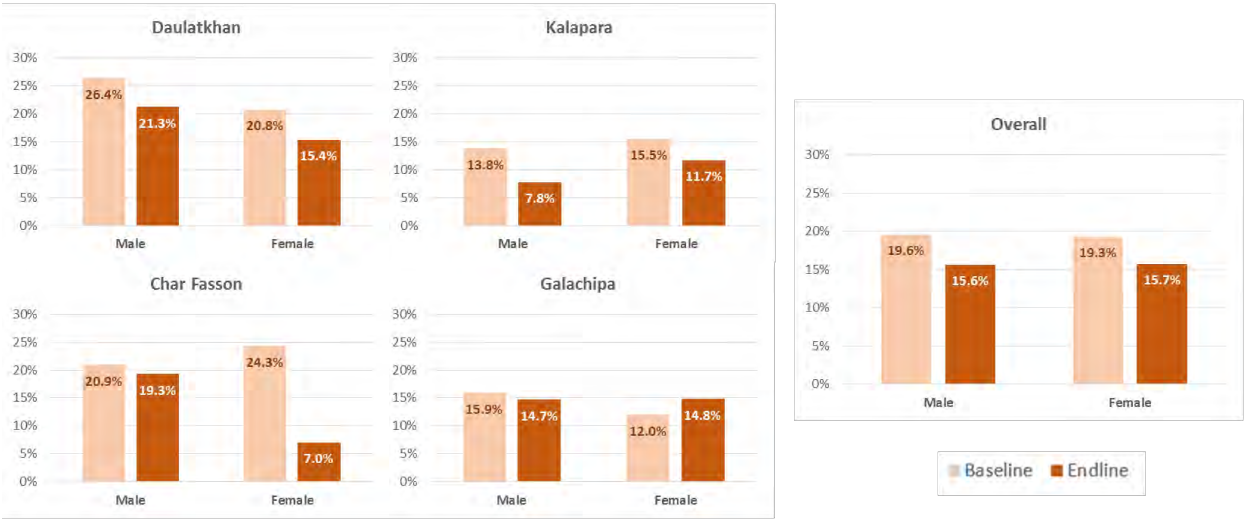


Figure 5. Percent (%) of children <5 with diarrhea in the two weeks prior to survey, by upazila

[28] Diarrhea was defined as having at least 3 watery stools in a day.
[29] Data collection for both baseline and end-line surveys occurred during December/January, thus ensuring that seasonality did not substantially affect differences between baseline and end-line estimates.

Handwashing devices

Project documents show that 41,114 households had installed handwashing devices by June 2015. The prevalence of functional handwashing devices with soap and water significantly increased overall from 5% to 16.3% ($p<0.001$) (Figure 6). The availability of a handwashing device inside or near a kitchen increased overall from 33% to 47% (Annex E, Table 23).

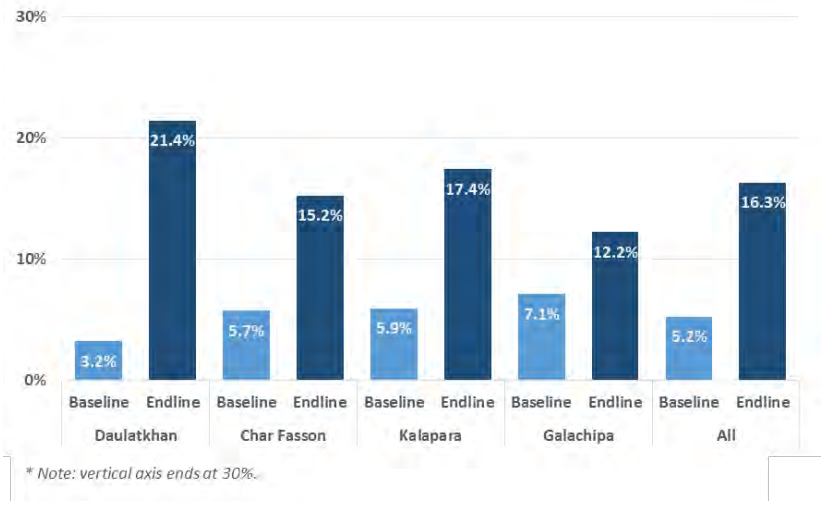


Figure 6. Percent (%) of households with functional handwashing point with water and soap

Table 23 (Annex E) also shows the different types of handwashing devices used by households in these areas. The proportion of households using tube well for handwashing increased from 14% to 23% and the proportion using a bucket, pitcher, or jug increased from 33% to 43%. The proportion using a pond, river, or canal declined from 59% to 36%. The proportion using tippy taps was not assessed at baseline but was 5% at end-line. The move away from use of water from a pond, river, or canal toward other methods shows movement toward hygienic behaviors (i.e., use of tube well, tap with running water, and basin).

WASHplus Activity reports identified that promoting the installation of tippy tap devices for handwashing improved community and individual level behavior change because they posed no cost to the community and they are easy to operate. Interviews showed that households are also now showing a preference for larger, more industrial sized barrels for handwashing devices as opposed to the traditional smaller bottles or jerry cans

Handwashing

- ***Project documents show that 41,114 household handwashing devices were installed by June 2015. The prevalence of functional handwashing devices significantly increased overall from 5% to 16%.***
- ***The availability of a handwashing device inside or near a kitchen increased overall from 33% to 47%.***
- ***Between baseline and end-line, there was an increase in the percentage of households who used a tube well, bucket, pitcher, or jug for handwashing as opposed to surface water, demonstrating movement toward more hygienic behaviors.***
- ***Despite the number of handwashing devices built by the project, the prevalence of handwashing devices within 10 cubits (approximately 5 yards) of a latrine declined between baseline and end-line. One possible explanation includes that latrines and handwashing devices were not built with this distance in mind.***

because they do not have to fill up the larger containers as often.

The availability of a handwashing device within 10 cubits (approximately 5 yards) from a latrine declined between baseline and end-line (33% to 26%) (Annex E, Table 23). This trend is unexpected given the WASHplus activities and merits further investigation. One possible explanation might be that latrines and handwashing stations were built by WASHplus without consideration of this distance – WASHplus activities reportedly led to the installation of 30,929 improved latrines and 41,114 handwashing devices, according to project quarterly reports. It is possible that latrines were built in certain areas without accompanying handwashing stations nearby (even if those handwashing stations were built elsewhere). Another possible explanation could be measurement error at baseline, but it is not possible for the evaluation team to verify. Using GPS data obtained from the implementers, WASHplus handwashing devices and sanitation facilities are mapped in Figure 8 to show their locations.[30] Note that this map shows WASHplus-built facilities, and not the total distribution of all latrines and handwashing points in these areas.

SUB-IR 1.2: ENHANCED APPLIED KNOWLEDGE OF WASH PRACTICES

Behavior change comprised a key component of the WASHplus strategy. At the community level, WASHplus worked with beneficiaries to negotiate and promote SDAs at the individual and household level. This section reports on the different ways project beneficiaries received knowledge and then assesses the changes from baseline to end-line on SDAs. Many handwashing practices changed positively. The practice of OD declined overall, and people also reported low rates of OD when latrines were inundated with flood water, which represents a substantial improvement from the situation reported at baseline.

Applied knowledge of WASH practices

- ***Safe disposal of child feces increased overall from 47% to 54% but did not meet the project target of 75.5%.***
- ***SDAs related to safe water storage (covering container while fetching, placing water container on high platform) did not change noticeably.***
- ***The proportion of respondents who reported to wash their hands with soap at key junctures rose substantially: after defecation (41% to 80%), after cleaning child's excreta (33% to 58%), before feeding a child (9% to 28%), and before eating (4% to 24%), before cooking (3% to 25%). However, the majority of people were still not cleaning their hands before feeding a child and before eating.***
- ***The prevalence of using surface water as the main source of water for cooking and washing utensils declined slightly from 81% to 75%.***

Safe Disposal of Child Feces

Safe disposal of child feces increased significantly from 46.7% to 54.6% ($p < 0.05$), but did not meet the project target of 75.5%. Despite the decline in OD, the continued disposal of child feces in open pits, ponds, canals, and rivers poses a threat of fecal contamination of drinking water sourced from surface water sources, as well as surface water used for handwashing, irrigation, bathing, and other uses. This finding, along with the fact

[30] Of the total of 41,114 handwashing devices reportedly installed through WASHplus activities, 32,373 are mapped. Of the total 30,929 sanitation facilities reportedly installed through WASHplus activities, 20,219 are mapped. Of the GPS data obtained from WASHplus implementers, 1,827 handwashing device GPS points and 6,908 sanitation facility GPS points had to be eliminated because they are outside of Bangladesh or are not valid GPS points; 6,914 handwashing device GPS and 3,802 sanitation facility GPS points had to be eliminated because they are within Bangladesh but outside of WASHplus upazilas.

that the about half of people did not wash their hands with soap after cleaning child's excreta show a possible gap in behavior change related to child defecation (Annex E, Table 29).

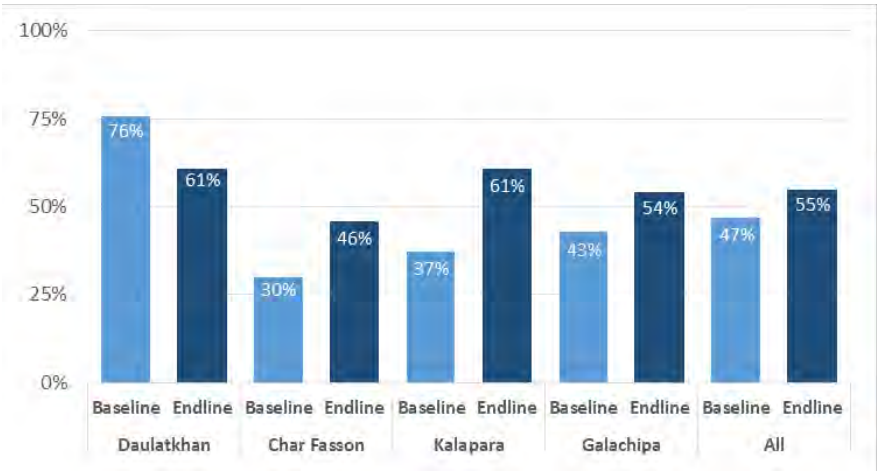


Figure 7. Percent (%) of households practicing safe disposal of child feces, by upazila

Safe Water Storage

Actions taken after collecting water from the well and during transportation and storage are key to maintaining clean drinking water and preventing waterborne illnesses. SDAs promoted by WASHplus include safe handling of containers used to fetch and store water. From baseline to end-line, the proportion of respondents who reported to always cover their water containers while fetching water changed slightly (always cover while going to water point increased from 81% to 86% and always cover while returning from water point increased from 82% to 88%) (Annex E, Table 27). The proportion of respondents who reported to place their water containers on a platform that is 0.25 yards above the floor did not change overall (77% to 76%) (Annex E, Table 28).

Handwashing Practices

Handwashing is a simple yet effective method of preventing water-borne illnesses. The proportion of respondents who reported to wash their hands with soap after defecation (41% to 80%), after cleaning child's excreta (33% to 58%), before feeding a child (9% to 28%), and before eating (4% to 24%), before cooking (3% to 25%) all rose substantially (Annex E, Table 29). However, the majority of people were still not cleaning their hands before feeding a child and before eating. (Table 29). Another SDA that rose from baseline to end-line was the use of separate soaps for different purposes to reduce contamination (44% to 69%) (Annex E, Table 30). For example, if a water point exists near both a sanitation facility and kitchen, the soap at this water point may be used after defecation and before cooking. During the end-line survey, most people reported to use separate soaps for different purposes. Mothers who were members of Mother Groups confirmed during qualitative interviews that they received messages on handwashing behavior. However, they also revealed that the messages became monotonous as they received the same message month after month. Thus, it may be important to explore how WASH and health

messages could be more informative and interesting to the beneficiaries to promote hygienic practices.

Similar to baseline, most households used surface water for cooking and washing utensils during the end-line survey. However, the proportion of households who did so declined slightly from 81% to 75.3%, potentially in favor of better-quality water (Annex E, Table 31). Contamination of surface water from sanitation facilities is still likely to occur in these areas given the information presented above and thus, the risk of water-borne illnesses continues in the upazilas.

Open Defecation

The practice of OD pollutes surface water, shallow groundwater, contaminates crops, and can contribute to the spread of disease. The practice is often due to the lack of convenient access to sanitation facilities. By June 2015, WASHplus declared 653 communities open-defecation free zones (ODF), meeting the project target of 512.[31] The percentage of households reporting to practice OD was low at baseline and declined further in all four upazilas by the end of the project (3.6% to 1.1%) (Annex E, Table 24). There was no differentiation of OD by time of day. Additionally, flooding of sanitation facilities can also lead to OD. At baseline almost half of respondents in Daulatkhan, Char Fasson, and Kalapara reported OD when the household latrine was inundated with flood water. However, a sharp decline was observed at end-line as only 6.2% of respondents reported to engage in this behavior across all the upazilas. This finding suggests that people have understood the importance of using latrines even during times of flooding. Research in other contexts shows that 13% of the population usually reverts back to the practice after two or more years.[32] Qualitative findings suggest some community members in some areas still revert to OD during flooding. Long-term behavior change will likely be accompanied by a projects with longer implementation periods. Nevertheless, this finding suggests that regardless of the length of project duration, it may be important to keep in mind the tendency of communities to revert to OD and to explicitly take that into account when designing behavior change materials or strategies.

Behavior related to cleanliness of household latrines and fecal sludge[33] disposal also changed. Such behavior directly relates to improving the quality of drinking water in the area given the likelihood of contamination from latrine waste. Table 32 (Annex E) shows that the percentage of people with a brush or broom to clean fecal sludge rose from 12% to 26%. Given the low cost of these cleaning supplies, this is likely due to the lack of knowledge on this topic. However, important changes were observed in terms of fecal sludge disposal as the majority disposed in septic tanks (rose from 8% to 76%) or in a hygienic pit (34% to 55%) (Annex E, Table 32).

IR 2: SUSTAINABILITY OF WASH FACILITIES IMPROVED

The capacity of communities to manage WASH structures post-installation is a critical aspect of sustainability of improved WASH facilities. Between baseline and end-line, there was an increase in the use of a household's own funds (from 11% to 77%) to maintain drinking water points

[31] *Addressing WASH in Southwestern Bangladesh; Quarterly Narrative Report (Jan.-Mar. 2015)*. Washington D.C.: USAID/WASHplus Activity
[32] WASHplus Quarterly Narrative Report January-March 2015
[33] Fecal sludge refers to the combination of feces and other materials such as dirt, mud, water, etc.

(Annex E, Table 33). There were also increases in the maintenance of latrines, as stated above, showing a move toward improved sanitation facilities.

SUB-IR 2.1: ENHANCED CAPACITY OF COMMUNITIES TO MANAGE WASH

The use of a households one's own funds for maintenance of drinking water sources increased substantially from 11% at baseline to more than three-fourths at end-line (Annex E, Table 33). Given the lack of changes in the socioeconomic status of people in this region, one explanation behind this trend might be the enhanced knowledge surrounding the importance and commitment of maintaining one's own drinking water source transferred by WASHplus activities. Many of the tube wells visited during qualitative field work were observed to be well maintained by either a caretaker or the households who used it.[34]

CDFs were created in order to enhance the community's ability to maintain WASH facilities and services. CDFs aimed to generate a community-level WASH fund, which would then by compiled at the ward-level. At end-line, respondents were asked if they had contributed to a community fund for the installation, operation, or maintenance of a water point that was installed in the past three years, and it was revealed that very few had done so (8%) (Annex E, Table 34). Among those who did not, their main reasons were that they were not asked to contribute (59%), did not use the water source that was being installed or maintained (34%), or did not know about fundraising for the water source (15%). These findings suggest a continued need to disseminate information regarding CDF activities when it comes to raising funds for water point installation or repair. Qualitative interviews revealed that CDFs faced challenges in continuing their work given the lack of incentives and thus, another explanation behind this finding could be the decline of CDF activities in the area.

During qualitative interviews, one of the main challenges identified by caretakers was the excessive use of the tube wells, beyond their user group capacity, which contributed to frequent breakdowns. Additionally, people outside the planned user groups also used the tube wells and often did not take ownership over their maintenance and repair.

The maintenance and repair of latrines since installation rose in all the upazilas. Noticeable increases from baseline to end-line were observed with the rise in rings being set and new pits being dug (Annex E, Table 19). WASHplus utilized the CLTS[35], which galvanized people to use their own funds and time to rehabilitate and build latrines. GIs and FGDs with WASHplus beneficiaries found that involvement in CDFs and Mother groups as well as the PNGOs motivated beneficiaries to repair their own latrines.

[34] During tube well site visits the evaluators looked for the quality of construction, depth, whether the discharge water smelled bad or had too much iron. The team also observed turbidity and how easily the hand of the tube well operated, such as how tight it was when pressed down. The platform construction was also examined and how the water moved into the drainage, i.e. if there was any pooling of water near the platform. Finally, if there is a water quality testing apparatus, the water was tested for arsenic, saline, and fecal coliform.

[35] CLTS is recognized by the Bangladesh governments as the most appropriate strategy to inspire and empower rural communities to stop OD and to build and use latrines" (Kar and Pasteur, 2005). It uses participatory methodologies to develop awareness of the risks of OD and facilitate community self-analysis of their health and sanitation status. Its aim is to ignite" communities to cease OD and commence toilet construction using local materials. CLTS has been recognized by the United Nations as one of the most effective approaches to promoting sanitation and achieving the MDGs for sanitation (Ahmed, 2008).

SUB-IR 2.2: INCREASED UP ALLOCATION OF RESOURCES FOR WASH

A UP or union council forms the lowest local government unit in Bangladesh. Each union is made of nine wards, and usually one village is designated as a ward. The UPs are responsible for administration of the wards and through their Annual Development Plan (ADP) branch, they are tasked with development of infrastructure facilities and services relating to health, education, water, sanitation, drainage, roads, natural calamity and environment.[36] Annual development budgets are finalized with participation of community stakeholders and are open to the public. Water and sanitation (WASH activities are included in the union's portfolio.[37] The UP allocates the budget for Ward WWC committee activities at the ward level. The DPHE implements WWC activities by installing tube wells, latrines, distributing rings, slabs for hygienic latrines, occasionally providing awareness trainings and performing maintenance work as required.

Sub-IR 2.2 of the WASHplus Results Framework is to increase UP allocation of resources for WASH, feeding into IR-2, to increase sustainability of WASH services. This evaluation collected data on annual plan and budget from the 22 UPs from two fiscal years; 2013-14 and 2014-15. These data were compared with data from fiscal year 2012-13 which were collected at baseline.

Overall, UP resources for WASH activities appears to have increased dramatically during WASHplus implementation, both in terms of budgets and in terms of having WASH plans in place in each union. These changes have the potential to positively impact sustainability of WASHplus activities in these unions, as local resources and capacity are generated for planning and implementation of WASH interventions. Qualitative interviews with PNGOs found that the UPs were involved in site selection for hardware installation and interviews with the UPs confirmed that WASHplus had spurred their interest in WASH activities. Results are described in detail below.

Over the period of time when WASHplus was implemented, the amount of funding for WASH activities substantially increased, in absolute terms (Table 5, Table 6). Across all 22 unions, the amount of funding in 2013-14 represented an approximately doubling of financial resources allocated for WASH, compared to 2012-13. This can also be seen in the average WASH budget per union, which also approximately doubled compared with baseline over the same period. Note, however, that funding levels decreased slightly between 2013-14 and 2014-15, though the 2014-15 resources still represented an approximate doubling, relative to baseline. In addition, although absolute values increased, the percentage of WASH-allocated budget out of the total UP budget decreased over the two fiscal years, compared with baseline, as the total UP development budgets increased overall over these years. The range of WASH allocations also increased, as both minimum and maximum allocations increased over the period in question. This would be expected given annual changes in inflation and the cost of living.

[36] A UP consists of a chairperson and twelve members including three members exclusively reserved for women. As per the democratic set up of the Union Parishad, development meetings are chaired by the UP chairperson and attended by all UP members and community members.
[37] Members of each ward's WWC committee visit every household and prepare a list of poor, disadvantaged and deprived households to identify who should be the beneficiaries of WWC assistance. Through WWC committee meetings beneficiary households are selected from this list. The meetings are also used to select location of community tube well. Occasionally they are involved in spreading awareness about use of safe drinking water and hygienic latrine through meetings and discussions.

WASH budgets increased year-on-year in most unions:[38] 61% of UP WASH budgets increased in 2013-14 relative to 2012-13, and 68% of UP WASH budgets increased in 2014-15 relative to 2013-14; 47% of UPs increased WASH budgets in both fiscal years. Two UP WASH budgets declined in both fiscal years after baseline, including Dal Char and Ratandi Taltoli.

As mentioned above, the increase in absolute value of funds allocated to WASH over the period in question is substantial; since UP development budgets also substantially increased during these years, the overall percent of WASH-allocated funds out of the total development budgets actually decreased in several cases. Since budget figures for FYs 2013-14 and 2014-15 are more similar relative to the baseline year, generally the changes are more pronounced between 2013-14 and 2012-13, compared with 2014-15 and 2013-14. Again, these trends reflect an overall expansion in development activities. The budget for all activities comes from ADP or Local Government Support Project (LGSP) or both and has remained the steady source for all three recorded years.

Qualitative interviews with UPs confirmed that WASHplus spurred their interest in WASH activities, but they still often faced budgetary constraints as they could not accommodate the people's need for tube well and latrine construction. Interviews with DPHEs confirmed that the UPs recently had to forgo hardware installation at schools and bazaars due to government budgetary constraints. It was not clear how funds were spent.

At baseline, very few unions had an annual WASH plan. However, the following two fiscal years, there was a substantial increase in the percent of these unions with WASH plans: in FY 2012-13, less than a third (32%) of the WASHplus unions had WASH plans, but in FY 2013-14, 95% of unions from which data was obtained had WASH plans in place, and in FY 2014-15, 100% of unions from which data was obtained had WASH plans in place (Table 8).

Project documents showed that all the 22 unions had received training on WASH budget planning and implementation through WASHplus. Qualitative interviews confirmed that WASHplus activities spurred interest and commitment to WASH activities at among the UPs.

Table 5. WASH-allocated budgets across all WASHplus unions, FYs 2012-13 through 2014-15

Total WASH funds in all unions (Tk)	**8,116,149**	**16,163,788**	**14,987,683**
Avg. WASH Budget per union (Tk)	**430,850**	**858,189**	**847,551**
Avg. % WASH-allocated funds in eac	**12.9%**	**9.4%**	**8.7%**
WASH Budget-Min	**70,000**	**100,000**	**100,000**
(Union)	Lalua	Kalagachia	Kalagachia
WASH Budget-Max	**960,000**	**2,791,000**	**3,240,000**
(Union)	Champapur	Rasulpur	Rasulpur

[38] Among unions with available data for comparison.

Table 6. WASH-allocated budget (Tk), by union and FY

		WASH-allocated budget (Tk)			
Upazila	**Union**	**2012-13**	**2013-14**	**2014-15**	**Trend**
Char Fasson	Aminabad	643,721	622,000	784,000	
Char Fasson	Char Kukri Mukri	500,000	141,450	241,450	
Char Fasson	Char Manika	270,000	2,111,250	217,150	
Char Fasson	Dhal Char	500,000	455,150	332,315	
Char Fasson	Ewajpur	185,750	300,000	450,000	
Char Fasson	Hazarigonj	541,000	1,950,227	2,046,834	
Char Fasson	Osmanganj	198,000	300,000	600,000	
Char Fasson	Rasulpur	564,542	2,791,000	3,240,000	
Daulatkhan	Char Khalifa	205,000	2,030,000	270,000	
Daulatkhan	Char Pata	269,000	1,000,000	800,000	
Daulatkhan	Dakkhin Joynagar	200,000	480,000	500,000	
Daulatkhan	Madanpur		400,000	450,000	
Daulatkhan	Saidpur				
Galachipa	Bakulbaria	292,000	550,000	600,000	
Galachipa	Golkhali	762,000	347,311	400,000	
Galachipa	Kalagachia		100,000	100,000	
Galachipa	Ratandi Taltoli	210,000	200,000	150,000	
Kalapara	Chakamoiya	287,445		1,635,947	
Kalapara	Champapur	960,000	716,709		
Kalapara	Dhankhali	787,691	787,691	1,269,987	
Kalapara	Dhulasor	740,000	881,000	900,000	
Kalapara	Lalua	70,000	1,000,000	1,963,331	

Table 7. WASH-allocated funds out of total UP budgets (%), by union and FY

		Budget: % WASH/total		
Upazila	**Union**	**2012-13**	**2013-14**	**2014-15**
Char Fasson	Aminabad	21%	24%	21%
Char Fasson	Char Kukri Mukri	24%	6%	9%
Char Fasson	Char Manika	10%	18%	2%
Char Fasson	Dhal Char	26%	21%	14%
Char Fasson	Ewajpur	7%	7%	7%
Char Fasson	Hazarigonj	27%	8%	8%
Char Fasson	Osmanganj	6%	2%	5%
Char Fasson	Rasulpur	18%	18%	47%
Daulatkhan	Char Khalifa	6%	16%	2%
Daulatkhan	Char Pata	6%	9%	8%
Daulatkhan	Dakkhin Joynagar	6%	4%	4%
Daulatkhan	Madanpur	nd	5%	5%
Daulatkhan	Saidpur	nd	nd	nd
Galachipa	Bakulbaria	4%	6%	5%
Galachipa	Golkhali	13%	4%	1%
Galachipa	Kalagachia	nd	1%	1%
Galachipa	Ratandi Taltoli	6%	6%	1%
Kalapara	Chakamoiya	6%	0%	13%
Kalapara	Champapur	23%	14%	0%
Kalapara	Dhankhali	14%	13%	9%
Kalapara	Dhulasor	21%	7%	7%
Kalapara	Lalua	1%	8%	13%

	Increase from previous FY
	Decrease from previous FY
	No change
nd	No data

Table 8. WASH plans in place, by union and FY

		WASH Plan		
Upazila	**Union**	**2012-13**	**2013-14**	**2014-15**
Char Fasson	Aminabad	No	Yes	Yes
Char Fasson	Char Kukri Mukri	No	Yes	Yes
Char Fasson	Char Manika	No	Yes	Yes
Char Fasson	Dhal Char	No	Yes	Yes
Char Fasson	Ewajpur	No	Yes	Yes
Char Fasson	Hazarigonj	No	Yes	Yes
Char Fasson	Osmanganj	No	Yes	Yes
Char Fasson	Rasulpur	No	Yes	Yes
Daulatkhan	Char Khalifa	No	Yes	Yes
Daulatkhan	Char Pata	Yes	Yes	Yes
Daulatkhan	Dakkhin Joynagar	No	Yes	Yes
Daulatkhan	Madanpur	No	Yes	Yes
Daulatkhan	Saidpur	No	nd	nd
Galachipa	Bakulbaria	No	Yes	Yes
Galachipa	Golkhali	Yes	Yes	Yes
Galachipa	Kalagachia	No	Yes	Yes
Galachipa	Ratandi Taltoli	No	Yes	Yes
Kalapara	Chakamoiya	Yes	No	Yes
Kalapara	Champapur	Yes	Yes	nd
Kalapara	Dhankhali	Yes	Yes	Yes
Kalapara	Dhulasor	Yes	Yes	Yes
Kalapara	Lalua	Yes	Yes	Yes

Q2: SUSTAINABILITY OF WASHPLUS ACTIVITIES

Q2. Which institutional capacities, systems and linkages and which household practices and behaviors, are likely to be sustainable? Are the sustainability plans for maintenance, repair, and security of current infrastructure improvements (both water points and latrines) adequate to ensure activity success? To what extent have behavior change approaches been integrated into NGO and government practice?

WASHplus Activity documents report that the project had been handed over to the local government between January to March of 2015. This handover consisted of transferring their WASH strategy, ODF declaration, and any ongoing WASH-related information or training sessions.

The main gaps with government service providers (UPs, WWCs, and DPHE HQ and district level engineers) prior to WASHplus implementation were the lack of capacity and flexibility to plan, finance, and implement WASH projects in the region. Through hardware installation, WASHplus reduced the burden the government faced in meeting local demands. However, UPs and the DPHE confirmed continued financial limitations, which has implications on their ability to meet future demand for hardware and maintain current WASH structures. Additionally, project documents showed that all 22 UPs received training on WASH and on planning and budgeting.

WASHplus also invested heavily in building the capacity and linkages between stakeholders. Project documents and qualitative interviews confirm that PNGOs, local entrepreneurs, facility caretakers, community volunteers, DPHE, WWCs, and CDFs received training. PNGOs received the most training, which defined their roles and responsibilities, oriented them to the WASHplus behavior change communication strategy, and helped them plan for infrastructure installation. Local entrepreneurs received training on latrine installation and received free or discounted materials to sell to community members. Facility caretakers received training on maintenance and along with local entrepreneurs, were linked with the community. However, interviews with project beneficiaries showed that the link with local entrepreneurs is not strong as most people seek contractors on their own to install latrines. CDFs received training on leadership and advocacy so they can identify gaps in WASH service in their community and advocate on behalf of their community. Qualitative interviews with community members suggest that the training community members received increased their motivation to take ownership of WASH infrastructure and to advocate for their WASH rights with the government.

Another method of promoting sustainability of WASH facilities by creating linkages within the community included establishing a pair of facility caretakers (male and female pair) for each user group of tube wells, whose names would then be publicly disseminated. Each user group member (classified according to their level of poverty) would raise 20% of the value of a deep tube well along with the caretaker. Interviews with user groups and caretakers found that caretaker groups also had toolkits and managed minor repairs as necessary. Based on the survey results, at end-line almost two-thirds of respondents knew at least one facility care taker's name, but 27.6% still did not know any names. This may reflect either the lack of community facility caretakers at end-line or the actual lack of knowledge of their names due to poor circulation of this information.

However, all of the tube wells visited during qualitative field work did have a caretaker or caretaker group as reported by the community members.

PNGOs expressed concern over the sustainability of Mother Groups and volunteers, who have been critical in changing behavior in the area. As part of CDFs, it was expected that Mother Groups continue their outreach work through home visits to continue promoting appropriate handwashing behavior and the installation of latrines. However, members of Mother Groups faced challenges in continuing their work without incentives and due to the workload of activities they were expected to do for the project. Women explained the difficulty in continued participation in the Mothers Group due to competing household tasks. Respondents reported that home visits, during which mothers disseminate WASH and health information, had declined since the end of the project.

With WAB as the main in-country partner, the four PNGOS were mainly responsible for field activities. Thus, this linkage and system is perhaps one of the key components in the sustainability of the project. However, qualitative interviews reveal that the PNGOs do not have the ability to continue their work in the upazilas as they did during the life of the project. This had mainly been due to their own lack of capacity and the remoteness of these villages, which make it difficult for the PNGOs to routinely serve the people. For example, the AWAS regional office is in Barisal and not in Kalapara. DORF and DAM no longer have a district office since the end of the project. Qualitative interviews also confirm that the PNGOs have already stopped some of their activities such as motivating and working with the CDFs, which played a key role in mobilizing community members. Interviews with FHI 360 and WAB confirmed that they did not expect the PNGOs to continue with WASHplus activities after project close-out.

Despite these drawbacks, households in WASHplus Activity areas underwent positive behavioral changes regarding handwashing, soap use, OD when latrines are flooded, and hygienic upkeep of latrines as well as disposal of fecal sludge from latrines. According to qualitative interviews, PNGOs believe that the changes in behavior can be sustained. They observed an increase in people building their own household latrines, which is evidenced by findings from the household survey. Additionally, they cite that despite the decline in activities by the PNGOs in the four upazilas, community members still want the PNGOs to continue their WASH services in the community. This shows a continued commitment of the people to improve their WASH situation.

Qualitative interviews with beneficiaries also demonstrated that they had a high recall of many SDAs such as safe water handling, consistent and correct handwashing at critical junctions, and safe and hygienic disposal of adult and infant/child feces. However, there was little to no recall or understanding of menstrual hygiene or the relationship between sanitation and hygiene to stunting and undernutrition of infants and children under five years.

Sustainability plans for infrastructure within the government and among the PNGOs remained unclear during the end-line survey. As stated above, the PNGOs lack capacity to continue many of their activities and some of the UPs faced budgetary constraints when it comes to WASH programming, although as seen above UP budgets increased in absolute terms since the beginning of the WASHplus activity. UPs confirmed that they had a greater interest in addressing WASH

issues due to the WASHplus Activity. Qualitative interviews also revealed no resistance among government officials in implementing WASH activities.

Even though the transfer of the WASHplus strategy to the government had occurred during closeout, qualitative interviews with WAB revealed that the WASHplus strategy had not yet been integrated with the local or national government WASH strategy. Possible actions in integrating the strategies include using similar indicators, which will facilitate planning and coordination. For example, WASHplus uses the JMP definition whereas GOB uses the Bangladesh definition of basic and improved, which provide more context to Bangladesh's sanitation situation. In the government strategy there should also be direct project supervision by the DPHE technical personnel. Above all, all WASH projects should be easily transferred to the DPHE which would own the project after the completion of implementation.

Qualitative interviews confirmed that the CDF linked community members with union facilitators and WASHplus volunteers. These stakeholders also reported that they were able to communicate with government officials at the union level openly, which indicates a possible enhanced ability to advocate with government officials. Increased advocacy among community members would ensure the continued government commitment to WASH infrastructure and future sustainability plans for WASH infrastructure.

The sustainability of newer WASH infrastructure is not yet a concern among most community members. However, the DPHE expressed concern over the need for maintenance of pre-WASHplus installed hardware.

Q3: WASH AND NUTRITION INTEGRATION

Q3. How successfully were the strategies to integrate WASH and nutrition programing executed? What barriers and what enablers were found related to the integration of WASH and nutrition programming?

A strong link exists between water, sanitation, hygiene and health; access to clean drinking water links to diarrhea, intestinal infections, and nutritional status. Persistent diarrhea among children increases the risk of under-nutrition and stunting. WASHplus developed a strategic partnership with the USAID's Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) and SHIKHA to integrate WASH and nutrition activities in Daulatkhan and Char Fasson, where these two projects are implemented. WASHplus aimed to construct WASH facilities in these regions and integrate feasible but effective WASH behavior that related to health into SPRING and SHIKHA's nutrition programming with the overall goal of improving child health outcomes. The theory behind this integration was that by improving the understanding of WASH's role in child growth and nutrition, SHIKHA and SPRING would better integrate and target WASH practices within their activities.

There are limitations in assessing the integration of WASH and nutrition programming as the WASHplus strategy did not specify certain indicators to measure integration. Integration was broadly defined as overlaying WASHplus activities in SPRING and SHIKHA project upazilas and promoting WASH behaviors within SPRING and SHIKHA's nutrition programming. Project documents report that USAID formally requested that WASHplus integrate their activities with

USAID's SPRING and SHIKHA projects in 2015 (January-March 2015 quarterly report), after the March 2013 start date of the WASHplus Activity. FHI 360 confirmed that the WASH and nutrition integration activities will continue until May 2016.

The main enabler of the integration was the obvious link between WASH and nutrition, which could easily be combined in SPRING and SHIKHA's existing programs. For example, SPRING and SHIKHA were already promoting proper handwashing behavior and handwashing device installation in the areas they worked when the integration began.[39] A DR of the quarterly report from April to June 2014 showed that WASHplus organized a national level nutrition workshop with the focus on safe disposal of infant feces, which was attended by the World Bank, International Center for Diarrheal Disease Research, Bangladesh (ICDDR,B), SHIKHA, and SPRING. They also organized and delivered a two-day training on WASH behaviors and their relation to nutrition and child growth to the PNGOs.

Nevertheless, qualitative interviews with PNGOs revealed that they were not able to identify the link between WASH and nutrition (i.e., the link between diarrhea and stunting and child development), and they also reported not receiving adequate nutrition training. Even though the WASHplus strategy was to integrate WASH activities into SPRING and SHIKHA's nutrition programs, it was the PNGO's responsibility to facilitate this integration in the field and thus, it was equally important that they were adequately trained. Qualitative interviews with SPRING also revealed that they expected WASHplus to have more nutrition components.

These findings indicate a possible disconnect between WAB, SHIKHA, SPRING, and the PNGOs during the planning and implementation phases. Another disconnect identified by the PNGOs was the lack of a partnership with other important nutrition actors in the area such as Save the Children and Helen Keller International, which were identified at the start as potential partners. The PNGOs cite a lack of action on the part of WAB to link with these other actors despite their requests and willingness to implement a nutrition component.

The evaluation team identified that WASHplus lacked a link with the Department of Public Health Engineering (DPHE). Qualitative interviews revealed that while the ministry has worked with other partners in the areas including Save the Children, World Food Program (WFP), and UNICEF on school feeding programs, health, and nutrition programming, they had not worked with WASHplus. Some other programs or activities the DPHE had been involved with include working with dispensaries in the upazilas to address health issues such as stunting and malnutrition, the Infant and Young Child Feeding (IYCF) program, Food and Nutrition Directorate and the Institute of Public Health and Nutrition, and the Essential Program for Immunization (EPI). The DPHE was also familiar with the Community Approach to Total Sanitation (CATS) rather than CLTS, which was promoted by WASHplus. These findings suggest that a strong link between WASHplus and the DPHE did not exist, which could have had many positive effects given the DPHE's involvement with various partners and projects in the area.

[39] USAID. WASHplus. WASHplus Behavior Change Strategy. 12 Dec. 2013.

Q4: GENDER STRATEGIES & EQUITABLE PARTICIPATION

Q4. Are design and implementation of the gender strategies considered adequate and appropriate? How did (and which) activity interventions facilitate and/or inhibit equitable participation of men, women, boys and girls?

Water, sanitation, and hygiene projects are directly linked to many gender issues. Similar to the rest of the country, women in the four upazilas are mainly responsible for finding and fetching water and thus, face the burden of traveling to water sources and spending a significant amount of time on this activity. Improving access to water in rural Bangladesh reduces the time women and girls spend on water collection and can affect girls' attendance in school and women's involvement in income generating activities. Sanitation facilities in school impact girls' school attendance because their safety is maintained and menstruating girls can access facilities during school hours.

Review of project documents did not present evidence that the design of the project incorporated a gender analysis, whereby gender disparities (decision-making, access to resources, workload, etc.) were presented in the context of the project. A DR shows that at the launch of WASHplus, deputy directors of various government sectors including people from the Ministry of Women and Children's' Affairs were in attendance. However, project reports did not clearly lay out their role within WASHplus. Another planning activity that WASHplus undertook were CSA. Qualitative interviews with beneficiaries found that women, men, and youth reported equitable participation in the CSAs.

Given that CDFs were comprised of community members, the evaluation team also assessed their organization for any gender issues. Most CDFs were comprised of a Chairman, Deputy Chairman and Secretary. Women were found to be appointed as a Secretary in most cases. There was one reported case of a female chairperson and a female deputy chairperson, but neither were interviewed. Project reports state that by December 2013, 1,206 CDFs were established to assist communities implement their action plans. Each CDF had five to nine members of which 30% were female.

Mother Groups were another important component of WASHplus to target primary caregivers of children under five, who had the highest risk of mortality from diarrhea-related illness. Changing the behaviors of mothers would in theory improve the health of children and the family since mothers are mainly responsible for fetching and storing water, cooking, cleaning, and the disposal of fecal matter. In qualitative interviews with Mother Groups, they stated that they did not have office bearers. They also stated they felt overburdened by the workload of house visits, which took them away from their normal household duties. They expressed concern that they did not receive incentives like the other community groups such as CDFs and Facilitators. However, women reported during the qualitative interviews that they were satisfied with WASHplus as it taught them about important knowledge on hygiene, sanitation, handwashing, water fetching, and water storage. They also showed an understanding of the ease of disposing menstrual waste and infant feces in household latrines and pits. Nevertheless, they reported the continued challenge of getting clean water. This was also reported by the DPHE and at district level. Project reports showed that Menstrual Hygiene Day was also celebrated in the

communities. Organized by the PNGOs, discussions were held to speak against taboos towards menstruation and discuss practical and logistical challenges women and girls faced in menstrual hygiene management. However, menstrual hygiene in terms of distribution of supplies and knowledge on proper use of sanitary napkins were largely missing from the project.

The WASHplus Activity also focused on men as they are usually the head of the household in rural Bangladesh and decide how family funds are allocated. One method of reaching men in this region included the dissemination of information at tea stalls, a common social space for men. Qualitative interviews found that men were satisfied with the project, particularly with the tea stall meetings. They were also satisfied with their improved access to clean water for cooking, which they contributed to an improvement in their health. One way men reported being involved in the project was financing household latrines and handwashing devices as well as being involved in the selection of tube well sites. Lastly, they stated their interest in continuing their involvement with WASH projects, but could not definitively say how they intend on continuing their participation. However, interviews with female volunteers of the project revealed their concern over the lack of willingness of men to become volunteers as women comprised the majority of volunteer groups. Furthermore, they said that male volunteers were not as active as female volunteers were and this caused conflict. One quarterly report (October – December 2013) stated that there were 341 volunteers of which 69 were male and 272 were female.[40]

As stated before, WASHplus recruited both male and female facility caretakers. The inclusion of women as female caretakers would allow female beneficiaries to voice their concerns freely with caretakers so their demands could be met. According to the quarterly report, (April-June 2014) 100 of the 200 caretakers were female. Women stated that this was their first experience working and they appreciated the ability to be engaged in this work. Qualitative interviews with caretakers also indicated that their position was well respected by locals.

Reaching youth and school children was another important component of the project, which was done through hard ware installation and WASH rallies at schools. Qualitative field work found that in cases where schools had received latrines and handwashing stands, many of the children were very aware of best hygiene and sanitation practices. However, this was more common in primary school children compared to secondary school children. According to interviews with school heads, the schools had not gone further to develop their own IEC materials as they said they could not afford the costs. They therefore had to rely on a single set of WASHplus booklets, sometimes shared amongst classes accommodating up to 600 students.

[40] The evaluation team includes lessons learned (learning) where stated in the quarterly reports.

Q5: BEST PRACTICES & LESSONS LEARNED

Q5. What are the best practices and lessons learned from WASHplus that could inform the design of similar activities in Bangladesh?

A common best practice identified by both WASHplus Activity documents and the final assessment is the creation of a strong link with local partners and government bodies during the planning and implementation phases. For example, WASHplus Activity reports identified that effective and timely communication between WASHplus and local governments helped hardware vendor selection and the site selection process. However, the evaluation revealed a disconnect between the PNGOs and nutrition partners, SPRING and SHIKHA, and the local government bodies working on health issues. Thus, integration of nutrition and WASH activities was not achieved to the best extent possible. Additionally, not only are linkages important, but projects must lay out clearly defined roles for every partner to ensure efficiency. MOUs with government, community structures, and local businesses are important and key to getting clarity on roles and other issues such as subsidization and cost sharing.

There are specific areas where the national government has to take a strong role, such as research on latrine and tube well structures and ensuring that projects follow expected standards. It is important to establish a strong official link with the DPHE so that government policy and technical knowhow can be fully transferred to the people, as the DPHE is the only government body dealing with WASH and its allied components. Adequate integration between the various IPs and PNGOs also allows for the sharing of tried and tested materials, including IEC materials. Any project in the area that targets gender issues should require the involvement of the Ministry of Women and Children's Affairs as well as other women groups who can support gender analysis. At the same time, ministries with the mandate to support given sectors (agriculture, health, public health, education) should be part of the project design.

PNGOs should also have the necessary background, capacity, and linkages to national and district level stakeholders in order for them to implement interventions, which are in line with government strategies. In cases where community entry points are already established from past donor projects and have a history and expertise with the community, new projects should build on this experience rather than creating new systems. Community-level participation strategies, using tried and tested techniques such as CLTS and CATS, and innovative women and child friendly messages need time to be developed and have a cost factor. These strategies can generate community participation including cost sharing if incorporated at the onset of a project.

Inclusion of men in specific activities is important to sustain the benefits of a project, especially since men have control over decision making for household structures, food and health seeking behavior in rural Bangladesh. Morbidity and mortality rates of pregnant lactating women and under-fives have to be understood in the context of under nutrition and diseases and conditions such as anemia and subsequent stunting. The various factors affecting poor women and their reproductive health status have to be addressed and factored into a theory of change.

When a project is highly complex and includes infrastructure development and behavior change, a longer implementation period is best. Many of the WASHplus activities included behavior change communication strategy, which requires a longer time period to see substantial changes.

Inclusion of research components into WASH/Nutrition projects is important and if done early in a project, can contribute to its implementation. The latrine sand filtration study in Galachipa is one example. A new project has to keep up with plans by the government to improve tube well design and test handwashing devices which are innovative and easy for women to clean.

In disaster prone areas subject to daily tidal fluctuations the design for tube wells and latrines has to consider higher plinths. If the households to be supported are situated below ground level with a risk of flooding, a portion of the household has to be raised and construction should be made accordingly with sufficient flexibility during implementation. There has to be a strong integration of projects such as WASHplus with disaster risk reduction interventions factored in, as such projects are located in disaster prone areas.

CONCLUSIONS

Q1: To what extent was the WASHplus Activity successful in achieving its objective, intermediate results, and sub intermediate results?

WASHplus met its hardware installation targets as they report that its activities led to the construction of 670 deep tube wells, 30,929 latrines, and 41,114 handwashing devices. WASHplus IPs estimate their efforts led 94,200 people to gain access to clean water and 154,729 to gain access to sanitation facilities and certified that 653 communities were ODF by June 2015. The proportion of households using an improved water source increased significantly from the baseline to end-line survey, and the project met its target. However, the ratio of people using a single water source, the distance to the main water source, water fetching time, and distance between handwashing devices and latrines still need to improve. Although the proportion of households using improved sanitation facilities rose significantly, the project did not meet its target. Similarly, although the proportion of households with a functional handwashing device with water and soap and the proportion of households practicing safe disposal of child feces significantly improved, the project did not meet its targets. Lastly, diarrheal illness among children under five years old significantly declined overall, but the project's target was not met. No noticeable differences in diarrheal prevalence existed between improved and improved water and sanitation facilities.

Under FHI 360 and WAB's leadership, the PNGOs developed strong footing within the communities. Their use of community-driven approaches including CLTS, CDFs, and Mother Groups, to name a few, led to knowledge dissemination of important hygienic practices and behavior change with respect to handwashing, water storage, and OD. The practice of OD not only reduced overall, but people also reported very low rates when latrines were flooded.

Community members also took ownership over the maintenance of water points and sanitation facilities. There was an increase in people using their own funds to maintain drinking water points. The maintenance of latrines also increased and many of these changes showed a move toward an improved sanitation facility. Community caretakers also learned how to operate and repair tube wells. Altogether these changes show the potential for sustainable WASH infrastructure in the upazilas. However, local community funds were not generated to the extent expected to sustain the work of volunteers and Mothers Groups, who are critical promoters of behavior change. Additionally, without MOUs with the government and community institutions, issues of maintenance and cost sharing were not spelled out and may pose a future challenge.

—

Question 2: "Which institutional capacities, systems and linkages and which household practices and behaviors are likely to sustain? Are the sustainable plans for maintenance, repair and security of current infrastructure improvement (both water points and latrines) adequate to ensure success? To what extent have behavior change approaches been integrated into NGO and government practices?

WASHplus decreased the workload of the UPs and DPHE and reinvigorated cooperation between UPs, WWCs, and the public on WASH activities. The UPs, WWCs, and DPHE engineers bought into the WASHplus concept of partnering together and using the CLTS approach to get communities to use their own funds for SDAs, such as improving their household latrines and using tippy taps. This high level of buy-in was exhibited in the government's participation in market meetings, national hygiene days, and in the selection of tube wells and community latrine sites. They also worked with the CDFs on planning processes and measuring the ODF status of the communities. Despite this, some of the UPs still report financial challenges in meeting the WASH demands of the public. Additionally, even though the transfer of the WASHplus strategy to the government had occurred during closeout, the WASHplus strategy had not yet been integrated with the local government WWC strategy. The adaption of a new strategy may require more than close-out transfer and getting government ownership may not be easy.

There have been no major changes in government policy with respect to WASH practices and the government continues to promote the GOB improved definition of standards. The project has brought many issues to the attention of the government, such as the impact of messages on peoples' interest in ODF and various WASH practices. The government realizes the need for several ministries to cooperate to address waterborne illnesses, stunting, and anemia.

The strength of certain linkages created by the WASHplus Activity remain in question. For example, although local entrepreneurs were trained on latrine installation, the community members sought out local contractors on their own. However, most people knew the names of facility caretakers. PNGOs expressed concern over the sustainability of Mother Groups and volunteers, who have been critical in changing behavior in the area. These stakeholders faced challenges in continuing their work without incentives and due to their competing priorities between the home and WASHplus activities such as home visits. Lastly, even though the PNGOs have become trusted and accountable entities within the communities regarding WASH services, they lack the capacity to continue many of their activities and have begun to halt some of their activities. Even if PNGO close-out is common in many development projects, at this point no clear transfer of the WASHplus Activity either to PNGOs or government partners has been found during this evaluation and thus, questions about sustainability remain.

—

Question 3: "How successfully were the strategies to integrate WASH and nutrition programming adequate? What barriers and what enablers were found related to the integration of WASH and nutrition programming?

The project was not successful in developing a clear strategy to integrate WASH and nutrition programming. Their strategy was broadly to integrate WASH into SPRING and SHIKHA's nutrition programming, but no clear set of indicators or activities on this integration scheme were reported on. An enabler of this integration was the ease with which it is possible to combine WASH and nutrition programming, given how interconnected they are. What would have further enabled their integration was if implementers familiarized themselves with other local partners and government actors and activities in the area to understand clear methods of WASH and

nutrition integration and where they can interject. There was effort at the onset to partner with other actors working in the area, but this did not occur.

—

Question 4: Are the design and implementation of the gender strategies considered adequate and appropriate? How did (and which) activity interventions facilitate and/or inhibit equitable participation of men, women, boys and girls?

The project did not present evidence that a gender analysis was conducted in order to inform the design of the project. However, the project did incorporate a gender lens in some of its activities. CSAs were held prior to implementation and they encouraged the participation of both men and women. However, it is not clear how different the views of men and women were and how these differences were reconciled. Mother Groups were established to disseminate information among primary caregivers who are important actors in ensuring safe and clean water and food preparation. Nevertheless, this looks at women's role mainly as the primary caregiver and neglects adolescents. Project documents did not reveal clear activities related to menstrual hygiene, a missed opportunity especially since WASHplus worked with some schools.

Although there were some cases of women leading CDFs, in the majority of cases women held the Secretary position. The project did not specify how these positions within the CDFs were determined. Both male and female community members (members of CDFs, volunteers, facility caretakers) received training, but it is not clear how the training curriculums differed and how the project ensured training and motivation was women-friendly and child-friendly.

The caretaker position facilitated the equitable participation of both men and women as both men and women received training on tube well maintenance. For many women this was the first time they received formal, technical training. Entrepreneurs producing latrine parts were all male, except for one case where a woman ran the business. Not having specific roles for male heads of households did inhibit equitable participation of both men and women and contributed to a general male reluctance to take up more volunteer positions.

—

Question 5: What are the best practices and lessons learned from WASHplus that could inform the design of similar activities in Bangladesh?

There are several best practices and lessons learned from WASHplus. The value of working with UPs to support selection of tube well sites and local entrepreneurs was clear. It is best practice to work with local and trusted PNGOs and partners who know the communities and live amongst them. It is also best practice to link with government ministries best placed to address gender issues and established local groups who are working in health and nutrition to reduce overlap of activities and to increase efficiency. Lastly, it is important to note that SDAs are capable of changing in a shorter implementation period.

RECOMMENDATIONS

The following recommendations are made based on the findings and the conclusions of the evaluation. They are listed in order of priority as determined by the evaluation team. They are to be addressed by USAID in the immediate future as shown below:

Integrate a new project design template as a requirement for awardees and IPs to better plan for project implementation and for the CDCS to monitor. The evaluation team identified gaps in identifying, linking, and sustaining partnerships with government, non-governmental, and community institutions at the onset of WASHplus. These contributed to the project being linked only to WASH partners, but not to partners working in the nutrition or gender sector. Some areas that are not included in the project documents that should be factored into future project design proposals include the following:

- Clearer linkage of the proposed program and activities to the Results Framework
- Clearer linkage of the proposed program to the focus areas of WASH and nutrition with well-defined indicators to measure integration
- Expected outputs disaggregated by WASH, nutrition, and gender indicators
- Project alignment to national priorities and strategies- Minimal standards for water and sanitation, Infant and Young Children Feeding (IYCF) and global strategy- Vision 2030[41]
- Theory of Change with assumptions and specific target groups (men, women, boys, girls, disabled), strategies, and outcomes
- Stakeholder mapping that incorporates the topics of gender, WASH, nutrition as related to mothers, infants, children, and adolescents, indicating how stakeholders are relevant to a proposed WASH/ nutrition project and the effect they will have
- Baseline information-strategic needs of men, women- child brides, women in polygamous and seasonal marriages, female heads of households, widows, pregnant, lactating women, boys, girls, infants- disaggregated by age and vulnerability to under nutrition, anemia, and vulnerability to environmental enteropathy and stunting
- Risk analysis
- Governance/management structure to reflect capacity in WASH and nutrition
- Replication strategies- gender and youth strategy, environmental and social safeguards
- Documents that clearly outline the roles of all partners (MOUs, etc.)

The evaluation team was advised that the CDCS is under revision. The CDCS revision process may be appropriate timing to consider an improved project proposal template and identify a project approval process. There will be resource implications as expertise from the sectors of health, public health, WASH, nutrition and monitoring, and evaluation will need to be part of this.

Link a new design template to emerging knowledge and learning coming from the implementation of WASHplus and from other sources.[42] The evaluation team draws attention to the lessons learned and best practices of WASHplus as outlined above in the report

[41] The CDCS should study Vision 2030. Mujeri, M.K. (2014). Vision 2030: What lies ahead for Bangladesh in a Post-MDGs World?
[42] Claire, Chase. et al. Multisectoral Approaches to Improving Nutrition; Water, Sanitation and Hygiene Feb 2016

and two key documents, namely the UNICEF/DPHE draft in progress, "Programmatic Responses to WASH and Nutrition" (December 2015) and "Multisectoral Approaches to Improving Nutrition: Water, Sanitation, and Hygiene" (February 2016). There is ongoing research being conducted in Bangladesh led by UNICEF and others on a new tube well design, SDAs, and sand filtration studies for latrines. There will be resource implications as expertise on knowledge and learning management will need to be part of this.

Ensure future projects (WASH/nutrition) set a MOU at national level, whether or not implementation is more focused at national, district, or divisional level. The national ministries concerned with health, public health, women, and youth and education have the ultimate responsibility for ensuring projects are in line with national strategies. The relevant ministries were not all involved to the extent needed. Their support is necessary to support the strategies and interventions planned.

Ensure future projects incorporate recent findings from research studies conducted in Bangladesh and globally. Examples of these studies include research linking women's workload, maternal and child nutrition status, the 1000-day approach developed by the DPHE, WB, ICDDR,B, and UNICEF, and its recommendations for meta-analysis of studies and models of all known nutrition interventions in Bangladesh, including Vitamin A and Zinc supplement, balancing energy protein supplements, complementary feeding, breastfeeding promotion, and micronutrient supplements in pregnancy. This would produce more effective WASH and nutrition service delivery. A second important study is the WB study, "Multisectoral Approaches to Improving Nutrition, Water, Sanitation and Hygiene" (2016), which recommends addressing the indirect determinants of under nutrition such as food insecurity, inadequate childcare practice, low maternal education, and poor access to health services.

Hold a national IEC materials development workshop on WASH and nutrition. Many of the materials used in WASHplus were written posters and were less likely to be understood by women, who have higher rates of illiteracy than men in this area. At the same time, posters and pictorials that were used were too few in number, apparently due to budget limitations. IEC materials need to show the linkage of WASH and nutrition clearly by focusing on some or all of the multiple determinants of undernutrition. The determinants should be disaggregated by sex, but also for sub-groups of females, such as pregnant and lactating women and infants from six months of age. The participants should include global, regional, national, and local stakeholders. It is also important for SHIKHA and SPRING to be present as they have developed IEC materials that can be shared. The Bangladesh's Institute of Public Health and Nutrition as well as UNICEF need to be present. The workshop should produce materials, which would then be tested. Some of the determinants of under nutrition that should be covered are dietary intake, disease, food insecurity, inadequate childcare practices, low maternal education, poor access to clean water and sanitation (as per GOB new improved standards definition), and poor hygiene.

Understand regional environment to feed into planning. The determinants of tidal changes, cyclones and other disasters such as flooding should be considered due to their effect on dimensions of tube wells and latrines. The design of future projects should consider the factors of seasonal and large scale flooding especially for low lying areas such as Kalapara. The maximum

flood level should be studied and considered when constructing a deep tube well or a community latrine. In the case of household latrines, a portion of the household should be raised above flood level before the latrine is constructed. This will also resolve the problems of high water tables that restrict the use of a minimum number of latrine rings. There will be resource implications for workshops, IEC distribution, and testing to be carried out.

Address gaps in quality of household latrines. There were some cases of household latrines in Kalapara that were defective and the households did not use the contractors recommended by the PNGO due to a lack of funds. There needs to be an inventory carried out of all WASHplus latrines to identify how many household latrines have this problem. This should be coordinated with the Mission Environmental Office to make sure tube well and latrine designs are sufficient to meet the USAID requirements. The motivation behind the USAID environmental regulations is to protect human health and the environment, and thus this issue is relevant to USAID policy. There will be resource implications for the repairs to be done.

Ensure mandatory 'contracting' is factored into the CAP process and agreements with local entrepreneurs and local wards. Under the policy of the National Ministry of Public Health and Engineering, user groups, local bazaars, and schools are responsible for the management and maintenance of the new tube well and latrine structures. This means user groups collect 20% of the value of tube wells as a buffer against breakdown. User groups, bazaars, and schools were not maintaining the new structures in most cases, indicating that they had not come to an agreement (contracting) with the PNGOs on their role. At the same time, local wards need to ensure that they have a 20% budget alignment to support WWC. The entrepreneurs were found in some cases not to be aware of their responsibility in providing subsidized services and discounts in return for the training and free latrine pans they received. Finally, if contracting had been done from the onset of the project, there would likely be less demand for incentives as were found in some cases. Future projects should go further in getting the user groups and bazaars to set up village savings and loans associations.

Build the technical and gender capacity of national and local government and PNGOs to manage projects. The evaluation noted that some training in gender nutrition and advocacy for PNGO staff was not provided. There were also no courses on technical aspects of WASH, nutrition or gender addressed to the national, district, and local governments, which would have built their capacity. Capacity building should also include training and short courses in conflict management, disaster preparedness, gender, and community dynamics for government, PNGOs and the communities. It is also important to get men more involved in development activities and WASH/nutrition projects and get more commitment from them to volunteer and do outreach activities, which also require specific trainings. Training and interventions for men would go far in reducing the workload of women. Additional courses directed at literacy and empowerment of women and girls would also be beneficial. There will be resource implications for the training to be designed and conducted.

Support the strengthening of the national WASH MIS/GIS. The evaluation team noted a general confusion on what constitutes 'access to safe clean water' and 'access to hygienic latrines'. In the case of tube wells and safe clean water, the MOPHE strategy emphasizes water

for multi-purposes, drinking, washing, and bathing. However, in the improved definition no more than 10 households (50 persons) should use a tube well. There are also specific definitions for a hygienic latrine. At present it is not known how many water points exist in the project areas and where they are located; WASHplus GIS files contain those built by the project but are not a comprehensive source of all water points and latrines in these areas. To aid in project design and implementation, appropriate geospatial data collection methods should be incorporated into the project so that WASH facilities can be mapped and assessed geospatially. This would include using flood prone mapping, soils maps, tidal extent, salinity, and arsenic maps etc. All of this information and much more can easily be used in project design if geospatial coordinate data is collected. If this method is used it can take care of the present exclusion of household clusters of less than 20 households. There will be resource implications for funding the operation and management of such a MIS/GIS system.

Support the very marginalized in future funding of WASHplus activities. In a very short period of time, WASHplus managed to change behaviors of many households. The project was directed at the very marginalized, especially by selecting tube well sites within clusters of 10 households situated close together. However, there are many smaller clusters with a few outreach households who also need improved water and sanitation facilities. They requested assistance but were left out due to the clustering method. Future projects should also include a number of these marginalized communities. There will be resource implications to identify the very marginalized, conduct CAPS, and install hardware.

Support approaches that prevent reversal of OD Free Zones. As research indicates that people can revert back to OD within a few years, there has to be more support to BCC approaches which achieve results in a short period of time. CLTS is recognized by the Bangladesh government as the most appropriate strategy to inspire and empower rural communities to stop OD and to build and use latrines. Future projects funded by USAID should therefore use participatory methodologies to develop awareness of the risks of OD and facilitate community self-analysis of their health and sanitation status.

ANNEXES

ANNEX A: EVALUATION STATEMENT OF WORK

1. BACKGROUND

Although most of the geography of Bangladesh is a deltaic plain through which three major rivers flow—the Ganges, the Brahmaputra and the Meghna—over 20% of the population lacks access to safe drinking water. In the dry season, one-third of the country suffers from water scarcity affecting both domestic use and irrigation. Additionally, 44% lack access to improved sanitation systems, such as covered latrines or flush toilets. In the southern coastal belt, an additional challenge is saline water intrusion that contaminates drinking water supplies. Access to safe water and sanitation is crucial for public health, in particular for children, who are more vulnerable to waterborne infectious diseases such as cholera, dysentery and diarrhea all of which lead to acute morbidity and under nutrition. USAID Bangladesh selected southwestern Bangladesh as the WASHplus Activity site because of the region's high incidence of water related diseases, poor nutrition indicators, absence of sustainable WASH service provision, and highly marginalized and environmentally vulnerable population. Its proximity to the Bay of Bengal makes this region particularly vulnerable.

The WASHplus Activity is designed to provide poor and marginalized communities with safe drinking water, improved sanitation and hygiene awareness in five remote upazilas (sub-districts) including the new upazila. WASHplus is a centrally funded activity awarded through USAID's Bureau for Global Health. The WASHplus activities in Bangladesh started in March 2013 and will be ending in September 2015. The activity is implemented by FHI 360 with a lead in-country partner-WAB Bangladesh (WAB). WAB further partnered with four local Non-Governmental Organizations (NGOs) for the implementation of the activity in four upazilas, and a fifth NGO is selected to allow for expansion into a new upazila in FY 2015. The local NGOs are: Development Organization of the Rural Poor (DORP), Dhaka Ahsania Mission (DAM), South Asia Partnership (SAP), and Association of Voluntary Actions for Society (AVAS); the fifth NGO for 2015 is Shushilan.

The overall goal of the WASHplus Activity in Bangladesh is to contribute to the improvement of human's well-being and dignity through the context of specific and scalable Water, Sanitation, and Hygiene (WASH) behavior change in the targeted areas. The WASHplus is being implemented its activities in the targeted four upazilas: Char Fasson, Daulatkhan, Galachipa, Kalapara and targeted to covers a population of 272,530. Since other water technologies (except hand tube well) were not feasible in the four target upazilas, WASHplus has expanded in the third year of the activity to one upazila in the Satkhira district, which has a crisis of drinking water. WASH plus does not have any baseline information on this expanded upazila and may not be able to achieve substantial results before the implementation of this evaluation. Thus, USAID has not included this fifth upazila within the scope of the evaluation.

WASHplus has the following objectives:

Objective 1: To reach poor and marginalized communities with sustainable safe water, sanitation, and with the promotion of hygiene by using locally appropriate technologies and approaches.

Objective 2: To build community and local government capacity in operating and maintaining water and sanitation facilities, demand increased allocation and pro-poor targeting of national and local government funds, and community contributions to ensure sustainability of activity interventions and impact.

Cross-Cutting Issue: Strengthen programming guidance for coordinated WASHplus-nutrition programming in Bangladesh.

Through this SOW, USAID/Bangladesh seeks a third-party to conduct a final performance evaluation to assess activity results and document lessons learned from the WASHplus Activity in Bangladesh.

2. PURPOSE

The primary purpose of this evaluation is to determine whether the assistance provided by USAID/Bangladesh through WASHplus activities is meeting its stated objectives, including whether WASHplus is meeting its expected results within the expected timeframe. In addition, in answering several specific evaluation questions, the evaluation will also assess activity results against the baseline; identify best practices, lessons learned, strengths, weaknesses, and constraints to sustaining activity achievements and approaches. The evaluation will also provide an in depth recommendations backed with strong analysis of data and evidences.

Evaluation findings will be used by USAID/Bangladesh to provide a better understanding of WASH programmatic relevance, impact, and effectiveness and inform future WASH & nutrition programming in Bangladesh. The timing of this evaluation is appropriate for recommending and suggesting future USAID priorities in WASH sector assistance in Bangladesh given the upcoming revision of Country Development Cooperation Strategy.

The specific evaluation objectives are to assess:

a. The overall key achievements, outputs and outcomes of the activity;
b. The effectiveness of the activity approach in achieving intended results;
c. The sustainability of the achievement and approaches, and potential for scaling-up;

Household level survey data will be collected and compared against baseline measurements to capture statistically significant differences from baseline. Thus, the same methodology used in the baseline to collect household level data must be replicated as part of this exercise. The methodology requires tracking household practices and health outcomes, including nutrition outcomes.

Audience and Intended Use

The primary audience of the evaluation report will be USAID (in particular, USAID/Bangladesh and GHI/Washington), the awardee (FHI 360, in partnership with CARE and Winrock International), and their sub-recipients (WAB and other local NGOs). The Government of Bangladesh (GOB) is also a secondary user of the findings of the evaluation.

Findings from the performance evaluation will be used to draw lessons learned for the design and implementation of future WASH programs in Bangladesh. USAID will also make extensive use of findings from the evaluation to make tailored presentations and bulletins for a wide dissemination of best practices and lessons learned. The evaluation recommendations may be used by the Mission to provide input for the upcoming Country Development Cooperate Strategy (CDCS).

Evaluation Questions

The evaluation is expected to provide answers to the following questions in aggregating total project area:

1. To what extent was the WASHplus Activity successful in achieving its objective, intermediate results, and sub intermediate results?
2. Which institutional capacities, systems and linkages and which household practices and behaviors, are likely to be sustainable? Are the sustainability plans for maintenance, repair, and security of current infrastructure improvements (both water points and latrines) adequate to ensure activity success? To what extent have behavior change approaches been integrated into NGO and government practice?
3. How successfully were the strategies to integrate WASH and nutrition programing executed? What barriers and what enablers were found related to the integration of WASH and nutrition programming?
4. Are design and implementation of the gender strategies considered adequate and appropriate? How did (and which) activity interventions facilitate and/or inhibit equitable participation of men, women, boys and girls?
5. What are the best practices and lessons learned from WASHplus that could inform the design of similar activities in Bangladesh?

3. EVALUATION DESIGN AND SUGGESTED METHODOLOGIES

A mixed method evaluation design and methodology is required to fulfill the requirements of the SOW and collect valid and reliable data. The proposed performance evaluation will implement a population based quantitative survey and various qualitative methodologies to evaluate the activity performance. The population based quantitative survey will randomly select communities and households from the activity area. The sample must be designed to 1) generalize the results to the target population and 2) allow comparisons to the baseline or previous outcome results measures. This will require disaggregating the population results as mentioned in the Performance Indicator Reference Sheet (PIRS). For the qualitative data collection, the contractor should consider employing a variety of primary data collection methods, including FGDs, KIIs, other participatory methods and direct observation.

A desktop review of relevant documents is also suggested to conduct for preparation of the evaluation design. The desktop review should include activity proposal, monitoring and evaluation plan, baseline studies, activity performance reports, evaluations, studies, etc.

Quantitative Design: The Contractor shall propose a quantitative survey methodology as a part of mixed method design. The quantitative design should include all households in the target villages of all 22 unions (A list will be provided during Team planning meeting along with all other

documents to be provided noted) of Char Fasson, Daulatkhan, and Galachipa and Kalapara upazila as study population. The following is a list of indicative methods for quantitative survey design:

1. Indicator definitions: Definitions of indicators, means of verification and means of measurement should follow WASHplus Performance Indicator Reference Sheets (PIRS) annexed to the WASHplus Monitoring and Evaluation Plan. In reviewing and redesigning the survey instrument after the award, the contractor must consider including all disaggregation levels as promised in the PIRS.

The indicators to be tracked as part of the household survey are listed below. The contractor is not required to include an anthropometric measurement for data collection for this evaluation:

- % of children under age five who had diarrhea in the prior two weeks
- % of households using improved drinking water source
- % of households using improved sanitation facilities
- % of households practicing safe disposal of child feces
- % of households with a functional handwashing device/station with water and soap

The following indicators are output in nature but related to operations which were tracked through service data and other project documents. The followings are included for secondary review and triangulation:

- # of people gaining access to an improved drinking water source
- # of people gaining access to an improved sanitation facility
- # of Wards that have self-generated WASH funds
- % of UPs that developed an integrated WASH plan with the necessary budget allocation
- % of allocation for WASH in UP annual budgets.

2. Survey Plan: A survey plan must be prepared by the contractor together with the work plan, which then need to be submitted to USAID for approval before the survey implementation. The document should include sampling strategy and sample size, sampling frame and household listing, data treatment and analysis plan, training plan for enumerators a supervisors, field testing of the instruments, and oversight and quality control mechanisms. This plan must reflect the methodology used in the baseline. The contractor must ensure that the survey plan reflects the following:
    - A sample size that is sufficient to estimate all key indicators using a 95% level of significance and 80% power.
    - The equation and the parameters used to estimate the sufficient sample size
    - The number of households sampled will be higher than is needed to account for household non-response/non-participation.
    - In addition to the geographic stratification noted above, all other criteria for stratification must be clearly presented and justified.
    - A clear description of how sampling will be conducted (e.g. stages of sampling, definitions of clusters, methodology for identifying households and household members). How the numbers of stages of sampling are to be used, explanation of how the number of clusters and households per cluster in the sample will be

determined? USAID recommends using probability proportionate to size (PPS) or other appropriate first-stage sampling mechanisms. The contractor should indicate how it will use probability-based sampling technique to select dwellings within clusters.

- Explanation of reliable source information for the sampling frame, e.g. census lists or other national or internationally-sponsored surveys, such as the Demographic Health Surveys (DHS).

3. Data Treatment and Analysis Plan: The contractor must prepare a data treatment and analysis plan to address the following elements:
    - Data entry software: Software to be used for data entry, along with timeline for data entry/validation to ensure no delays occurs in analysis; the contractor is encouraged to use smartphone or other personal device to collect data.
    - Data quality checks and edits (data cleaning): Has to be planned to ensure logical consistency and coherence, as well as a description of the software to be used.
    - Weighting of data: Data need to be weighted to take into account the differences in probability. Without weighting the data, the estimates could be less precise.
4. Indicator tabulation plan: Estimates should be produced for each stratum and for the overall level to facilitate comparison across districts/upazilas. When preparing the plan, please make sure to:
    - Indicate the confidence intervals associated with the indicators that will be produced alongside the indicator estimates that will take into account the design effect associated with the complex sampling design. Additional statistical outputs required for multivariate analysis should be provided in an appendix.
    - The baseline and end line samples are comparable. If not, suggest procedures that will be adopted for baseline-end line comparability purposes.
5. Survey Question Review: The survey instrument used in the baseline survey should be replicated to the extent possible and is attached as Annex A. If there is a need for rephrasing questions, the contractor must add a question with a revised statement instead of changing an existing one. Some of the baseline questions might be redundant due to current scope of the evaluation and contractor should delete those questions.
6. Additional Information: In consultation with USAID staff, and/or where baseline data was not collected for comparison purposes, the contractor may add questions to improve the specificity of impact and outcome information presented in the quantitative performance evaluation report.
7. Pretesting: The instruments should be tested in a community similar to those that are part of the target population, but will not be part of the target group. The Bangla version of the questionnaire should be used during training and field testing. The questionnaire will then need to be modified based on the feedback from the field test and used in the actual survey.
8. Field Procedure Manual: It is expected that the contractor will develop a field manual in Bangla to be used as part of the training materials for survey enumerators and supervisors. The manual will serve as reference material for staff in the field conducting the survey. The field manual should include instructions on how to sample dwellings within clusters, households within dwellings, and select individuals within households. The manual should also give recommended best practices for conducting interviews and dealing with specific

challenging situations, e.g. households that refuse to participate, and provide a household and individual respondent nonresponse follow-up strategy. Finally, the manual should describe the roles and responsibilities of the enumerators, supervisors, and other field staff and contain a detailed explanation of how to properly administer each question in the questionnaire.

9. Open Data Policy Compliance: To comply with USAID's Open Data Policy, USAID will post the data to USAID's Open Data portal. The contractor will be expected to submit the following:
    - Raw data and the cleaned data files with all of the computed variables in Statistical Package for Social Science (SPSS) software and Comma Separated File (CSV) file formats.
    - SPSS or Stata Syntax files and weighting files in Microsoft Excel and in CSV format
    - A data dictionary - essentially a definition and description of any of the fields provided in the dataset.
    - Confirmation that the contractor asked respondents of the survey for their consent to release their birth dates and any other identifying information.

Qualitative Design: The evaluation team shall do the following for qualitative design. The qualitative tools and key questions should be designed to interpret quantitative data or vice versa.

- Field visits to meet with beneficiaries and local government bodies (as applicable), use interview and interactive methods and tools for data collection, and observation. The team may consider selecting interview sites to understand the differences between major hydro-geological condition, climate variability and communities' access to resources, and services and remoteness.
- KIIs with beneficiaries, non-beneficiaries, staff from USAID, awardees, and partner NGOs, host Government officials, and other agencies as appropriate.

KIIs: The evaluation team will conduct qualitative, in-depth interviews with key stakeholders and partners to add values and/or to help explore, in more depth, information obtained in FGDs. Whenever possible, the evaluation team should conduct in person interviews with informants. When it is not possible to meet with stakeholders in person, telephone interviews can be conducted. The evaluation team will have interviews with the following stakeholders (note that this list is not exhaustive):

- Relevant USAID offices and other USG offices in Bangladesh and USAID/Washington;
- WASHplus staff at both at Washington and Bangladesh;
- Other donors who provide funds to similar programs; e.g. Water and Sanitation Program of World Bank.
- USAID partners who have collaboration with the programs, e.g. SPRING & SHIKHA;
- Beneficiaries, community members, etc.;
- Key Government of Bangladesh representatives at both national and local levels;
- Donors and staff from relevant implementing organizations; and
- Other key stakeholders, e.g. professional associations and universities.

FGD: The evaluation team shall conduct FGD as appropriate for this qualitative data collection effort. The FGD could be organized with mixed or homogeneous groups of participants representing water, sanitation, BCC and non-beneficiaries.

Site visits: Evaluation team members, as appropriate, will visit selected activity sites for direct observation, spot check etc. The evaluation team in collaboration with USAID will choose a strategy to select sites.

The evaluation team will use a variety of methods for collecting qualitative information. These methods, to the maximum extent possible, will ensure that if a different, well-qualified evaluator were to undertake the same evaluation, he or she would arrive at the same or similar findings and conclusions.

ANNEX B: DOCUMENTS REVIEWED

Callier, Sandra. "Re: Request for No Cost Extension of WASHplus Activities in Bangladesh." Message to Tofayel Alam and Merri Weinger. 23 Apr. 2015. Email.

Claire, Chase. Et al. Multisectoral Approaches to Improving Nutrition; Water, Sanitation And Hygiene Feb 2016

Chianza, Thomas. The OECD/DAC Criteria for International Development Evaluations: An assessment and Ideas for Improvement. *Journal of MultiDisciplinary Evaluation, Volume 5, Number 9*. March 2008

USAID. Annex J.2: Branding Implementation and Marketing Plan. N.d.

USAID. Cooperative Agreement No. AID-OAA-A-10-00040. 30 Sept. 2010.

USAID. Initial Environmental Examination, Democracy and Governance. N.d.

USAID. RFTOP No. SOL-388-15-000006, WASHplus Evaluation Programme Section C-Description/Specifications/Statement of Work (SOW). N.d.

USAID. WASHplus. Addressing Water, Sanitation and Hygiene (WASH) in Southwestern Bangladesh. 7 Dec. 2012.

USAID. WASHplus. Addressing Water, Sanitation and Hygiene (WASH) in Southwestern Bangladesh, Quarterly Report (April-June 2013). 22 Aug. 2013.

USAID. WASHplus. Addressing Water, Sanitation and Hygiene (WASH) in Southwestern Bangladesh, Narrative Report (July-September 2013). 31 Oct. 2013.

USAID. WASHplus. Addressing Water, Sanitation and Hygiene (WASH) in Southwestern Bangladesh, Narrative Report (January-March 2014). 6 May 2014.

USAID. WASHplus. Addressing Water, Sanitation and Hygiene (WASH) in Southwestern Bangladesh, Quarterly Narrative Report (April-June 2014). N.d.

USAID. WASHplus. Addressing Water, Sanitation and Hygiene (WASH) in Southwestern Bangladesh, Quarterly Updates (July-September 2014) and Year 2 Highlights. N.d.

USAID. WASHplus. Addressing Water, Sanitation and Hygiene (WASH) in Southwestern Bangladesh, Year 3 Quarter 1 Report (October-December 2014). N.d.

USAID. WASHplus. Addressing Water, Sanitation and Hygiene (WASH) in Southwestern Bangladesh, Year 3 Quarter 3, Quarterly Report (April-June 2015). N.d.

USAID. WASHplus. Bangladesh WASHplus, Monitoring & Evaluation Plan. 28 Feb. 2014. Updated 9 Dec. 2014.

USAID. WASHplus. Codelist_English: Variable Information of Main File. N.d.

USAID. WASHplus. Project Activity Timeline/Implementation Plan: Project: Addressing Water, Sanitation and Hygiene (WASH) Deprivation in Southwestern Bangladesh. 7 Dec. 2012.

USAID. WASHplus. Qualitative Guidelines, English Version. N.d.

USAID. WASHplus. Sanitation Secretariat of Bangladesh, Upcoming Event: Journey to ZERO: Sanitation Conference Bangladesh, Oct 3-4, 2015, Dhaka. 3 Oct. 2015.

USAID. WASHplus. WASHplus Baseline Assessment of WASH Situation in Southwestern Bangladesh. 2013. http://www.washplus.org/sites/default/files/bangladesh-baseline_final.pdf

USAID. WASHplus. WASHplus Behavior Change Strategy. 12 Dec. 2013.

USAID. WASHplus. WASHplus Performance Data Table 2.1: Revised Version. 10 Dec. 2014.

USAID. WASHplus. WASHplus Performance Data Table 2.2: Targets for WASHplus Activity in Bangladesh Project Objectives, IR 1, IR 2 and Crosscutting Issues. 10 Dec. 2014.
USAID. WASHplus. Baseline Study of WASHplus Activity to Understand the Existing WASH Situation in Southwestern Bangladesh—2013: Executed by WAB Bangladesh: Household Questionnaire [English]. 12 Aug. 2013.
USAID. WASHplus. Baseline Study of WASHplus Activity to Understand the Existing WASH Situation in Southwestern Bangladesh—2013: Executed by WAB Bangladesh: Household Questionnaire [Bangla]. 12 Aug. 2013.
USAID/Bangladesh. Country Development Cooperation Strategy. N.d.
UNICEF. Field notes: UNICEF policy and programming in practice community approaches to total sanitation based on case studies from India, Nepal, Sierra leone, Zambia. N.d.
UNICEF. Levels and trends in child malnutrition. UNICEF – WHO – World Bank Group joint child malnutrition estimates, Key findings of the 2015 edition, 2015.
UNICEF. Management of severe acute malnutrition in children: working towards results at scale-UNICEF programme guidance document 2015.
UNICEF. Report of household income and expenditure survey; Bangladesh Bureau of statistics, ministry of planning 2010
UNICEF. Programmatic Responses to Wash & Nutrition. Dec 2015.
UNICEF. Bangladesh Country Office. WES. Factsheet September. September 2014.
WAB. Community-Led Total Sanitation (CLTS) for people in vulnerable situations. Identifying and supporting the most disadvantaged people in CLTS A case study of Bangladesh. N.d
WHO. Minimum water quantity needed for domestic uses WHO Regional Office for South-East Asia. N.d

ANNEX C: DATA COLLECTION TOOLS

HOUSEHOLD SURVEY

- **Paper Version (English) <Attached separately>**
- **Paper Version (Bangla) <Attached separately>**
- **Electronic Version (English & Bangla) <Attached separately>**

QUALITATIVE TOOLS

Tool 1: KII USAID

Note: This is a guide. The interviewer is free to add additional questions or not ask those she/he already has the answers for.
Record: Date, Time, Location:
Name of Respondent(s)
(By the end of the interview) Titles, Affiliation, phone, emails of those interviewed in interviews, then enter findings in Team Form 1 and persons met in Team Form 3.

1. What are the expectations of USAID with regards to the evaluation exercise? (USAID/ Washington and USAID/Bangladesh)
2. Can you elaborate on past WASH programs or on WASHplus programs implemented in other countries?
3. Can you elaborate on the SPRING and SHIKA nutrition programming and its link to WASH?
4. Are you thinking of a second phase of WASHplus? If so, what will it incorporate?
5. Please share any challenges, lessons learned, and recommendations on the implementation of WASHplus in the four Upazilas.

Tool 2: KII FHI 360

Note: This is a guide. The interviewer is free to add additional questions or not ask those she/he already has the answers for.
Record: Date, Time, Location:
Name of Respondent(s)
(By the end of the interview) Titles, Affiliation, phone, emails of those interviewed in interviews, then enter findings in Team Form 1 and persons met in Team Form 3.

1. Please explain the role of……in WASHplus as per the MOU with USAID. (Ask for MOU)
2. What is the work experience of ……..with respect to WASH? How has ……..integrated WASH with nutrition, or is this a new approach?
3. Has the collaboration with awardees, sub-recipients and PNGOs for WASHplus increased your institutional capacities? Any changes to your system or theirs? How strong was the linkage? What went wrong and what went well?
4. How is gender mainstreamed in WASHplus (explain how gender is integrated in the project design and implementation, particularly related to having female stakeholders involved in the delivery of messages, female volunteers conduct household visits, anything related to activities on menstruation hygiene, targeting men through tea stalls).
5. How were women and men beneficiaries part of the design, implementation and monitoring of the project? How well and equally did they participate? Did they access to the benefit equally? And how did they give you feedback?
6. What were the management challenges in making the project work? 2013? 2014? 2015?
7. In terms of the objectives, in your view, how successful was the project?
    a. **Objective 1**: To reach poor and marginalized communities with sustainable safe water, sanitation, and with the promotion of hygiene by using locally appropriate technologies and approaches.

b. **Objective 2**: To build community and local government capacity in operating and maintaining water and sanitation facilities, demand increased allocation and pro-poor targeting of national and local government funds, and community contributions to ensure sustainability of activity interventions and impact.
c. **Cross-Cutting Issue**: Strengthen programming guidance for coordinated WASHplus-nutrition programming in Bangladesh?

8. How successful was WASHplus in meeting
    a. IR 1: Increased use of WASH services? (Improved access to WASH services & Enhanced applied knowledge of WAS practices) and
    b. IR2: sustainability of WASH facilities improved (Enhanced capacity of communities to manage WASH & Increased UP allocation of resources for WASH)?
9. Which of the project outcomes from the objectives can be sustained? Replicated?
10. How successful were the seven strategies in carrying out WASH activities?
    a. 1. Multi-Level Advocacy?
    b. 2. Igniting community based approaches to change?
    c. 3. Strengthening household support, outreach and promotion
    d. 4. Multiplying message through folk or traditional media?
    e. 5. Increasing availability and affordability of hygiene and sanitation products
    f. 6. School hygiene and sanitation? Demonstration latrines and handwashing stations?
11. How did the project identify the beneficiaries? Which vulnerable groups got special attention? Was it enough? (e.g. Female headed households, young mothers, people with disability, elderly)
12. Can you identify some lessons learned by your organization from this experience? What are some best practices?
13. Any other points you want to mention today?

Tool 3: KII WAB, PNGOs (PNGOs-Development Organization of the Rural Poor (DORP), South Asia Partnership (SAP), Dhaka Ahsania Mission (DAM) and Association of Voluntary Actions for Society (AVAS)
Note: This is a guide. The interviewer is free to add additional questions or not ask those she/he already has the answers for.
Record: Date, Time, Location:
Name of Respondent(s)
(By the end of the interview) Titles, Affiliation, phone, emails of those interviewed in interviews, then enter findings in Team Form 1 and persons met in Team Form 3.

1. Please explain the role of your organization in WASHplus and in which areas of Bangladesh did you work? How were you chosen?
2. Which government partners do your organization traditionally work with has worked with for WASHplus? How was the collaboration in other GOB partners?
3. Which types of community organization did you work with for WASHplus? How was the collaboration?
4. Has the collaboration with awardees, sub-recipients and other PNGOs increased your institutional capacity? Any changes to your system or your partners? How strong was the linkage? What went wrong and what went well?
5. How is gender mainstreamed in your organization's commitment, policy and strategy to achieve the equal opportunities and benefit of women and men? How did you apply this to WASHplus?
6. Do you think, your organization implemented WASHplus as mandated? Did all HH gets clean water at ease and have sanitary latrines?
7. Has WASHplus successfully provided poor and marginalized communities with safe drinking water, improved sanitation and hygiene awareness? Give reasons for your answers. Is there a difference in success in the Upazilas? Why?
8. What was your observation on Care Taker family? Do you think they can take over O&M of the WASH infrastructure? Please explain
9. At your organization's workshop, who were key attendees? What were your observations on such workshops?
10. Which activities were your organization involved in? (Construction, rehabilitation, community led total sanitation, training, BCC, exploring a prototype handwashing device? What were the successes and challenges faced? What remains to be done?

11. Which of these activities are supported by the communities (funding, labor)? Can they be sustained? Replicated? Please justify.
12. What were specific strategies to take over maintenance of the infrastructure by the user's once the project is terminated?
13. Has the government, community organizations taken over the maintenance, repair and security of the current infrastructure improvements?
14. As you have arranged World Water Day 2014, what did you achieved through this Day?
15. Were the beneficiaries fairly selected? Explain how gender analysis is recognized/conducted, how men, women, boys girls took part in the design, implementation and monitoring of the project. Did they participate equally? How equally did the benefit? How did they give you feedback on challenges?
16. Can you identify some lessons learned by your organization from this experience? What are some best practices? (Are they significant? Applicable in different contexts?
17. For a similar future projects, what should be your recommendations to the donor/awardees?

Tool 4: KII or FGD School Management Committees (SMC), trained teachers and administrators
Administer Tool 10 to this group as they can point out community infrastructures
Note: This is a guide. The interviewer is free to add additional questions or not ask those she/he already has the answers for.
Record: Date, Time, Location:
Name of Respondent(s)
(By the end of the interview) Titles, Affiliation, phone, emails of those interviewed in interviews, then enter findings in Team Form 1 and persons met in Team Form 3.

1. How you are involved in WWC/WASHplus activities in this area?
2. Please explain your roles & activities (planning, construction and rehabilitation of community led total sanitation, training-CLTS, and exploring a prototype handwashing device) of the schools in WASHplus and how were you chosen?
3. How was the collaboration with communities and school children? What were the successes and challenges?
4. Have you previously collaborated with NGOs, government in WWC related activities?
5. Was your work voluntary or paid?
6. What key school staff were assigned to work on WASHplus? Were they willing and ready to help? Please tell us more.
7. What observations/feedback do you get from students, households and the community people? Do they support the project and are they ready to take over especially on O&M?
8. Has WASHplus successfully provided poor and marginalized communities with safe drinking water, improved sanitation and hygiene awareness? Give reasons for your answers. Is there a difference in success in the different schools and Upazilas? Why?
9. Do you think anything remains to be done through WASHplus?
10. Were the beneficiaries fairly selected? Explain how men, women, boys and girls took part in the design, implementation and monitoring of the project? How well did this work with you? Did they participate equally? Did women and men benefit equally? How did they give you feedback on challenges?
11. Can you identify some lessons learned by your school from this experience? What are some best practices? Are they significant? Applicable in different contexts?
12. In the future, what has to be done? Any other points you want to mention today?
13. Do you think WASHplus is a successful or a sustainable project? Can it be replicated in other areas? Give your comments.

Tool 5. KII Chairman/Members Bazar Committee
Note: This is a guide. The interviewer is free to add additional questions or not ask those she/he already has the answers for.
Record: Date, Time, Location:
Name of Respondent(s)
(By the end of the interview) Titles, Affiliation, phone, emails of those interviewed in interviews, then enter findings in Team Form 1 and persons met in Team Form 3.

1. How old is this committee? How old is this Bazar? Is this a daily, bi-weekly or weekly Bazar? What commodities are transact/exchange here?
2. Please explain how is the committee formed (selected/elected/by whom?)
3. How many institutional linkages exist through this Bazar (schools, banks, NGO/Cooperative offices), Post Office, Call centres, pharmacies/govt dispensary)?
4. What types of public facilities are provided/available here (well functional Deep tube well (#)/hand tube well (#), public toilets (#) etc)?
5. How do they being constructed (funding, who give the need, who decides for install)?
6. Are they well maintained? How? What is the source of fund? Is there any maintenance staff?
7. Do you heard about WASHplus? What they do? Where? Do you involve with it in any way?
8. Do you have any influence of WASHplus in achieving WWC activities in this Bazar? How?
9. How do you manage the O&M of the WWC/WASH infrastructure in your Bazar? Who does regular cleanings? Are they paid by the committee? Do the cleaner charge from the users?
10. Does your Wash room basin equipped with handwashing products?
11. Did you test water quality of your DTW? What is the test/results?
12. How do you clean your septic tank? Please detail.
13. Is WASHplus a successful project in terms of its design, implementation and maintenance practice? How? Will it sustain?
14. Can this be replicated?

Tool 6. KII or FGD union WWC Committee Members

Note: This is a guide. The interviewer is free to add additional questions or not ask those she/he already has the answers for.

Record: Date, Time, Location:

Name of Respondent(s)

(By the end of the interview) Titles, Affiliation, phone, emails of those interviewed in interviews, then enter findings in Team Form 1 and persons met in Team Form 3.

1. How many members do this committee formed? What is your role in the union/Word to ensuing clean water and safe sanitation?
2. How do you prepare WWC Action Plan for the UP/Word, please explain. Do you involve women in preparing Action Plan?
3. How often do you sit/meet and what do you discuss? Can you freely give your opinion in the meeting?
4. Do you think clean water supply and safe sanitation for the poor and marginalized people have achieved through WASHplus?
5. Do you think that your union/Word has achieved 100% ODF?
6. Do you think the WASHplus is sustainable project?
7. What types of recommendation you provide in workshop/meeting of WASHplus? Does the project accept those? Please cite few examples.
8. Do you think the WASHplus is successful project in this UP in terms of design, implementation practice? How?
9. What are the best practice you think in WASHplus? Do you think it can be replicated in other project?
10. What is your advice to us related to WASHplus?

Tool 7. KII or FGD union Facilitator, Facility Care Taker, Local Sanitation Entrepreneurs, Volunteers

Note: This is a guide. The interviewer is free to add additional questions or not ask those she/he already has the answers for.

Record: Date, Time, Location:

Name of Respondent(s)

(By the end of the interview) Titles, Affiliation, phone, emails of those interviewed in interviews, then enter findings in Team Form 1 and persons met in Team Form 3.

1. How long you are working with this project (WASHplus)? Please tell us your involvement and activities you are entrusted with?

2. How many staff do you work in your area (UP), how do you coordinate among? How do you coordinate with your PNGO counterparts?
3. How do you coordinate with UP, DPHE, UP/Word WWC Committee, School Management Committee and union Disaster Management Committee?
4. Please discuss process of selection of potential beneficiaries; how the PNGO help you select the beneficiaries?
5. Do you have link with UP/Upazila Coordination Committee?
6. How do you monitor the works of the PNGO at the field level?
7. How the O&M of the WWC/WASH infrastructure is managed? How many CareTaker Groups formed in your working areas and what were their roles? Are they equipped with anything?
8. Do you think clean water supply and safe sanitation for the poor and marginalized people have achieved through WASHplus? Do you think that every HH has ensured clean water supply and achieved 100% ODF and as result every HH has sanitary latrine?
9. Who decides about the need of water points/HH latrine? Does it ever conflict with your budget constraints? How do you overcome?
10. What is the role of local sanitation entrepreneurs with the people/community? How do they link each other? What types of supports they provide (availability of spares, materials etc)
11. What is your monitoring system related to OD, use of latrines, WSP?
12. Do you think the WASHplus is a successful project as whole in terms of its design, implementation and maintenance practice? How?
13. Do you think WASHplus concept can be replicated in other project/areas?
14. It would have been better if (what)?

Tool 8: FGD Community beneficiaries (Male Group)

Note: This is a guide. The interviewer is free to add additional questions or not ask those she/he already has the answers for.

Record: Date, Time, Location:

Name of Respondent(s)

(By the end of the interview) Titles, Affiliation, phone, emails of those interviewed in interviews, then enter findings in Team Form 1 and persons met in Team Form 3.

1. How do you involve in WASHplus activities? How/what?
2. What are your roles there? Did you heard about Community Action Plan? What is this about?
3. Do all of you now have access to clean water near to your home and have HH sanitary latrine/shared latrine?
4. What was the pre-WASHplus situation on WASH activities? Did people practice OD? Why you shifted from OD to HH latrine?
5. How you are selected to get HH latrine from WASHplus? Does it cost anything from you? (money/labor): please discuss.
6. Do you think UP/Word Members/NGO helped you to be selected as a beneficiary? Was it possible without their help?
7. Do all members of your family use the latrine? Do you feel comfort now?
8. How do you manage children's feces?
9. Did you participated any training program from the project (WASHplus)? What were those about?
10. Do you hear about CLTS? What is this? Did you participated for any CLTS demonstration?
11. Do you hear about WSP? Do you and your members of the family practice it? Did you take any training on this?
12. Do you have handwashing arrangement at your homes? How many do you have? What do you used for handwashing?
13. How do you fix up your TW if it is disordered? Who help? Do you pay money for it?
14. How do you keep clean of your latrine?
15. How do/will you clean your latrine when gets filled in?
16. Do any of you is from the Care Taker Group? What is your role there? How frequently you work for the group?
17. As a man what specific role did you take in building your infrastructure (TW latrine)?

18. What are the specific benefits of men from WASHplus? Is there any constraints or challenges remains for reaching to your needs?
19. Is WASHplus is a sustainable project, please explain.
20. Can this project be replicated to other areas?

Tool 9. KIIs SPRING, SHIKHA, World Bank

Note: This is a guide. The interviewer is free to add additional questions or not ask those she/he already has the answers for.

Record: Date, Time, Location:

Name of Respondent(s)

(By the end of the interview) Titles, Affiliation, phone, emails of those interviewed in interviews, then enter findings in Team Form 1 and persons met in Team Form 3.

1. Please give a background on your project (start date, objectives, years of operation, locations)
2. How is your project linked to WASHplus?
3. How did WASHplus benefit from your project?
4. Now that WASHplus is completed, what is your recommendation for WASH activities?
5. Can you build on WASHplus outcomes?

Tool 10. KII Union Parishad Chairman

Note: This is a guide. The interviewer is free to add additional questions or not ask those she/he already has the answers for.

Record: Date, Time, Location:

Name of Respondent(s)

(By the end of the interview) Titles, Affiliation, phone, emails of those interviewed in interviews, then enter findings in Team Form 1 and persons met in Team Form 3.

1. How do you conduct the yearly development planning meeting in the Union Parishad? Did any problems arise from ward level meetings? How do the following members participate in this process: Union Parishad member, Permanent committee member, Public? How would you do LGSP-2 or other planning? (Provide brief summary of planning activities).
2. How do you identify issues in every area of the Union Parishad? How do you prioritize the problems you have identified? In order to identify and prioritize these problems, did you circulate anything within the government or communicate with other government members?
3. Budget information:
    a. How do you develop your budget? How do you involve Union Parishad members to develop the budget?
    b. Are women able to participate in the budget development process? Are their opinions and statements taken into consideration and incorporated into the budget?
    c. Is the public able to participate in the budget development process? How are they able to participate?
4. In the last budget, was any money allocated to WASH activities? If so, how much money was allocated? Which specific programs received money from the budget that was allocated to WASH?
5. What kind of work does the UP do in terms of supplying clean water, sewage, and hygiene to the area? How do they maintain these systems? In public places such as bazaars, what kind of activities do they do?
6. Who receives government benefits? How do you identify and prioritize those who will receive government benefits? Does the UP provide any government benefits to the poor and ultra-poor related to WASH? If yes, last year how many people received government benefits and how much did it cost the government?
7. Currently, what sources of safe/clean water exist in your area and in the Union Parishad? What systems are in place to solve problems with the safe water systems and who is involved? (area residents, Union Parishad, NGO, etc).
8. In the area, what type of latrines exist? What do people mainly use and why? What types of problems arise from using these systems? How can each of the following be involved in eliminating these problems? (area residents, Union Parishad, NGO, etc).

Type	Number	Comment
Shallow tube well		
Deep tube well		
Health beneficial latrine system		
Health beneficial latrine distributed to poor people		
Arsenic tests conducted in well		
Events on public awareness or education on handwashing, health beneficial latrine use		

9. In your area, did you inform the thana/Upazila (subdistrict) on safe water, hand hygiene, sewage problems? If so, did they resolve the issue? If you did not report these problems to the thana/Upazila, why did you not report to them?
10. Do you have workshop committees at the Union Parishad? If so, what kinds of activities do they involve?
11. What kinds of problems do you face when conducting workshops on WASH activities? How do you deal with these problems during the workshops? (hints: political pressure, government order, bureaucratic problems, lack of time, lack of budget)
12. In your area, are there any departments/committees/parties working on providing safe water, hygiene, and sewage? If yes, list the activities of each one. How is their relationship with the UP?
13. Were you involved with any WASHplus activities? If yes, how?

Tool 11. Information on Budget of Union Parishad
[Note this tool is distinct from the UP phone survey for which data is presented in the report]

Union Parishad Name:
Upazila/Thana:
Zila:
Financial Year:
Fill out Form 1 and 3

Provide the following information from the last 2 years (2014-2016) of the UP budget.

Subject	Name of the plan	Money allocated	Money spent	Source of money	Comments/ Notes
Clean/safe water					
Sewage					
Hygiene					

Tool 12a. KII mechanic of DPHE
Note: This is a guide. The interviewer is free to add additional questions or not ask those she/he already has the answers for.
Record: Date, Time, Location:
Name of Respondent(s)
(By the end of the interview) Titles, Affiliation, phone, emails of those interviewed in interviews, then enter findings in Team Form 1 and persons met in Team Form 3.

1. Identifying information (name, address, age, education, profession, and position).
2. In our area, what kind of work do you do? What kind of problems do you face in your work?
3. What kind of safe/clean water systems are in your area? What kind of activities are you involved with regarding safe/clean water systems.

4. What kind of sewage system are in your area? What kind of activities are you involved with regarding sewage systems?
5. What are the ways to solve problems related to supplying safe water and sewage to the public? What are the problems and how do the following address them? (Public, UP government, NGO). In this matter, what is your suggestion/opinion?
6. How are you involved with WASHplus?

Tool 12b. KII official of DPHE

Note: This is a guide. The interviewer is free to add additional questions or not ask those she/he already has the answers for.

Record: Date, Time, Location:

Name of Respondent(s)

(By the end of the interview) Titles, Affiliation, phone, emails of those interviewed in interviews, then enter findings in Team Form 1 and persons met in Team Form 3.

1. Identifying information (name, age, education, profession, and position).
2. What kinds of activities does the DPHE do?
3. What are the activities that the UP does in regards to workshops?
4. What are the activities of the UP on workshops?
5. What kind of safe or clean water supply is available in your area currently?
6. What kind of sewage system is available in your area currently?
7. What are the ways to solve problems for supplying safe water and sewage to the public? What are the problems and how do the following address them? (Public, UP government, NGO). In this matter, what is your suggestion/opinion?
8. How are you involved with WASHplus?

ANNEX D: COMMUNITIES VISITED & INDIVIDUALS INTERVIEWED

QUALITATIVE INTERVIEWS (excludes FGDs)

Date	Job title	Type
Jan 13	SHIKHA, Program Manager	KII
Jan 13	Project Coordinator, WASHplus	KII
Jan13	Manager Monitoring and Evaluation	KII/GI
Jan 14	Behavior Change and Wash Nutrition Integration Coordinator	KII
Jan 14	WASHplus Deputy Director, Behavior Change Specialist	KII
Jan 14	DORP Follow-up Coordinator	KII
Jan 14	Follow-up union Supervisor DAM	KII
Jan 15	Teacher, Lalmohan College, Ewazpur union, Char Fasson	KII
Jan 16	DPHE, Char Fasson	KII
Jan 16	Chairperson, CDF, Char Fasson	
Jan 16	Union Facilitator Aespur union, Char Fasson, Bhola	GI
Jan 16	Union Facilitator Aespur union, Char Fasson, Bhola	GI
Jan 16	Head teacher, Awazpur High School, Char Fasson, Bhola	GI
Jan 16	Assistant teacher, Awazpur High School	GI
Jan 16	Assistant teacher, Awazpur High School	GI
Jan 16	Entrepreneur	GI
Jan 16	Entrepreneur	GI
Jan 17	Mechanic, DPHE	KII
Jan 17	SAE, DPHE	KII
Jan 17	Chairman, UP	KII
Jan 17	President, UP WWC	KII
Jan 17	Union Chairman, Char Fasson	KII
Jan 18	Member CareTaker Goup.	GI
Jan 18	Member CareTaker Goup.	GI
Jan 18	CDF Vice Chairman	KII
Jan 18	Union Chairman, Charpata	GI
Jan 18	Union Parishad Member	GI
Jan 18	Union Parishad Member	GI
Jan 18	Hasina Nijam High School Head Master	GI
Jan 18	Hasina Nijam High School, Assistant Teacher	GI
Jan 18	Hasina Nijam High School Teacher	GI
Jan 18	Local Entrepreneur, Char Fasson	KII
Jan 18	Female Entrepreneur	KII
Jan 19	Union Facilitator	KII
Jan 19	Community Volunteer, CDF Member	KII
Jan 19	Chairman/President of the CDF Group	GI
Jan 19	Community Volunteer CDF Group	GI
Jan 21	Chairperson	KII
Jan 21	Local Entrepreneur	KII
Jan 21	President UP WWC Committee	GI
Jan 21	Member WWC Committee	GI
Jan 21	Member WWC Committee	GI
Jan 21	Member WWC Committee	GI
Jan 21	Member WWC Committee	GI
Jan 21	Member WWC Committee	GI
Jan 21	Member WWC Committee	GI
Jan 21	Head Teacher	GI
Jan 21	Teacher	GI
Jan 21	Teacher	GI
Jan 21	Teacher	GI

Jan 21	Teacher	GI
Jan 21	Teacher	GI
Jan 21	Teacher	GI
Jan 21	Teacher	GI
Jan 21	Community Volunteer, Chaka Muya union	KII
Jan 21	School Committee Member, Chaka Maya School	GI
Jan 21	School Committee Member, Chaka Maya School	GI
Jan 21	School Committee Member, Chaka Maya School	GI
Jan 22	CDF President, Ratandi, Patuakhali	GI
Jan 22	Union Facilitator, Kologasia, Galachipa	KII
Jan 22	Union Facilitator	KII
Jan 22	Community Volunteer, Lalaua union Galachipa, Patuakhali	KII
Jan 22	Community Volunteer, Lalaua union Galachipa, Patuakhali	KII
Jan 23	Local Entrepreneur	GI
Jan 23	Local Entrepreneur	GI
Jan 23	CDF Secretary	GI
	CDF President	GI
	CDF Cashier	GI
	CDF Member	GI
	CDF Member	GI
Jan 24	DPHE Galachipa	KI
Jan 24	COAST Project Coordinator	KII
Jan 25	Bazar Committee Member	GI
Jan 25	Bazar Committee Member	GI
Jan 25	UP WWC Committee Members, Lalua UP	GI
Jan 25	UP WWC Committee Members, Lalua UP	GI
Jan 25	UP WWC Committee Members, Lalua UP	GI
Jan 25	UP WWC Committee Members, Lalua UP	GI
Jan 26	Union Facilitator	KII
Jan 28	Chief of Party SPRING	KII
Jan 31	Project Director, Department of Public Health Engineering, Dhaka, Water Supply and Sanitation in Cyclone Prone Areas of Bangladesh	KII

ANNEX E: ADDITIONAL DATA TABLES

Table 9. Household survey sample sizes by upazila and union

Char Fasson	**565**
Aminabad	60
CharKukriMukri	24
CharManika	110
Dhalchar	22
Ewajpur	73
Hajariganj	95
Osmangonj	72
RasulPur	109
Daulatkhan	**360**
CharKhalifa	110
CharPata	82
Madanpur	12
Saidpur	96
SouthJoynagar	60
Galachipa	**264**
Bakulbaria	48
Golkhali	108
Kalagachia	48
Ratandi-Taltali	60
Kalapara	**264**
Chakamaiya	47
Champapur	46
Dhankhali	38
Dhulasar	61
Lalua	72
Grand Total	**1453**

Table 10. Household survey sample sizes by upazila, union, and village

Char Fasson Upazila	**565**
Aminabad Union	**60**
Aminabad	24
Halimabad	36
Char Kukri Mukri Union	**24**
Char Kukri Mukri	12
Char Patila	12
Char Manika Union	**110**
Char Aicha	37
Char Fakira	1
Char Kachhapia	47
Char Satyen	2
Dakshin Char Aicha	11
Uttar Char Manika	12
Dhalchar Union	**22**
Char Satyen	22
Ewajpur Union	**73**
Dakshin Char Madras	25
Ewajpur	25
Paschim Ewajpur	23
Hajariganj Union	**95**
Char Fakira	35
Hazariganj	60
Osmangonj Union	**72**
Hasanganj (Part)	24
Osmanganj (Part)	12
Uttar Char Fasson	36
Rasul Pur Union	**109**
Bhasan Char	23
Char Kachhapia	1
Char Shashibhusan	33
Karimpur	24
Rasulpur	16
Uttar Char Aicha	12
Daulatkhan Upazila	**360**
Char Khalifa Union	**110**
Char Didarullah	23
Char Khalifa	38
Char Pata	2
Kalakopa	47
Char Pata Union	**82**
Char Pata	55
Char Patila	2
Nalgora Char	12
Uttar Char Aicha	1
Uttar Char Lamchhi Pata	12
Madanpur Union	**12**
Char Tabgi	12
Saidpur Union	**96**
Char Bara Lamchhi Dhali	12
Char Chhota Lamchhi Dhali	12
Char Subhi	72
South Joynagar Union	**60**
Dakshin Joynagar	36

Paschim Joynagar	24
Galachipa Upazila	**264**
Bakulbaria Union	**48**
Chankhola	12
Lamna	24
Patabunia	12
Golkhali Union	**108**
Bainbunia	1
Balaibunia	11
Bara Gabua	12
Chhota Gabua	12
Golkhali	12
Purba Golkhali	60
Kalagachia Union	**48**
Banshbaria Dariabad	12
Kalagachhia	36
Ratandi-Taltali Union	**60**
Bishnuram	12
Chhota Manik Chand	12
Kacharikanda	12
Nij Haola	12
Ulania Bandar	12
Kalapara Upazila	**264**
Chakamaiya Union	**47**
Bainbunia	12
BetMOUr	11
Chakamaya Nishanbaria	12
Chounga Pasha	12
Champapur Union	**46**
Chalitabunia	12
Machua Khali	24
Patua	10
Dhankhali Union	**38**
Dhankhali	24
Londa	12
Patua	2
Dhulasar Union	**61**
Baoltali Para	12
BetMOUr	1
Char Chapli	12
Nayakata	14
NutanPara	12
Tarikata	10
Lalua Union	**72**
Chandu Para	36
Gandamari	12
Kalau Para(Part)	12
Mahallah Para	12
Grand Total	**1453**

Table 11. GOB Sector Development Plan (SDP) definition of improved water and sanitation facilities

Bangladesh Basic Definition*	Bangladesh Improved Definition*	JMP Definition
Water Supply		
Individual and shared water supply of following types: • Piped water supply • Public stand pipe shared by 100 persons max • Safe water points e.g. tube well, PSF, etc. shared by 100 people max or 5 person (if private)	**Individual and shared water supply of following types:** • Piped water supply • Public stand pipe shared by 50 persons max • Safe water points e.g. tube well, PSF, etc. shared by 50 people max or 5 person (if private)	**Use of improved water source e.g. tube well, protected dug well, ring well, PSF, etc.** *(Irrespective of collection time or distance, or how many people use once source or quality and quantity)*
Sanitation		
Individual and shared latrine of following types: • Flushed and pour-flushed toilet/latrines to piped sewer system or septic tank • Pit latrines with slab and water seal or lid or flap • Pit latrines with slab but no water seal, lid or flap • Ventilated improved pit latrines • Composting latrines	**Individual or shared hygienic latrine shared by maximum two households of the following types:** • Flushed and pour-flushed toilet/latrines to piped sewer system or septic tank • Pit latrines with slab and water seal or lid or flap • Ventilated improved Pit Latrines • Composting latrines	**Individual latrines of the following types:** • Flushed and pour-flushed toilet/latrines to piped sewer system or septic tank • Pit latrines with slab and water seal or lid or flap • Pit latrines with slab but no water seal, lid or flap • Ventilated improved pit latrines • Composting latrines

Source: Ministry of Local Government, Rural Development and Cooperatives, Government of the People's Republic of Bangladesh. Sector Development Plan (FY 2011-25).

Table 12. SDP and JMP estimates of access to improved water and sanitation

	Sector Development Plan (SDP) definition*		WHO/UNICEF JMP definition (2009)
	Basic	**Improved**	**Improved**
Percentage of Water Supply Coverage			
Urban	82%	34%	93.3%
Rural	71%	51%	83.8%
County	74%	50%	85.5%
Percentage of Sanitation Coverage			
Urban	86.4%	58.0%	53.5%
Rural	78.9%	49.9%	54.3%
County	80.4%	51.5%	54.1%

**Source: Ministry of Local Government, Rural Development and Cooperatives, Government of the People's Republic of Bangladesh. Sector Development Plan (FY 2011-25).*

Table 13. Household water fetching time and distance, by upazila

	Daulatkhan		Char Fasson		Kalapara		Galachipa		All	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
Leave homestead to fetch water (%)	82.4%	79.2%	89%	81%	95%	82.4%	80.1%	69.6%	87.1%	78.5%
Average overall distance to household's source of drinking water										
Meters (Avg.)	18.6	92.0	185.6	106.0	132.8	162.0	111.3	71.0	123.7	115.0
Time (minutes) required to fetch water from main water source (including round-trip travel time and waiting time at source)										
Less than 15 min.	59.9%	41.2%	67.1%	38.5%	73.8%	38.6%	49.8%	39.3%	63.6%	39.2%
15-30 min.	37.0%	31.5%	27.7%	36.3%	22.7%	39.0%	39.0%	26.3%	30.5%	34.0%
More than 30 min.	3.1%	27.4%	7.1%	25.2%	3.4%	22.4%	11.2%	34.4%	5.8%	26.8%

Table 14. Sex disaggregation of individuals who fetch water for the household, by upazila

	Daulatkhan	Char Fasson	Kalapara	Galachipa	All
Female	83.2%	84.5%	78.4%	80.8%	81.8%
Male	16.8%	15.5%	21.6%	19.2%	18.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Table 15. Ownership of main source of drinking water, by upazila

	Daulatkhan		Char Fasson		Kalapara		Galachipa		All	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
Own	2.9%	4.0%	3.0%	6.0%	5.3%	2.8%	1.9%	2.8%	3.3%	4.0%
Other HHs	34.3%	36.4%	22.5%	30.2%	8.9%	36.9%	31.5%	22.4%	23.8%	31.5%
Joint	44.6%	25.0%	39.7%	14.8%	33.7%	15.2%	30.9%	29.7%	37.5%	20.1%
Government	9.9%	20.2%	26.3%	30.4%	43.2%	26.4%	28.0%	26.9%	27.1%	26.7%
NGO	8.3%	10.9%	8.5%	12.9%	8.9%	15.0%	7.7%	16.9%	8.4%	14.1%
Community	N/A	1.5%	N/A	4.0%	N/A	0.0%	N/A	0.0%	N/A	1.5%
Other	N/A	2.1%	N/A	0.3%	N/A	4.0%	N/A	0.0%	N/A	1.6%

*N/A means not applicable given that this answer choice was not asked

Table 16. Perceived quality of drinking water, by upazila

	Daulatkhan		Char Fasson		Kalapara		Galachipa		All	
	Baseline	**Endline**	**Baseline**	**Endline**	**Baseline**	**Endline**	**Baseline**	**Endline**	**Baseline**	**Endline**
Good	94.2%	85.1%	90.1%	89.5%	87.6%	88.0%	97.4%	95.0%	92.0%	89.6%
Fair	5.4%	11.4%	7.1%	8.1%	10.7%	8.5%	1.9%	4.9%	7.1%	8.0%
Bad	0.3%	3.4%	3.8%	2.4%	1.8%	3.6%	0.6%	0.1%	1.9%	2.4%
Perceived reasons for not having good quality water (multiple responses allowed)										
	Baseline	**Endline**	**Baseline**	**Endline**	**Baseline**	**Endline**	**Baseline**	**Endline**	**Baseline**	**Endline**
Arsenic	0.0%	4.1%	0.0%	8.2%	2.4%	0.0%	0.0%	0.0%	0.9%	3.5%
Iron compound	50.0%	19.6%	40.8%	0.0%	21.4%	0.0%	12.5%	0.0%	33.3%	4.8%
Salty	55.6%	68.9%	65.3%	78.6%	69.0%	100.0%	37.5%	100.0%	63.2%	85.8%
Muddy	0.0%	31.0%	20.4%	57.9%	38.1%	6.1%	50.0%	0.0%	25.6%	28.0%
Smells bad	0.0%	60.4%	12.2%	24.5%	2.4%	6.1%	0.0%	0.0%	6.0%	25.1%
Germs/diseases	0.0%	0.0%	4.1%	0.0%	2.4%	6.1%	0.0%	0.0%	2.6%	2.7%
Sandy	0.0%	N/A	0.0%	N/A	2.4%	N/A	0.0%	N/A	0.9%	N/A
Other	N/A	20.0%	N/A	0.0%	N/A	0.0%	N/A	0.0%	N/A	4.9%

*N/A means not applicable given that this answer choice was not asked

Table 17. Percent (%) of households that use an improved or unimproved sanitation facility, by upazila

	Daulatkhan		Char Fasson		Kalapara		Galachipa		All	
	Baseline	**Endline**	**Baseline**	**Endline**	**Baseline**	**Endline**	**Baseline**	**Endline**	**Baseline**	**Endline**
Improved latrine	5.5%	20.0%	9.3%	19.1%	15.1%	19.8%	7.7%	19.6%	9.5%	19.6%
Water seal pit latrine	5.5%	20.2%	9.3%	19.1%	15.1%	19.8%	7.7%	19.6%	9.5%	19.6%
Unimproved latrine	94.2%	79.4%	88.5%	79.7%	79.9%	79.6%	84.6%	78.3%	86.9%	79.3%
Pit latrine with slab *	62.4%	51.9%	45.9%	46.6%	42.9%	62.4%	50.0%	50.7%	49.6%	53.2%
Pit latrine, water seal was broken	23.5%	16.7%	9.3%	15.0%	13.0%	9.1%	12.6%	12.1%	13.9%	12.8%
Pit Latrine without slab	5.5%	3.3%	3.0%	3.1%	7.4%	2.8%	2.9%	1.0%	4.5%	2.6%
Open/ hanging latrine	2.9%	7.6%	30.3%	13.4%	16.6%	5.4%	19.0%	13.3%	18.8%	10.0%
Other	N/A	0.0%	N/A	1.5%	N/A	0.0%	N/A	1.2%	N/A	0.7%
No Latrine/Open defecation	0.3%	0.3%	2.2%	1.2%	5.0%	0.6%	7.7%	2.1%	3.6%	1.1%

*Note: The WHO/UNICEF JMP classifies pit latrine with slab as an improved sanitation facility. At baseline, it was classified as unimproved. We list it there for comparability with baseline but note that it should be listed an "improved" source as per WHO/UNICEF JMP definitions.

Table 18. Percent (%) of households with latrine installed above flood level or on higher ground, by upazila

	Daulatkhan		Char Fasson		Kalapara		Galachipa		All	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
Latrine installed above flood level/higher ground	73.4%	77.5%	62.7%	71.9%	40.2%	79.8%	40.8%	74.4%	56.1%	76.0%

Table 19. Maintenance or repairing since main household latrine was installed, by upazila

	Daulatkhan		Char Fasson		Kalapara		Galachipa		All	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
Has maintained/repaired	25.6%	55.7%	41.8%	47.2%	26.2%	44.3%	31.5%	34.2%	32.6%	44.9%
Type of repairing/maintenance work done (Multiple responses)										
Slab/pan fitted	51.4%	32.5%	29.0%	39.0%	26.9%	39.1%	33.3%	26.1%	33.7%	35.5%
New pit dug	2.7%	11.2%	8.0%	16.5%	29.9%	33.4%	88.0%	15.1%	10.7%	20.4%
Ring has been set	51.4%	40.9%	17.6%	34.7%	28.4%	48.0%	14.7%	23.3%	25.3%	38.4%
latrine	32.4%	59.3%	72.7%	57.5%	53.7%	73.9%	68.0%	73.9%	61.0%	65.8%
New pipe has been set	0.0%	1.3%	0.0%	3.7%	0.0%	0.0%	1.3%	0.0%	0.3%	0.4%
Other	N/A	6.0%	N/A	9.4%	N/A	4.0%	N/A	11.0%	N/A	7.2%

N/A means not applicable given that this answer choice was not asked

Table 20. Percent (%) of children <5 with diarrhea in two weeks prior to survey, by upazila

	Male			Female			All Children		
	Baseline	**Endline**	***p-value***	**Baseline**	**Endline**	***p-value***	**Baseline**	**Endline**	***p-value***
Daulatkhan	26.4%	21.3%	*0.33*	20.8%	15.4%	*0.26*	23.5%	18.8%	*0.23*
Char Fasson	20.9%	19.3%	*0.72*	24.3%	7.0%	*0.47*	22.7%	20.0%	*0.47*
Kalapara	13.8%	7.8%	*0.04*	15.5%	11.7%	*0.28*	14.6%	9.9%	*0.07*
Galachipa	15.9%	14.7%	*0.75*	12.0%	14.8%	*0.41*	14.2%	14.8%	*0.84*
Total	19.6%	15.6%	*0.07*	19.3%	15.7%	*0.12*	19.5%	15.7%	*0.03*

Table 21. Percent (%) of children <5 with diarrhea in two weeks prior to survey, by water source

	Improved Water Source		
	Male	**Female**	**All**
Daulatkhan	20.8%	14.8%	18.1%
Char Fasson	18.5%	21.1%	19.7%
Kalapara	7.6%	11.0%	9.4%
Galachipa	14.8%	14.6%	14.7%
Total	15.3%	15.4%	15.4%

Note: Data for unimproved water source not reported due to small sample size. See table above for overall figures.

Table 22. Percent (%) of children <5 with diarrhea in two weeks prior to survey, by sanitation

	Improved Sanitation			Unimproved Sanitation		
	Male	Female	All	Male	Female	All
Daulatkhan	19.1%	12.9%	16.2%	23.8%	19.9%	22.1%
Char Fasson	16.3%	21.3%	18.7%	23.4%	19.9%	21.8%
Kalapara	6.6%	11.2%	9.2%	10.6%	10.5%	10.6%
Galachipa	14.2%	19.0%	16.6%	14.4%	3.1%	8.9%
Total	13.6%	15.8%	14.8%	18.7%	14.1%	16.6%

Note: Does not include no latrine/OD, as sample size is too small for disaggregation, with 24 observations across the entire dataset

Table 23. Availability and type of handwashing point, by upazila

	Daulatkhan		Char Fasson		Kalapara		Galachipa		All	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
Availability of hand washing point within 5 yards from latrine										
Available	30.8%	27.0%	37.8%	32.4%	35.9%	23.3%	27.1%	24.3%	33.4%	26.3%
Availability of hand washing point inside or near kitchen										
Available	21.5%	68.8%	35.8%	54.9%	47.6%	19.3%	24.1%	43.7%	33.0%	46.7%
Type of hand washing point										
At tubewell	11.9%	22.6%	9.1%	24.0%	15.6%	23.5%	24.0%	19.8%	14.0%	22.7%
At tap with running water	0.0%	5.0%	2.8%	4.7%	0.0%	3.1%	4.0%	5.3%	1.7%	4.5%
Basin	N/A	7.2%	N/A	6.1%	N/A	0.0%	N/A	0.0%	N/A	3.5%
Taking water from the bucket/pitcher/jug	13.4%	69.0%	4.5%	30.3%	70.0%	51.4%	40.0%	32.7%	33.3%	42.9%
Tippy Tap	N/A	3.7%	N/A	1.5%	N/A	12.7%	N/A	3.6%	N/A	5.0%
In pond/river/canal	77.1%	30.8%	85.2%	49.5%	24.4%	12.4%	54.7%	44.4%	58.8%	36.2%

N/A means not applicable given that this answer choice was not asked

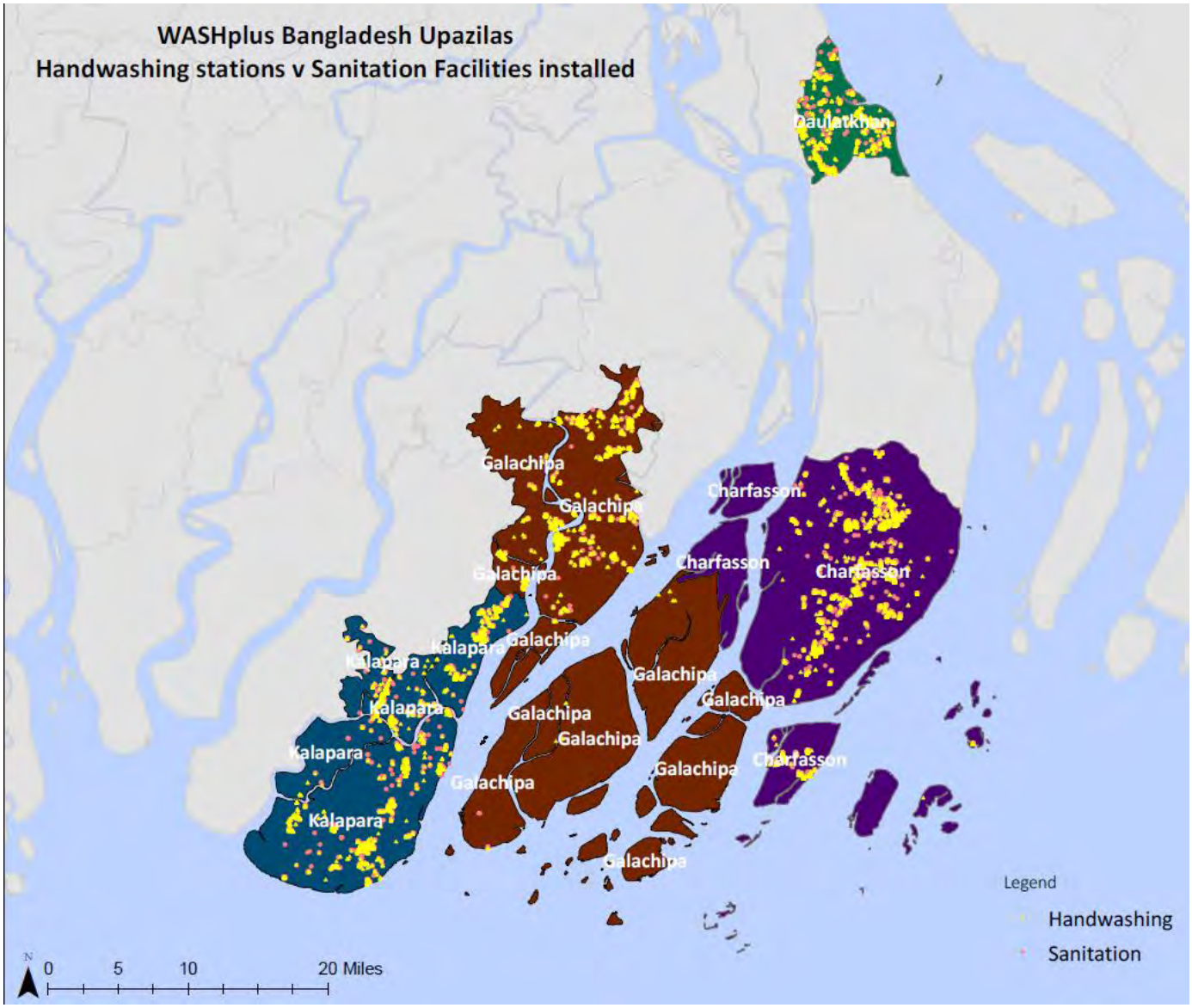


Figure 8. WASHplus-installed hand washing stations and sanitation facilities, by upazila

Table 24. Prevalence of open defecation (OD), by upazila

	Baseline	Endline
Daulatkhan	0.3%	0.3%
Char Fasson	2.2%	1.2%
Kalapara	5.0%	0.6%
Galachipa	7.7%	2.1%
Total	3.6%	1.1%

Table 25. Prevalence of open defecation (OD) when household latrine is flooded, by upazila

	Daulatkhan		Char Fasson		Kalapara		Galachipa		All	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
Yes	48.1%	2.1%	40.2%	10.5%	41.2%	3.2%	15.9%	6.6%	37.9%	6.2%

Table 26. Perceived reasons for washing hands with soap, by upazila

	Daulatkhan		Char Fasson		Kalapara		Galachipa		All	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
Perceived reasons for washing hands with soap (Multiple responses allowed)										
To prevent diarrhea/stomach upset	11.9%	67.1%	14.8%	31.1%	19.2%	53.2%	6.8%	26.0%	13.5%	42.7%
To remain healthy	17.6%	60.9%	18.4%	323.0%	15.7%	52.6%	14.1%	20.7%	16.7%	40.6%
To remain free from germs or diseases	12.5%	63.0%	24.3%	51.1%	24.3%	67.6%	13.5%	52.2%	19.5%	58.3%

Table 27. Hygienic behavior while fetching containers, by upazila

	Daulatkhan		Char Fasson		Kalapara		Galachipa		All	
While going to the point to fetch water does the person cover the mouth of the water container?										
	Male	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
No, Never Cover	3.7%	2.5%	16.8%	8.4%	0.0%	6.8%	5.0%	1.7%	6.8%	5.4%
Yes, Always Cover	71.6%	90.6%	68.9%	83.5%	96.5%	79.4%	84.0%	94.5%	81.1%	86.0%
Yes, Sometimes Cover	24.7%	6.9%	14.3%	8.2%	3.5%	13.8%	10.9%	3.9%	12.1%	8.6%
	Daulatkhan		**Char Fasson**		**Kalapara**		**Galachipa**		**All**	
When bringing the water back to the household does the person cover the mouth of the water container?										
	Male	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
No, Never Cover	3.7%	1.4%	15.7%	5.7%	0.0%	6.8%	2.7%	1.7%	5.9%	4.3%
Yes, Always Cover	73.1%	92.8%	70.1%	87.0%	95.5%	80.6%	86.3%	96.0%	81.9%	88.2%
Yes, Sometimes Cover	23.3%	5.8%	14.3%	7.3%	4.5%	12.6%	10.9%	2.3%	12.1%	7.5%

Table 28. Placement of water containers, by upazila

	Daulatkhan		Char Fasson		Kalapara		Golachipa		All	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
Placement of containers (multiple responses)										
On the floor	43.1%	27.2%	24.1%	32.9%	13.7%	15.2%	13.3%	21.4%	23.2%	24.1%
On a platform .25 yards above the floor	56.9%	72.8%	75.9%	67.1%	86.6%	84.8%	86.7%	78.6%	76.9%	75.9%

Table 29. Handwashing with soap, by upazila

	Daulatkhan		Char Fasson		Kalapara		Galachipa		All	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
Occasions when household members use soap (Multiple responses allowed)										
When washing clothes	98.1%	99.2%	99.2%	83.5%	99.7%	97.9%	98.7%	90.0%	99.0%	92.0%
Bathing/cleaning body	95.5%	97.8%	97.2%	92.0%	100.0%	97.7%	99.7%	96.5%	98.0%	95.7%
Clean hands after defecation	33.2%	82.9%	28.5%	76.4%	27.2%	81.1%	48.2%	81.1%	40.9%	80.0%
Clean hands after cleaning child's excreta	2.3%	76.3%	5.1%	56.6%	2.7%	60.4%	28.0%	44.4%	33.4%	58.3%
Clean hands before feeding child	2.3%	50.1%	5.1%	23.8%	2.7%	30.9%	28.0%	12.2%	8.8%	27.8%
Clean hands before eating	1.6%	46.1%	2.0%	20.1%	3.6%	24.0%	7.7%	11.0%	3.5%	23.6%
Clean hands before cooking	0.6%	32.6%	2.2%	29.3%	3.6%	21.7%	4.5%	17.8%	2.7%	25.0%
Clean hands after cooking	3.2%	33.6%	11.3%	33.3%	4.1%	34.9%	29.9%	45.0%	11.9%	36.5%
Clean hands after completing domestic chores	7.7%	36.0%	22.1%	36.0%	39.1%	53.0%	21.2%	52.5%	22.8%	44.9%
After cleaning utensils	2.9%	N/A	6.3%	N/A	9.2%	N/A	10.9%	N/A	7.2%	N/A

*N/A means not applicable given that this answer choice was not asked

Table 30. Use of soap for different purposes, by upazila

	Daulatkhan		Char Fasson		Kalapara		Galachipa		All	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
Same soap use for all purposes	13.6%	3.4%	6.5%	5.4%	4.5%	1.9%	3.9%	7.5%	7.0%	4.5%
One soap for cleaning bathing/ another for all other purposes	47.7%	30.6%	59.7%	29.1%	59.7%	25.8%	20.8%	21.1%	48.8%	26.5%
Separate soap for each purposes	38.7%	66.0%	33.7%	65.5%	35.8%	72.3%	75.2%	71.4%	44.2%	69.0%

Table 31. Main sources of water for cooking and washing utensils, by upazila

	Daulatkhan		Char Fasson		Kalapara		Galachipa		All	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
Shallow tubewell	34.0%	41.9%	3.6%	20.4%	7.7%	15.7%	12.9%	15.8%	13.1%	21.6%
Deep tubewell	12.2%	12.2%	4.7%	0.7%	4.4%	1.6%	0.6%	0.5%	5.4%	2.9%
Protected well	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
Unprotected well	0.0%	0.3%	1.6%	0.0%	0.0%	0.5%	0.0%	0.0%	0.5%	0.2%
Rain water collection	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Surface water	53.8%	45.6%	89.9%	78.9%	87.9%	4.9%	86.5%	83.6%	81.0%	75.3%

Table 32. Cleanliness of latrines, by upazila

	Daulatkhan		Char Fasson		Kalapara		Galachipa		All	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
Has brush/broom to clean fecal sludge										
Yes	7.6%	38.2%	12.6%	16.1%	13.7%	30.6%	12.2%	23.7%	11.6%	26.3%
Place of disposal of fecal sludge of latrine (Multiple responses)										
Septic tank	4.8%	80.9%	10.2%	62.5%	9.0%	90.8%	8.4%	69.4%	8.3%	76.3%
Hygienic pit or hole/latrine	26.6%	55.2%	31.8%	40.4%	40.0%	69.1%	47.7%	55.3%	34.2%	55.4%
Unsafe pit/tank	61.2%	17.4%	29.2%	28.7%	47.7%	13.9%	30.7%	17.9%	41.1%	19.6%
River/canal	2.1%	3.2%	22.1%	6.1%	4.3%	2.3%	4.6%	2.1%	10.0%	3.5%
Pond/ditch	4.8%	0.8%	6.4%	1.2%	3.5%	0.5%	10.9%	1.5%	6.3%	1.0%
Field/cropland	0.3%	0.0%	0.7%	0.9%	3.9%	0.0%	1.7%	0.9%	1.5%	0.5%
Fecal sludge goes to canal water through pipe	0.0%	N/A	0.2%	N/A	0.0%	N/A	0.0%	N/A	0.1%	N/A
Other	N/A	0.0%	N/A	0.2%	N/A	0.0%	N/A	0.2%	N/A	0.1%

Table 33. Means of financing the maintenance of main household water source, by upazila

	Daulatkhan		Char Fasson		Kalapara		Galachipa		All	
	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
Own money	4.2%	82.6%	15.7%	69.4%	28.9%	85.9%	3.1%	81.6%	11.0%	77.1%
Monthly contribution of group members	0.0%	0.0%	0.0%	3.2%	2.6%	0.0%	1.5%	0.0%	0.7%	1.4%
spend money as and when required	95.8%	8.3%	84.3%	18.3%	65.8%	0.0%	93.8%	18.4%	87.7%	12.8%
No need to pay yet for maintenance/no money was spent	0.0%	9.1%	0.0%	9.2%	2.6%	14.1%	1.5%	0.0%	0.7%	8.7%

Note: At end-line, was asked only of households who own their own water source

Table 34. Contribution to community fund for main household water source, by upazila

	Daulatkhan	Char Fasson	Kalapara	Galachipa	All
Yes	10.7%	13.8%	4.6%	4.6%	8.0%
Among those who did not contribute, reason for not contributing					
No money	3.4%	0.6%	3.1%	3.8%	2.7%
Wasn't asked to	56.3%	47.9%	53.4%	82.1%	59.1%
Didn't know about it	15.0%	12.0%	21.0%	10.4%	15.4%
Not interested	7.1%	2.5%	3.4%	1.5%	3.3%
Do not use that source	32.9%	43.3%	39.4%	15.6%	33.8%

Note: contributions go toward installation, operation, and/or maintenance

Table 35. Union Parishad WASH budget information, FYs 2012-13, 2013-14, 2014-15

		FY 2012-2013				FY 2013-14				FY 2014-2015			
Upazila	Union	Total Budget (Tk)	WASH Plan	WASH budget	% WASH/ total	Total Budget (Tk)	WASH Plan	WASH budget	% WASH/ total	Total Budget (Tk)	WASH Plan	WASH budget	% WASH/ total
Char Fasson	Aminabad	3,043,500	No	643,721	21.2%	2,555,500	Yes	622,000	24.3%	3,769,980	Yes	784,000	20.8%
Char Fasson	Char Kukri Mukri	2,071,299	No	500,000	24.1%	2,264,396	Yes	141,450	6.2%	2,834,697	Yes	241,450	8.5%
Char Fasson	Char Manika	2,682,720	No	270,000	10.1%	11,940,134	Yes	2,111,250	17.7%	11,448,227	Yes	217,150	1.9%
Char Fasson	Dhal Char	1,889,900	No	500,000	26.5%	2,128,900	Yes	455,150	21.4%	2,393,215	Yes	332,315	13.9%
Char Fasson	Ewajpur	2,778,600	No	185,750	6.7%	4,344,890	Yes	300,000	6.9%	6,070,390	Yes	450,000	7.4%
Char Fasson	Hazarigonj	2,013,828	No	541,000	26.9%	25,460,553	Yes	1,950,227	7.7%	25,359,122	Yes	2,046,834	8.1%
Char Fasson	Osmanganj	3,328,800	No	198,000	5.9%	12,748,241	Yes	300,000	2.4%	11,686,540	Yes	600,000	5.1%
Char Fasson	Rasulpur	3,100,000	No	564,542	18.2%	15,620,643	Yes	2,791,000	17.9%	6,868,079	Yes	3,240,000	47.2%
Daulatkhan	Char Khalifa	3,671,332	No	205,000	5.6%	12,314,142	Yes	2,030,000	16.5%	14,487,311	Yes	270,000	1.9%
Daulatkhan	Char Pata	4,205,000	Yes	269,000	6.4%	11,240,712	Yes	1,000,000	8.9%	9,886,971	Yes	800,000	8.1%
Daulatkhan	Dakkhin Joynagar	3,361,122	No	200,000	6.0%	12,015,309	Yes	480,000	4.0%	12,749,680	Yes	500,000	3.9%
Daulatkhan	Madanpur	1,477,457	No	.	.	7,679,829	Yes	400,000	5.2%	9,982,715	Yes	450,000	4.5%
Daulatkhan	Saidpur	3,417,621	No	.	.		.	.	.	.	.	.	.
Galachipa	Bakulbaria	7,440,000	No	292,000	3.9%	9,820,000	Yes	550,000	5.6%	11,815,000	Yes	600,000	5.1%
Galachipa	Golkhali	6,049,998	Yes	762,000	12.6%	8,380,546	Yes	347,311	4.1%	29,431,637	Yes	400,000	1.4%
Galachipa	Kalagachia	7,500,000	No	.	.	8,020,000	Yes	100,000	1.2%	9,563,200	Yes	100,000	1.0%
Galachipa	Ratandi Taltoli	3,301,442	No	210,000	6.4%	3,541,660	Yes	200,000	5.6%	11,140,310	Yes	150,000	1.3%
Kalapara	Chakamoiya	4,705,938	Yes	287,445	6.1%	3,534,622	No	.	.	12,829,047	Yes	1,635,947	12.8%
Kalapara	Champapur	4,205,962	Yes	960,000	22.8%	5,127,513	Yes	716,709	14.0%	.	.	.	
Kalapara	Dhankhali	5,548,358	Yes	787,691	14.2%	6,127,189	Yes	787,691	12.9%	14,234,906	Yes	1,269,987	8.9%
Kalapara	Dhulasor	3,590,691	Yes	740,000	20.6%	12,692,330	Yes	881,000	6.9%	12,987,187	Yes	900,000	6.9%
Kalapara	Lalua	5,261,593	Yes	70,000	1.3%	13,147,450	Yes	1,000,000	7.6%	15,128,446	Yes	1,963,331	13.0%

Notes: WASH actual expenditures for 2013-2014: All were reportedly the same as the total WASH budgets except Lalua (where funds were spent on dam repairing), and Saidpur for which no data was obtained for 2013-2014 (contact person at UP on sick leave). WASH actual expenditures for 2014-2015: All were reportedly the same as the total WASH budgets except Lalua (where funds were spent on dam repairing), Dhulasur (546,739 actual expenditures vs 900,000 allocated), and Saidpur and Champapur for which data could not be obtained for 2014-2015.

ANNEX F: WASHPLUS FINAL EVALUATION PHOTOS

Photo 1. Focus group discussion with men from beneficiary households (Char Fasson)

Photo 2. Secondary school demonstration on handwashing (Char Fasson)

Photo 3. Bazaar latrine with caretaker (Char Fasson)

Photo 4. Latrine maker (Char Fasson)

Photo 5. Latrine maker with training manual (Char Fasson)

Photo 6. Tube well (Daulatkhan)

Photo 7. Focus group discussion with CDF and mother groups (Daulatkhan)

Photo 8. Tube well caretakers demonstrating repairs (Daulatkhan)

Photo 9. Mother group (Daulatkhan)

Photo 10. Latrine maker (Daulatkhan)

Photo 11. Latrine maker (Daulatkhan)

Photo 12. Upazila chairman, staff, and ward WATSAN committee (Galachipa)

Photo 13. Tube well (Galachipa)

Photo 14. Latrine maker (Galachipa)

Photo 15. Bazaar latrine (Galachipa)

Photo 16. Tube well (Galachipa)

Photo 17. Primary school latrine (Kalapara)

Photo 18. Primary school handwashing device (Kalapara)

Photo 19. Primary school tube well (Kalapara)

Photo 20. WASHplus poster (Kalapara)

Photo 21. WASHplus sign (Kalapara)

Photo 22. Tube well sign with AWAS staff (Kalapara)

Photo 23. Tube well (Kalapara)

U.S. Agency for International Development

1300 Pennsylvania Avenue, NW

Washington, DC 20523