



RELIEF INTERNATIONAL

GHANA WATER, SANITATION, AND HYGIENE (WASH)
PROJECT

FINAL REPORT

December 9, 2009-March 31, 2014

COOPERATIVE AGREEMENT N° 641-A-00-10-00003-00

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LIST OF ACRONYMS

ADRA	-	Adventist Development and Relief Agency
BCC	-	Behavior Change Communication
CONIWAS	-	Coalition of NGOs in Water and Sanitation
COP	-	Chief of Party
CWSA	-	Community Water and Sanitation Agency
DA	-	District Assembly
DCOP	-	Deputy Chief of Party
DST	-	District Steering Team
DWST	-	District Water and Sanitation Committee
D/MWST	-	District and Municipal Steering Team
EOP	-	End of Project
FY	-	Fiscal Year
GDA	-	Global Development Alliance
GETF	-	Global Environment and Technology Foundation
GWASH	-	Ghana WASH Project
KVIP	-	Kumasi Ventilated-Improved Pit
LNGO	-	Local Non Governmental Organization
LOP	-	Life of Project
M&E	-	Monitoring and Evaluation
MDG	-	Millennium Development Goals
MWST	-	Municipal Water and Sanitation Committee
NGO	-	Non Governmental Organization
PCV	-	Peace Corps Volunteer
PMP	-	Performance Management Plan
PPP	-	Public Private Partnership
RFA	-	Request for Application

RI	-	Relief International
SHEP	-	School Health Education Program
SO	-	Strategic Objective
SWN	-	Safe Water Network
USAID	-	United States Agency for International Development
USG	-	United States Government
WADA	-	Water and Development Alliance
WASH	-	Water, Sanitation, and Hygiene
WATER NGO	-	Water in Africa through Everyday Responsiveness NGO
WI	-	Winrock International
WSDB	-	Water and Sanitation Development Board
WHC	-	Water Health Center
WHI/G	-	Water Health International / Ghana

1 BACKGROUND, GOALS AND OBJECTIVES

The Ghana Water, Sanitation and Hygiene (GWASH) Project is an innovative project that supports efforts by other development partners to scale up access to improved water and sanitation infrastructures for the not-served and underserved population as well as promote the adoption of complementary hygiene practices. The long-term goal of the Ghana WASH Project is to maximize health impacts in the project target areas. In the immediate term, the project aims to improve access to safe and adequate water supply, basic sanitation infrastructure for households, clinics, and schools and to promote complementary hygiene practices to maximize the health impact from this improved infrastructure.

To achieve these goals, Relief International partnered with Winrock International and the Adventist Development and Relief Agency (ADRA). The project is also collaborating with other United States Agency for International Development (USAID) strategic partners including Rotary International and The Coca Cola Company that have existing Global Development Alliances (GDA) with USAID, as well as with WaterHealth International (WHI), Safe Water Network (SWN) and other Ghanaian partners with mutual interest in improving the WASH sector in Ghana. The project covers underserved populations in Ghana in five regions: Central, Eastern, Greater Accra, Volta and Western.

The project had five key objectives:

Objective 1: Increase access to improved water and sanitation infrastructure for individual households, communities, schools, and clinics in the target areas.

Objective 2: Assist in developing innovative modes of establishing new infrastructure.

Objective 3: Improve the capacity of (a) small grant recipients to mobilize community members to actively participate in the improvement and maintenance of water and sanitation infrastructure, and (b) local official bodies and private sector partners that provide support for these efforts,

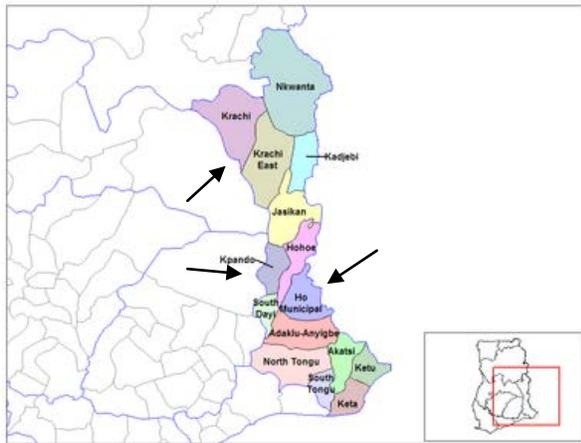
Objective 4: Support the development of behaviors that result in: (a) WatSan infrastructure that is well utilized by target communities and (b) increased adoption of complementary hygiene behaviors that will reduce waterborne diseases.

Objective 5: Manage existing partnerships and potentially develop new partnerships with private sector and/or voluntary organizations committed to achieving the same results.

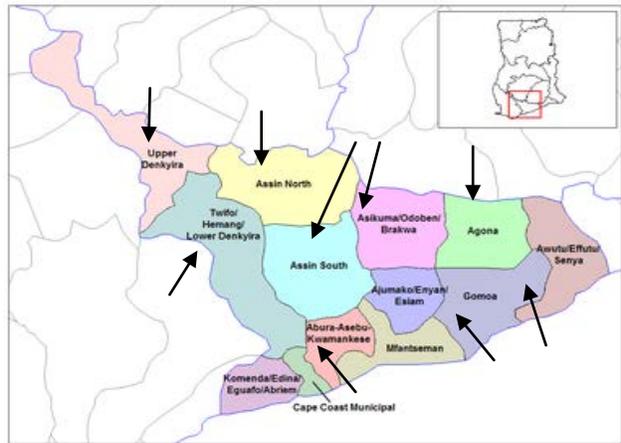
The attainments of these objectives contributed to the achievement of USAID/Ghana's health sector Strategic Objective 7 (SO7) and Intermediate Results 4 (IR4). During the course of implementing the project, the Performance Management Plan (PMP) was modified and approved by USAID/Ghana.

Graph 1: GWASH Project Locations

Volta Region



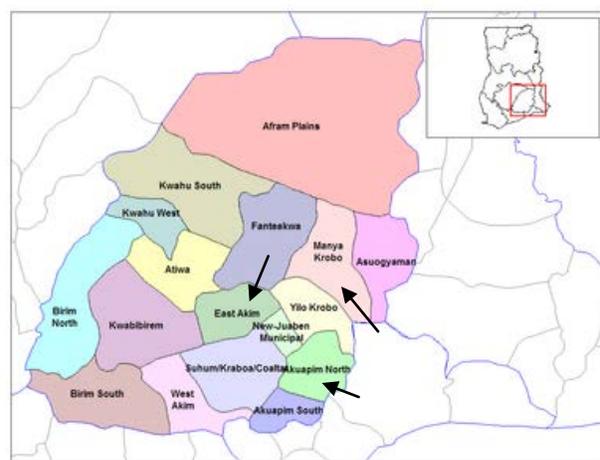
Central Region



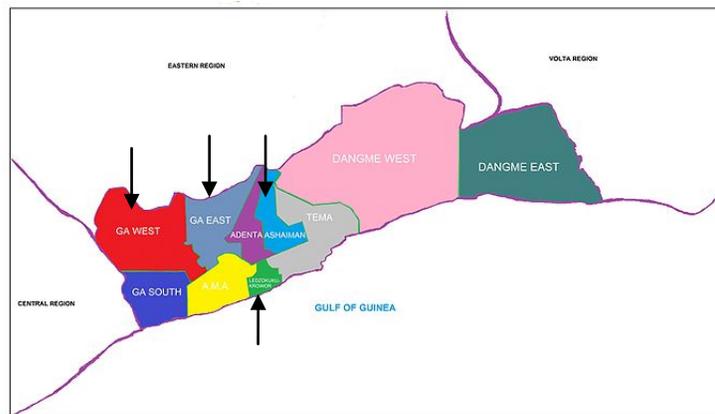
Western Region



Eastern Region



Greater Accra Region



2 SUMMARY OF ACHIEVEMENTS

The GWASH Project was largely successful in achieving all of its deliverables, both in terms of hardware and software provided to the communities.

In terms of **water infrastructure**, the project exceeded by 62% its target , and reached 97,800 people (LOP target was 60,300) through the construction of 162 boreholes, 38 hand dug wells, 2 water pipe systems, and 11 surface water kiosks. The GWASH project also made extensive gains in improving community water access through two innovative initiatives in Central Ghana: manual drilling and borehole repairs. Over the course of the project, 77 pumps were repaired in 64 communities and 40 boreholes were manually drilled in Assin North and South. Manual drilling and borehole repairs benefited a total of 23,100 and 12,000 people, respectively.

As for the **sanitation infrastructure**, the GWASH project also exceeded its targets of 5,408 household latrines, and constructed a total of 5,480 (an additional 72 latrines). The project also constructed 144 institutional latrines in 120 schools, 22 clinics and one lorry station. RI surpassed its initial project target of 131 latrines.

The original concept of the **small grants initiative** was to support innovative software ideas that address water and sanitation issues at the community level. However, during the course of the project the Small Grants Facility experienced a high demand from Peace Corps Volunteers, community based organizations and Watsan committees. Most of which sought to address hardware needs. In order to satisfy these needs and continue to ensure that the initial concept of the Small Grants was achieved, all grantees were tasked to make sure to reinforce the essentiality of software activities (hygiene education, behavior change communications and messaging) in funded activities. The Small Grants Facility received an overwhelming response from WatSan Committees, Peace Corps Volunteers, largely in part to RI's efforts to ensure the opportunity was widely disseminated. Over the project period, the Small Grants Facility funded over 40 projects, including six software-only applications, totaling \$325,000 in funding.

The **capacity building** component targeted various actors. The project built the capacities of i) 11 LNGOs who were trained in community entry and animation, community profiling, analyzing techniques, action plan development, participatory methodologies, and communication and presentation skills; ii) 277 WatSan Committees (operation and maintenance of the water facilities) and 467 Community Based Hygiene Promoters (effective use of the hygiene facilitation tools/methods) ; iii) 300 teachers and School based health coordinators (SHEP training); iv) 442 food vendors in food hygiene and safety practices, basic nutrition and healthy eating, as well as hand-washing techniques; v) 332 artisans in latrine construction; and vi) two drilling enterprises in manual drilling.



Picture 1 : Ghana Wash project field staff interact with school children during a SHEP activity

As for the **BCC (Behavior Change Communication)** activities, the GWASH targeted to train 78,387 people in behavior change and hygiene messages. GWASH exceeded this deliverable by over 15,000 people and trained a total of 94,831 individuals. GWASH also trained 21,153 students, exceeding the project target of 10,900 by 100 percent.

Under the fifth component of the project, **Public-Private Partnerships (PPPs)**, RI collaborated and developed partnerships with local and international private sector partners , and continued to support the implementation of project activities already established with PPP agreements. This included partnerships with Safe Water Network/Hilton Foundation, PricewaterhouseCoopers Ghana Limited, Barry Callebaut, Water NGO and Ernst & Young. Through these partnerships the project leveraged \$1,110,776.75.

3 CHALLENGES ENCOUNTERED DURING THE PROJECT PERIOD

Even though the project has recorded very impressive results and all targets specified in the PMP were exceeded, it faced some challenges that are highlighted below.

Challenges Associated with the Coca-Cola WADA Partnership: The GWASH project was initially designed as a rural project, yet the Coca-Cola WADA partnership was implemented in a peri-urban village. As a result, it was critical for RI and partners to tailor strategies, technologies and efforts to local WASH sector conditions, as well as the needs and existing capabilities of stakeholders. Based upon the GWASH experience working in different communities, it became clear a variety of strategies should be used in rural areas and peri-urban areas. The participation of communities throughout project implementation, attendance at community meetings and support and interest in behavior change activities were, across the board, higher in the rural areas than in the peri-urban areas targeted by this partnership.

Small Town Piping Systems Delays: Completing the two small town piping systems in Bokabo and Elluokrom in Western Region has been a challenge for the project for two reasons. Firstly, the contractor took contracts from the government and diverted some of the funds received from GWASH into executing those contracts. He thought that the government would pay him in a timely manner so he could put the money toward the costs of completing the contract agreement. Secondly, the challenging road network in this area of the Western Region meant that the contractor was unable to make serious progress during the rainy season, which delayed progress. The project re-strategized and revised the project work plan to maximize outputs during the dry season; the project also provided the contractor with enough money to buy and transport the materials needed for the project to both sites during the dry season. This ensured the eventual completion of the two small town water piping systems. In September 2013, the Elluokrom system was completed and the one in Bakabo in March 2014.

Massive demand for household latrines: The triggering activities in the CLTS communities resulted in an unanticipated demand for household latrines that far exceeded expectations. To address this increased demand and focus on CLTS interventions in current communities, the GWASH project reduced the number of CLTS communities in addition to offering latrine building to select beneficiaries in each targeted community. Beneficiaries have been selected based on their commitment to CLTS and their progress with regards to digging the pits and acquiring their materials.

Software Funding Challenges in 2013: Another challenge that the project faced at the close of 2013 was the lack of adequate funds to implement planned activities on the software side of

the project. With the original end of project date of September 30 2013, the last quarter of 2013 should have been dedicated to closeout activities. However, due to the anticipated six-month extension with additional deliverables, the GWASH project chose to press forward with activities during this period, although limited funds were available. In the future, it will be beneficial to receive approval for a cost extension earlier on during the life of the project to avoid the project grinding to a halt before restarting again and getting up to full speed again in the extension period.

Government of Ghana Changes for ODF Protocol: For the past four years, the GWASH Project has been working towards assisting communities in attaining ODF status using project indicators, which were adapted from those set by the Government of Ghana. During the project's fourth year, the Government of Ghana developed a new protocol and different indicators for determining ODF status. This ultimately forced GWASH to reorient its strategy and approach to achieving ODF certification during a late stage in the project.

Challenging Collaboration with District and Municipal-Level Government: Several district and municipal-level officials were designated as WASH team members and had the responsibility of managing, monitoring and supporting the water and sanitation infrastructure development efforts in their respective jurisdictions. Motivating district and municipal-level officials to support this bilateral initiative proved to be a major stumbling block due to their demands and requests for "sitting fees," per diem, and transportation reimbursement. This ultimately impeded project implementation.

Varying LNGO Performance: Uneven performance on the part of LNGOs in the field led to major implementation challenges: varying levels of attendance and participation in training sessions, water and sanitation groups, SHEP trainings, and school-based activities. RI developed a "lesson learned" document regarding this issue.

High turnover of LNGO field officers and frequent transfers of District Water and Sanitation staff: As a result of high-turnover, GWASH field officers frequently had to re-train new LNGO field staff and District Officers, which delayed the implementation of activities. To address this challenge, the GWASH Deputy Chief Of Party (DCOP) held discussions with LNGO directors to ensure that new field staff members were properly trained by outgoing field staff and GWASH staff before they began implementing field activities on their own. Working with multiple district staff members helped facilitate a smooth transition and knowledge transfer to newly appointed District Officers.

Working With Government to Implement CLTS Approach: The project faced challenges collaborating with Environmental Health Assistants in siting household latrines in Awutu Senya

and Agona East districts due to conflict between the project's "hybrid" (partial subsidy) CLTS approach in contrast with the national "pure" CLTS approach (no subsidy). Once the project shifted to a more deliberate approach for district team involvement in project implementation of the CLTS component, EHAs and CDOs were more actively involved in project activities. For example, the training provided to EHAs and CDOs by GWASH staff built the capacity of the government to conduct ODF assessments and verifications, something which had not been adequately planned for with the rollout of the GoG CLTS policy. This type of collaboration was both aligned with the needs of the GoG's pure CLTS approach while assisting the GWASH project with implementation of the hybrid CLTS model.

Low Retention of Trained Household Latrine Artisans: Due to their other competing economic opportunities, the trained household artisans were often not available for the construction of the latrines.

Beneficiaries' inability to provide sufficient materials as part of their contribution: This caused delays in the construction of the HH latrines in all CLTS districts, particularly as the completion stage approached. Field staff members conducted house-to-house visits to encourage the beneficiaries to mobilize their materials so that the facilities can be completed. In subsequent phases of the CLTS efforts, the project adopted a strategy to mobilize the community contributions before the GWASH materials are supplied.

Delays in the provision of materials: Coupled with the aforementioned challenge, there were delays in the provision of materials from the suppliers for the sub-structure of the HH latrines. As a result, many pits dug by the beneficiaries were temporarily left open. The GWASH team worked with the suppliers to ensure prompt distribution of the materials while securing each of the HH latrines with reflective tape as a safety measure.

4 PROJECT OBJECTIVES AND TARGETS ACHIEVED

By the middle of the final year of the project, most deliverables for the life of the project had already been exceeded, especially for water and sanitation hardware. The project therefore far exceeded many of the targets set out at the outset.

4.1 Component 1: Infrastructure development

The following activities were successfully carried out to achieve the key objectives under this component:

- Conduct hydro-geological surveys to select sites for boreholes
- Drill boreholes and hand dug wells and install pumps
- Construct small town water systems
- Construct surface water kiosks
- Construct rain water harvesting systems
- Construct household and institutional latrines
- Establish hand washing facilities

4.1.1 Number of people in target areas with access to improved water supply as a result of USG assistance

By its completion, GWASH had completed its water facilities to benefit 97,800 beneficiaries amounting to 162% of the Life of Project (LOP) total.

The first indicator in the Performance Management Plan (PMP) provides a measurement via the number of beneficiaries reached.



Picture 2: Boreholes lighten water fetching load for women

Table 1 Number of people with access to safe water by facility type: PMP Indicator #1

Facility	Beneficiary per facility	LOP Objective	LOP Completed	LOP % Reached
Boreholes	300	22,500	48,600	216%
Hand Dug Wells	150	4,800	5,700	119%
Small Town Pipe Systems	2,500	5,000	5,000	100%
Surface Water Kiosks	3,500	28,000	38,500	138%
Total		60,300	97,800	162%

4.1.2 Number of improved water supply facilities constructed and functioning

As PMP No. 3 indicator provides similar information based on the facilities delivered, Table 2, below, summarizes that information.

Table 2: Number of water facilities provided by the GWASH Project: PMP indicator #3

Facility	LOP Objective	LOP Completed	LOP % Reached
Boreholes	75	162	222%
Hand Dug Wells	33	38	115%
Small Town Pipe Systems	2	2	100%
Surface Water Kiosks	8	11	137%
Total	117	213	108%

4.1.3 Number of litres of (rain) water storage capacity provided for hygienic use

During the course of the project, GWASH revised upward the rain water storage capacity targets in the PMP to rectify the fact that all institutional KVIP (Kumasi Ventilated Improved Pit) rainwater storage capacity was omitted from the original PMP. By the end of the project, GWASH had exceeded by 47% the LOP objective for rainwater harvesting storage capacity. In addition to the institutional KVIP rainwater storage, GWASH also completed a few rainwater harvesting projects during the life of the project:

1) **LEKMA South and North Cluster of Schools, Teshie, Greater Accra Region** – Under the WADA initiative, due to budgetary constraints, no rainwater harvesting facility was planned for the second biogas treatment facility being built with Coca-Cola resources. The GWASH Project and USAID/Ghana found that to be unacceptable. A 150,000 liter rainwater harvesting facility was constructed and is in use at the South LEKMA campus. At LEKMA North, a rainwater harvesting system was also needed, despite the school’s funding challenges. While not budgeted for in the original project proposal, it became obvious that the sustainability of the North LEKMA facility would be unlikely if the school was required to buy trucked-in water as the exclusive avenue for providing water for toilet flushing and feeding into the bio-gas treatment plant. GWASH Project made the decision to use Small Grants Funding as a means of correcting this oversight and providing additional funds so that there was a higher likelihood of success through the collection and storage of rainwater at the LEKMA North facility. This facility has been completed and is in use.

2) **State School for the Deaf, Adjei Kojo, Greater Accra Region** – Dr. Elias Aklaku won an innovation award for his use of geodesic weight bearing technology in the building of an

underground water storage facility. To expand on his innovation, GWASH worked with Dr. Aklaku to put his award-winning idea into operation in Ga West. Lindsey Hanson, a PCV who works at the Accra School for the Deaf in Adjei Kojo, Ashiaman Municipality, submitted an application for a Small Grant to improve the water situation at her school. Unfortunately, the school sits in an area where the conditions have been unfavorable in hitting potable water via borehole drilling (as the groundwater in those areas has been found to be highly saline). We assisted the school by piloting Dr. Aklaku’s rainwater harvesting project. The system includes two underground geodesic domes capable of storing a total 60,000 gallons of water, rain gutters and conduit pipes. Construction was complete in August 2013, in time for the start of the school term this year. The system is functioning and in use by the students without any

3) Additional I-KVIPs via the Small Grant Facility

The project continued to build a modest number of institutional KVIPs via the Small Grant Facility mechanism (20 across Western and Volta Regions, as well as many in the Cape 3 Points area through our partnership with Peace Corps Volunteers). As our I-KVIP models all contain rainwater harvesting as part of the model, these facilities have also contributed to achieving the deliverables under Indicator 4 of the PMP.

Table 3: Number of liters of (rain) water storage capacity provided for hygienic use: PMP indicator #4

Facility	LOP Objective	LOP Completed	LOP% Reached
Stand alone Rainwater Storage Facility	300,000 liters	510,000 liters	170%
Safe Water Storage Facility	40,000 liters	40,000 liters	100%
Institutional KVIP rainwater storage capacity	154,000 liters	180,600 liters	117%
Total	494,000 liters	730,600 liters	147%

4.1.4 Number of people in target areas with access to improved sanitation facilities as a result of USG assistance

GWASH made a full transition to a low-subsidy hybrid CLTS approach to household latrine construction. This change meant that beneficiaries had to more than double their material contributions to their own latrine building activities. While this shift has offered its own set of challenges, it has nonetheless yielded positive results.

We were able to build community demand through triggering and re-triggering sessions, coordinate the distribution of household contributions with suppliers and local latrine artisans, and lastly, make excellent use of the dry season for construction activity. Our outcomes and results demonstrate the project has the capacity to drive communities into taking responsibility and initiative for their sanitation needs then pushing that triggering process along through low subsidy support for those efforts.

GWASH met its institutional latrine targets and received additional requests for 1 institutional latrine facilities (as well as the accompanying software) through the Small Grants Facility, and approved a number of those requests.

Table 4: Number of People with Access to Improved Sanitation Facilities (No. Facilities in parentheses)

Facility	Beneficiaries per facility	LOP Objective	Completed (Cumulative)	LOP % Reached
Institutional KVIP 4 – seat model	240	18,000	19,680	109%
Institutional KVIP 6 –seat model	360	11,880	15,120	127%
Institutional KVIP 2 –seat model	120	120	0	0%
Institutional WC (12 seat)	720	720	1,440	200%
Household Latrines	8	37,440	43,840	117%
Total		68,160	80,080	117%

4.1.5 Number of improved institutional level latrines constructed and functioning

As mentioned above, GWASH completed all institutional sanitation facilities. That said, we have received a score of Small Grant applications from DWSTs, PCVs and other local stakeholders to provide additional school and clinic latrines (and the accompanying software) in



Picture 3 : School latrines in Ga-East

communities not currently targeted by the project. We

provided guidance to the applicants, particularly with PCVs, to cluster their activities as practical and feasible so that an intervention in a certain area has the opportunity to increase its impact and also be managed efficiently within the time remaining on the project. In the past year, we have made substantial progress in constructing these facilities.

Table 5: Number of Institutional latrines Constructed

Facility	Beneficiaries per facility	LOP Objective	Completed (Cumulative)	LOP % Reached
Institutional KVIP 4 – seat model	240	75	82	109%
Institutional KVIP 6 –seat model	360	33	42	127%
Institutional WC (12 seat)	720	1	2	200%
Total		110	126	114%

4.1.6 Number of hand-washing facilities established for institutions

Each Institutional KVIP (I-KVIP) constructed has a hand-washing facility as part of the contract deliverables. As such, the indicator is mirrored by PMP No. 6. In total, 126 hand-washing facilities have been constructed and are functioning at present, surpassing our project target of 110 hand-washing facilities. The number completed therefore represents about 117% of the LOP target.

4.1.7 Number of improved household latrines constructed and functioning

In terms of household latrine activities, 5,480 household latrines have been completed at the end of the project. Having achieved our institutional latrine targets early on, we shifted more personnel from the community and institutional efforts to working full time on our CLTS and household latrine building initiatives. This has clearly reaped benefits.



Picture 4 : B.Adomako and his new household latrine - Juabeso, Western Region

Table 6 Household Latrine Construction

Facility	LOP Target	Completed to Date	LOP reached	%
Household Latrines	4,680	5,525	100.8%	

4.1.8 Innovation contest - Number of entities receiving awards/grants for WASH Sector innovations and improvements

During the project, an innovations contest was organized to respond to Indicator 8. The innovations contest was undertaken with a view to challenging experts in the WASH Sector of Ghana to present new and innovative ideas to address both hardware and software issues that exist in the sector. Winners of this contest were assisted to pilot their innovations.

Table 7: Full List of Contest Winners, by Category

CATEGORY	AWARD	INNOVATION	AWARD WINNER	STATUS
Water Technology – Hand Pumps	1st Prize - \$8,000	Trapezoid Model Rope Pump	Rexford Kwadwo Fosu – Sakofs Engineering Kumasi	Not Funded Pilot Activity – Experimental pump technologies are not welcomed by GOG partners in Ghana.
Water Technology – Hand Pump	2nd Prize - \$3,000	Aziz Hand Pump	Aziz Adam Ventures – Kumasi	Not Funded – Experimental pump technologies are not welcomed by GOG partners in Ghana.
Water Technology – Rainwater Harvesting	1st Prize - \$8,000	Fixed Dome Reservoir for Rainwater Harvesting	Dr. Elias Delali Aklaku – BioGas Engineering Ltd.	Funded Activity – Design implemented for rainwater harvesting and storage system at State School for the Deaf, Adjei Kojo, Greater Accra Region
Sanitation Technology – Household Latrine	1st Prize - \$8,000	Three in One VIP Latrine Design	Ernest Tay Awoosah	Funded Activity – Design implemented to create a disability-friendly toilet for community beneficiary in Afuaman community, Greater Accra Region
Sanitation Technology – Household Latrine	2nd Prize - \$3,000	Trench Latrine System with Waste Water flushing	Dr. Elias Delali Aklaku – BioGas Engineering Ltd.	Not Funded – As two prizes were won by Dr. Aklaku, it was determined that his rainwater harvesting idea had greater potential to assist our beneficiaries.
Sanitation Technology – Household Latrine	3rd Prize - \$1,000	Disability VIP Latrine	Felix Kofi Gyau, Kumasi	Not Funded– Project provided pilot of alternative disability-friendly latrine (above).

4.2 Component 2: Small grant facility

The GWASH Project launched the Small Grants Facility in November 2011. In order to promote awareness about the initiative, a brochure was developed that provided a detailed guidance on the process. Likewise, a template was also designed and distributed in order to standardize submissions for funding.

A significant amount of marketing and outreach was undertaken to make rural stakeholders aware of the Small Grant Facility and encourage them to come up with coherent and innovative ideas for funding. In the past year, the Small Grants Facility awarded \$250,000 in funding to 37 proposed local WASH interventions. In total, throughout the project period, the Small Grants Facility received more than 70 applications. Out of these, 37 of these were approved and funded.

Selected applications were innovative and expanded GWASH's reach.

Some examples of completed activities supported through the Small Grants Facility include:

- 1) Borehole repair, maintenance and revitalization and training sessions for the WASH Committee in Jumbo, Nkwanta North and Volta Regions
- 2) School latrine and hand washing project, Adupri Primary and Junior High School, Western Region
- 3) Borehole repair initiatives
- 4) Rainwater harvesting and storage system, State School for the Deaf, Adjei Kojo, Ashaiman Municipality, Greater Accra Region
- 5) Clustering of 17 institutional latrine facilities in the Cape 3 Points area of Western Region, thanks to collaborations with Peace Corps Volunteers

Table 8: Final project results compared to project targets: Small grant component

PMP Indicator	Component 3	Total to date	Target	LOP %
8	Number of entities receiving awards/grants for WASH Sector innovations and improvements	37	6	616%
9	Amount of funding distributed via small grants awards	\$250,000	250,000	100%

4.3 Component 3: Capacity Building

Component 3 seeks to improve the capacity of local community agents and other stakeholders to mobilize community members to actively participate in the improvement and management of water and sanitation facilities, particularly related to hygiene promotion. Stakeholders such as LNGOs and Community Water and Sanitation Committees as well as Community Based Hygiene Promoters (CBHPs) were selected and trained to assist target communities in the promotion of healthy water, sanitation and hygiene practices, as well as maintaining and sustaining the local water infrastructure.

The project largely exceeded its target. As the project expanded in Year 3 and 4, we moved into new communities and districts which resulted in additional people trained beyond what was initially expected. The new communities and districts were targeted as part of the partnership with Peace Corps and Public Private Partnership (PPP) initiatives such as Coca Cola, Rotary International, Water Health, Safe Water Network, and Barry Callebaut. In addition, under the cost extension period GWASH engaged in the manual drilling activity and borehole repair activity which also resulted in additional people trained.

Table 9: Final project results compared to project targets (capacity building)

PMP Indicator	Component 3	Total to date	Target	LOP %
10	Number of people trained in effective communication, community profile analysis and civic engagement	2,565	1,439	178%
11	Number of local artisans trained in latrine facility construction	332	300	111%
12	Number of people trained in water and sanitation facility maintenance and management and have a facility management plan in place	2,176	1,372	158%

LNGO Capacity Building

11 LNGOs were trained in community entry and animation, community profiling, analyzing techniques, action plan development, participatory methodologies, and communication and presentation skills. These trainings enabled them to conduct community profile analyses, assist communities in developing action plans and educate communities on development, as well as water and sanitation related issues

In order to train LNGO implementing partners on effective use of a WASH training manual developed for the GWASH project (see Component 4 for details), the project organized a 5-day residential training for 11 LNGO Directors and 32 LNGO field



Picture 5 : LNGO and Ghana WASH project participants in training

staff. LNGO staff learned effective manual usage, sensitization on the dangers of fecal-oral contamination, gained exposure to the GWASH SHEP strategy, and learned usage of participatory tools for facilitating hygiene, sanitation and behavior change communication with children and communities.

To ensure effective CLTS adoption and implementation, 5 LNGOs in project districts without sanitation facility subsidies participated in a 5-day CLTS training program. The Ghana WASH Project adopted a CLTS approach in line with Ghanaian national policy to promote sanitation and hygiene promotion in the 4 latrine-subsidy free districts—Awutu Senya, East Akim, Gomoa East and Aowin Suaman.

Capacity Building for WatSan Committees and Community Based Hygiene Promoters (CBHPs)

Community-based WatSan committees were trained on the operation and maintenance of the water facilities such as the development of by-laws to govern the operation of water facilities, income generation, facility management. WatSan Committees developed strategies to manage the facilities, which included pay-as-you-fetch systems and household levies.

Under the guidance of GWASH field staff, LNGOs conducted trainings for WatSan Committees on facility management and maintenance, community animation, bookkeeping, accountability, teambuilding and health promotion and delivery of messages, action planning, behavior change promotion, gender issues in water and sanitation, handwashing, and monitoring and evaluating water and sanitation activities.

A training program was designed and implemented to equip Community Based Hygiene Promoters (CBHP) in the effective use of the hygiene facilitation tools/methods, defining the roles and responsibilities of the CBHP and also equipping them with exemplary facilitation skills.

Facility Management Plans were developed in each community for water and sanitation facilities. The plans includes sections such as basic community information, fundraising plans including fund mobilization management, and accountability, environmental management plans, and contact information for facility artisans and repair shops. Over 200 Facility Management Plans were signed over the life of the project.

Capacity Building for Schools

During the project, a total of 300 teachers and School Based Health Coordinators participated in SHEP trainings. The main topics covered included an overview of the GWASH Project, the National SHEP Strategy, SHEP activities by schools, causes and prevention of WASH-related diseases in the respective municipalities, operation and maintenance of the MAMA Toilet facility^[1], formation and training of School Health Clubs (SHCs), preparation and implementation of school based action plans, and roles of stakeholders.

Food vendor trainings were held in all regions. A total of 442 total participants, including food vendors from project communities and school-based SHEP coordinators participated in the trainings, which were facilitated by District Environmental Health Officers and Environmental Health Assistants from District and Municipal Water and Sanitation teams. Participants were trained in topics ranging from food hygiene and safety practices, to basic nutrition, healthy eating, and hand-washing techniques. EHAs stressed the need for food vendors to become certified to sell food by the District Environmental Health Unit, and the process for becoming certified.

Training of local artisans

The purpose of this activity was to select and train local artisans for the construction of household latrines in project communities. With a target of 200 artisans for the LOP, the project trained 332 local artisans (masons and carpenter) for the construction of the household latrines. The number increased because at a point it was realized that more artisans needed to be trained for the Project to be able to construct LOP targets within a short period of time. The trainings took place in twelve districts in the Central, Western and Greater Accra regions. These districts were Gomoa East, Gomoa West, Assin South and Agona East (Central), Juaboso, Bia, Bibiani and Aowin Suaman (Western), Ga West (Greater Accra) and Ho Municipal, Nkwanta North and Krachi East (Ho).

The artisans went through both theory and practical sessions during the trainings. They reviewed the theory of latrine siting, making of ring beam, casting of slabs, lining of latrine pits with cement blocks, sanitation systems, concrete/mortar mixes, etc. They also went through user and hygiene education as part of the theoretical sessions.

Also as part of the training, the artisans were taken through the step-by-step construction of various models: Mozambique, one seat KVIP, septic and VIP latrines. The project made a video on one of the local artisans training which took place in the East Akim District of the Eastern Region¹.



Picture 6 : Artisans learning to arrange iron rods at Jumbo during training

4.4 Component 4: Strategic behavior changes

The GWASH project sees strategic behavior change as the foundation for the project success. Thus, the project combined a variety of behavior change approaches which supported and promoted the development of good behaviors and practices in WASH infrastructure usage as well as the increased adoption of complementary hygiene behaviors that reduce waterborne diseases. This component cuts across all activities of the project and serves to ensure much-needed project sustainability for years to come.

4.4.1 Community Profiles

To promote efficient community entry and to assess communities' water and sanitation practices, attitudes, and needs, the Behavior Change team developed community profile analysis tools. The tools consisted of questionnaires to guide communities in transect walks, as well as interviews and focus group discussions with school and health groups, women's groups, and men's groups. The community profiles served as a basis to assess WASH related issues in each of the communities. The community profiles illustrated: i) the social, economic and cultural situations in the community, ii) the education level, iii) the water supply and sanitation situation, including behavior/practices with respect to water and sanitation and iv) the factors which influence the behaviors. Information collected was used to facilitate the design and implementation of water supply, sanitation and hygiene promotion activities at the community level and assisted in creating messages with inputs of community members.

¹ <https://www.youtube.com/watch?v=Twqzu0H1K08>

4.4.2 Innovative BCC interventions

SHEP clubs: As part of GWASH intervention, trainings were held for school based health coordinators (SBHCs) to review the roles and responsibilities of coordinators, proper hand washing, the national SHEP strategy and policy, and proper usage and maintenance of the new latrines. GWASH staff also worked with SHEP Coordinators to develop action plans for creating meaningful change in their schools. These action plans included establishing SHEP clubs to educate and motivate students to adopt positive hygiene behaviors. In addition, school food vendors participated in trainings to ensure students had access to food prepared, handled, and served under hygienic conditions.

Quiz Competitions/Dramas: SHEP club activities held for students aim to educate and empower students to practice positive WASH behaviors and promote positive WASH practices in their homes and communities, ensuring long-term benefits and sustainability, particularly of the new sanitation infrastructure. SHEP Clubs implemented activities in their action plans such as clean up exercises in schools and in communities on market days and the use of drama to deliver hygiene messages on the spread of waterborne diseases. School quiz competitions were also conducted to test the students' knowledge on WASH issues.

Essay contest: The Ghana WASH project, in collaboration with the Ghana Education Service and the SHEP, implemented a hand washing essay contest for schools in the peri-urban areas in the Greater Accra Region to reemphasize the importance of hand washing among the school community. 105 students participated in the contest. The essay contest generated a lot of discussions among school children and their teachers on the importance of hand washing and the proper way and critical times to wash hands to reinforce positive hygiene behaviors.

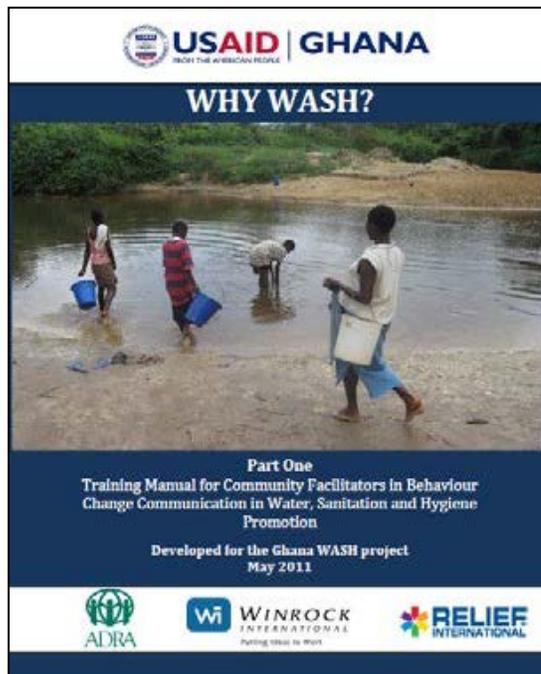
Video shows: Videos and pictures were used to strengthen the behavior change interventions, particularly in the peri-urban and larger rural communities where community mobilization proved challenging. Pictures and videos were taken from communities and shared back with the community. The pictures and videos targeted and depicted key sanitation and hygiene issues and practices in the community and prompted lively discussion and debate amongst community members. Community members were asked to identify good and bad practices seen in the video/photos that were found in their community. The video show helped the community members to identify their weaknesses and strengths towards achieving ODF status. The videos have served as a catalyst for communities to take action to improve sanitation and inculcate good hygiene practices in the communities.

4.4.3 BCC Tools Developed

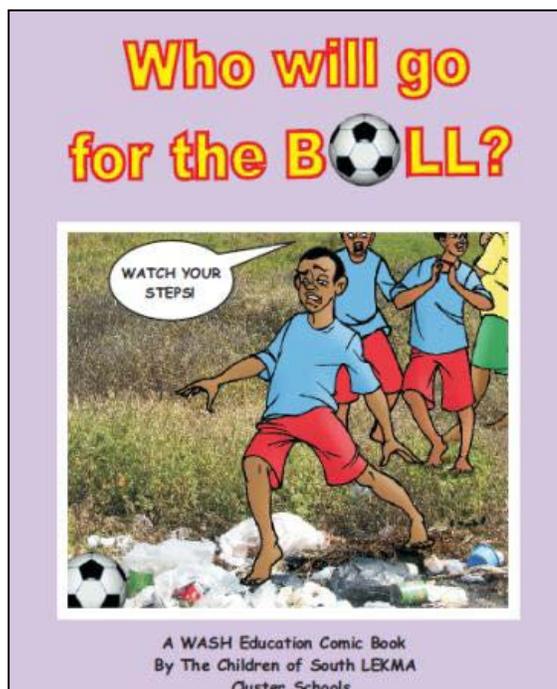
BCC Manuals: In order to provide LNGOs with the tools and skills needed to conduct BCC interventions in project communities, Winrock developed a comprehensive and participatory 2-part Behavior Change manual with background information on Behavior Change in the WASH sector as well as step by step training modules in areas such as community development and mobilization processes; establishment of community profiles, WatSan Committee formation, hygiene promotion and behavior change, and participatory learning techniques, which were used by LNGOs to facilitate sessions at the community level.

PHHE Toolkits: As part of BCC education strategies developed by the project, GWASH adapted participatory tools for health and hygiene promotion (PHHE tools) from CONIWAS to tailor them for specific community needs. Sets of tools in the form of large laminated cards depicting general water and sanitation behaviours were distributed to LNGOs and schools through an in-depth training that enhanced the knowledge and skills of participants towards effective delivery of behaviour change messages in target communities. Participants completed the workshop with an understanding of participatory training methodologies, enhanced facilitation skills, and the knowledge to properly use PHHE tools to facilitate discussions with community groups.

Comic Books: A WASH education comic book “Who Will Go for the Ball?” was developed in association with school children at LEKMA South Cluster of Schools with support from the WADA/Coca-Cola PPP to strengthen the BCC education in the targeted areas. The comic book emerged out of education workshops held with pupils at the school. Through the workshops, students learned



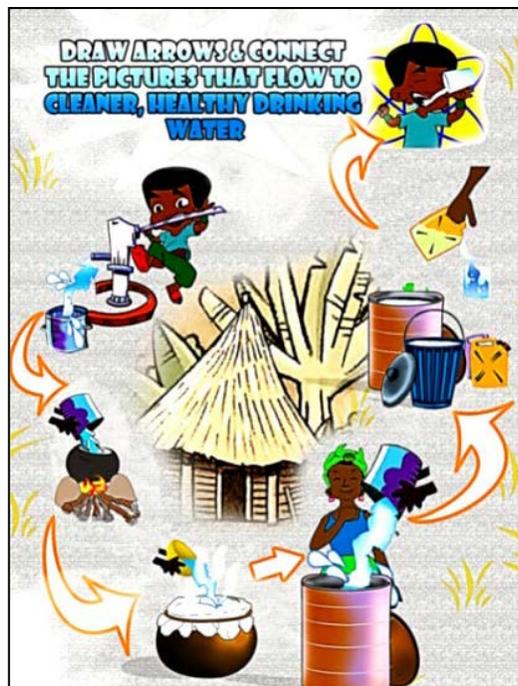
Picture 7 : Cover page of the BCC manual



Picture 8 : Comic book developed by the Gwash project

about proper toilet usage and hand washing. They then wrote their own stories, describing how they would use their new knowledge to address their water and sanitation challenges. Out of these stories, the project developed the animated, story-length comic book. The project used the comic books to share sanitation and hygiene messaging with the youth. 10,000 copies of the comic book were printed and distributed to schools across the 5 regions.

WASH Funtivity Book: As part of efforts to intensify and sustain behavior change and following how well the comic books were received and used, the project developed a WASH activity book entitled “My Health is My Wealth: A WASH Funtivity Book”. The book included educational and entertaining activities targeting students aged 6 to 12 years teaching lessons on water, sanitation and hygiene. The book was targeted at youth aged 6 to 12 years, and added another layer to the project’s WASH outreach. A total of 5000 copies were printed and distributed to all GWASH schools. As the students worked through the exciting puzzles, poems, songs and various activities in the book, they discovered hygiene messages and practices which were intended to trigger behavior change and reinforce positive WASH behaviors.



Picture 9 : Funtivity Book

Stickers: As part of efforts to intensify and sustain behavior change, GWASH developed stickers with behavior change messages. These were used to target CLTS communities as well as peri-urban communities where our community mobilization approach had proved to be a challenge. The messages focused on information on proper usage of latrines. The messages utilized pictures to facilitate easy understanding. The pictures depicted proper and improper user practices for latrines. 10,000 stickers were printed and distributed and put on institutional and household latrines to serve as constant reminder and emphasize good hygiene behavior in the GWASH communities and schools.



Picture 10 : TShirts and caps to promote positive hygiene behaviors among community members.

Tee shirts and caps with BCC messages: In line with our BCC strategy of disseminating behavior change messages on water, sanitation, and health, over 10,000 t-shirts and

caps with various behavior change messages were printed and distributed to school health clubs, WatSan committees and community based hygiene promoters. The messages on the t-shirts and caps served as a constant reminder to promote positive hygiene behaviors among community members.

4.4.4 Hybrid Community Led Total Sanitation (CLTS)

The Ghana WASH Project attempted to harness the awareness raising and demand creation techniques of Community Led Total Sanitation, while at the same time providing beneficiaries with quality household latrine option choices that are tailored to accommodate the modest incomes of the rural communities in which we work.

The Ghana WASH Project used demand creation techniques known as pre-triggering, triggering and post triggering which are essential to CLTS in order to raise awareness of the dangers of open defecation and create a call-to-action which leads to a community digging a number of pits and gathering their associated materials as part of the latrine building process with the aim to stop open defecation. The *pre-triggering* process describes the community entry and mobilization processes that take place before the triggering exercise in a community. *Triggering* is the process of taking a community through a participatory analysis of its sanitation situation using the CLTS tools leading to their realizing the negative effects of open defecation and the community committing itself to stopping the practice. *Post-triggering* is the follow up support activities that take place after a community goes through the triggering exercise leading to its attainment of the Open Defecation Free status.

The Ghana WASH Project conducted orientation for District Steering Teams and Environment Health Assistants in the GWASH CLTS districts to equip them with the necessary skills and knowledge to fully support GWASH with CLTS activities in the absence of the LNGOs. During the training, participants were taken through the concept and principles of CLTS, as well as the CLTS implementation process and implementation methods/tools. Participatory Learning Approaches (PLA) including team building were also discussed.

ODF verification and assessment

The ODF Certification process involves a number of steps including community self-assessment, district-level verification, and regional level declaration of ODF status. The GWASH project focused on working with communities to achieve community self-assessments.

The GWASH Project staff worked with communities that were triggered to conduct the self-assessment. The process involved the community representatives and the Environmental Health Assistants using the government-developed community self-assessment tool. The group

critically assesses each item in the tool and rates its attainment based on observation and evidence provided during the visit around the community. After the self-assessment exercise, a briefing was held with the community on the outcome of the exercise and their result discussed by the whole community. A total of 51 communities passed the assessment to obtain ODF basic level. The table below indicates the characteristics in the four ODF categories.

Table 10 Final project results compared to project targets (BCC)

PMP Indicator	Component 4	Total to date	Target	LOP %
13	Number of communities/schools that have adopted Open Defecation Free (ODF) behaviors	51	50	102%
14	Number of people trained in behavior change and hygiene messages as a result of USG assistance	93,831	78,387	119%
15	Number of people (students) reached through BCC and hygiene messages as a result of USG assistance	21,153	10,900	194%

4.5 Component 5: Public Private Partnerships

4.5.1 Support and technical assistance to existing Global Development Alliances (GDA)

RI fulfilled its commitments for the Coca-Cola WADA initiative by the close of FY2013. Through the Coca-Cola WADA partnership, two WaterHealth Centers were constructed, funded by USAID and the Coca-Cola Africa Foundation through GETF. Additionally, rainwater harvesting systems and storage were provided to the LEKMA North and South Cluster of Schools in Greater Accra; 231 household latrines were constructed; 12 individuals were trained on facility maintenance and some of the same latrine artisans that trained through GWASH efforts supported latrine construction in WADA communities; five institutional latrines at schools in Greater Accra and Volta Regions were constructed; five hand washing stations were installed in schools. The project provided complementary BCC activities in all communities in which we worked. GWASH also lead community mobilization, monitoring and evaluation efforts across all project activities.

Under this partnership also, GWASH expanded on the idea of the comic book during the fourth year of operations and developed a 32 page activity book to be used with school children, teaches them more about proper hygiene and sanitation in the school and home settings.

4.5.2 Development of new Public Private Partnerships (PPPs)

PMP Indicator	Component 4	Total to date	Target	LOP %
16	Number of Public Private Partnerships (PPPs) established	6	6	100%
17	Amount of resources (funds) leveraged through PPPs	1,700,702	1,000,000	170%

The project secured and implemented partnerships with both local and international private sector partners, as well as implemented activities for PPP agreements already in place. In terms of new Public-Private Partnerships, GWASH added onto existing PPP agreements. The 6 partners that have signed agreements which were executed with GWASH during the project period were:

- Safe Water Network/Hilton Foundation
- Water Health Ghana
- PricewaterhouseCoopers Ghana Limited
- Barry Callebaut
- Ernst & Young
- Water NGO

By the close of project, the PPPs contributed US\$ 1,700,702 in total,

Safe Water Network / Hilton Foundation

SWN finished the construction of two surface water kiosks in Aveme, South Dayi District, in Volta Region and Akateng, Upper Manya-Krobo District, in Eastern Region. GWASH provided support on all monitoring and evaluation efforts and throughout mobilization, capacity building and behavior change communication efforts in the communities. This partnership represented a synergy in the water sector, whereby a private sector entity and a publicly funded initiative worked together to increase the effectiveness of a joint project. Indeed, this project represents the embodiment of the objectives of USAID's Global Development Alliance initiatives.

On World Water Day, in March, 2013, the GWASH Project, together with Safe Water Network, commissioned a water treatment center utilizing SWN's open-source technology (modular slow sand filtration system) at Aveme, in Volta Region. The facility, comprised of a main kiosk and two vantage points, was provided to the Aveme community thanks to support from Safe Water Network's funders, the Conrad H. Hilton Foundation and CSR Development. The partnership also supported the construction, completion and handing over of two additional full-scale facilities during the project period, in Akateng and Gbefi communities, both in Eastern Region.

Water in Africa Through Everyday Responsiveness (WATER NGO)

The Ghana WASH Project signed a contract with the WATER NGO in June 2011 in the amount of \$29,000 USD to provide three boreholes and one water storage facility in Buruli Ulcer endemic areas of Ga West. WATER NGO received funding from Sahara Oil to provide the water facilities and the NGO sought out a partnership with the Ghana WASH Project in order to collaborate on the initiative. As of the reporting period, three boreholes have been successfully dug and the 40,000 liter water storage facility has been installed at the Amasaman Buruli Ward in Ga West.

The goal of the partnership was to provide potable water to areas where Buruli ulcer has been reported and to enable WATER NGO to establish a surveillance program so that they can better determine the causes of this mysterious ailment. The support provided by WATER NGO enabled us to provide hardware facilities and to provide basic community entry support. The WATER NGO is providing complementary software support for this initiative.

Water Health Ghana



Picture 11 : Water Health Treatment plan - Pokuasi, Geater Accra Region

In September 2011, the Ghana WASH Project signed an MOU with Water Health Ghana to provide behavior change communication, promotion and monitoring and evaluation support to four communities with surface water treatment kiosks that have been provided outside the scope of the WADA GDA. These four communities are Afuaman (Ga West), Adeiso (West Akim), Pakro (Akwapim South) and Zenu-Ashiaman (Ashiaman). Water Health has four surface water treatment kiosks in these communities thanks to support from Diageo and Coca-Cola, as well as from their own donor sources, however, the project was looking for additional promotional and awareness raising support to increase demand for the water from their facilities. Likewise, they have little monitoring and evaluation capacity in house, and as such, the Ghana WASH Project provided its support in that regard as well.

PricewaterhouseCoopers Ghana Limited

The project established a partnership with the advisory firm Pricewater House Coopers Ghana Limited to provide boreholes and behavior change support to Akonfudi and Breku schools, located in Assin North District in Central Region. In each school, GWASH's Behavior Change Agent in the Central Region lead SHEP club trainings. The trainings included participants from a total of six schools: primary and junior high schools in Breku, Akunfidi and the district assembly primary school. Participants included six SHEP teachers (one from each school), as well as 120 pupils from the different SHEP clubs, marking an exciting opportunity to expand project reach outside of targeted community schools. The SHEP trainings took place in November 2012, and the boreholes were commissioned at the two schools in December 2012.

Barry Callebaut

By the close of the project, RI had concluded very solid partnership with the cocoa and chocolate supplier firm Barry Callebaut to provide sanitation, water improvements and behavior change training in two schools, two 4-seater KVIPs at Nana Korkor D/A Junior High School in Kukurantumi in East Akim Eastern Region, and two 4-seater KVIPs at Amasie West Junior High School, in Odaho, in Ashanti Region. The schools in Odaho will also receive an additional rainwater harvesting and storage facility. At both schools, behavior change support activities were undertaken in the form of SHEP and food vendor trainings.

Ernst & Young

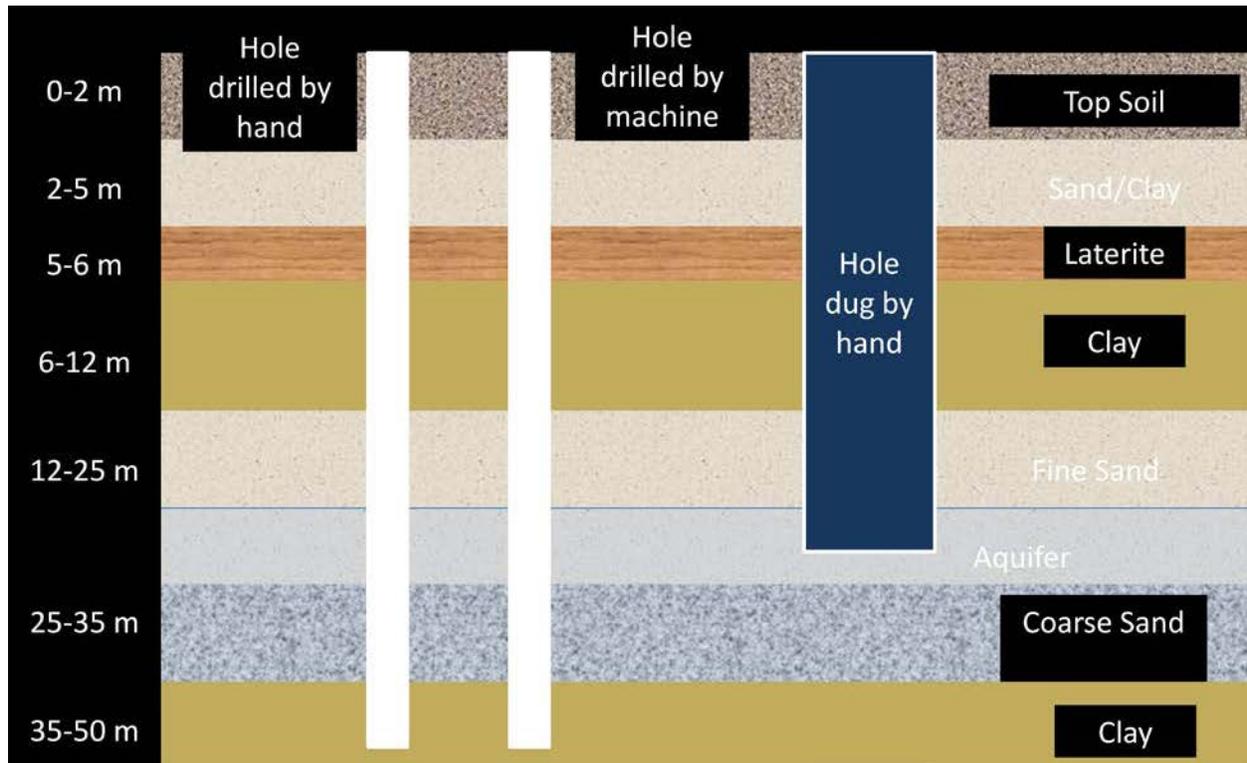
During the project period, GWASH also received modest funding from Ernst & Young to construct 20 hand washing stations at area schools. The hand washing stations will served as prizes for some of the winning schools of the Hand washing Essay Contest which were awarded November 2013.

5 INNOVATIVE ACTIVITIES

The GWASH project started to implement two innovative activities in FY2013: manual drilling and borehole repair.

Through these two innovative activities, 70 boreholes were repaired and 60 manual boreholes were drilled, reaching an additional 39,000 beneficiaries with sustainable potable water solutions. Additionally, in the case of the manually drilling method, the project passed on new technologies to southern Ghanaian water drillers so that they are able to promote these approaches in the private sector in the years to come.

Manual Drilling in Assin North and Assin South, Central Region –



The GWASH Project originally had an objective of providing 60 hand dug wells to small, rural communities that wouldn't normally warrant a machine drilled borehole. After experiencing a host of technical problems with hand dug wells in the second year of the project, GWASH sought to reduce the number of hand dug wells by 29 and increase the number of boreholes provided by 15 to keep the number of people reached with potable water solutions equivalent.

That said, drilling more boreholes does not necessarily benefit those small communities that need access to potable water, but do not have the population figures to merit consideration for a machine drilled borehole. As such, Relief International's Enterprise Works division has a wealth of experience in teaching gangs the techniques of manually drilling boreholes, though less experience in Ghana.

As shown in the image above, manual drilling techniques can permit a trained gang to reach equivalent depths as a machine drilled borehole, and can far exceed the depth reached via the hand dug well digging process. The Ghana WASH Project trained two teams and provided contracts to drill a total of 40 boreholes by hand in Assin North and South during the fourth year of the project. By doing this, we expect to reach an additional 6,000 beneficiaries with potable water solutions and, perhaps more importantly, pass new technologies onto southern

Ghanaian water drillers so that they are able to promote these approaches in the private sector in the years to come.

Borehole Repair and Maintenance in Assin North and Assin South, Central Region – At the same time, in the same districts, the GWASH Project plans to launch an outreach campaign to work with communities to identify, repair and leave behind functional Watsan committees so that there are far fewer boreholes broken down in the pilot communities.

The origin of this idea came about after the GWASH Project conducted a successful pump mechanics training in Western Region in 2012. During the training, 12 boreholes were repaired. While some only required minor repairs, others had more serious problems and needed extensive support. However, when analysed, we discovered that communities were going months without access to their borehole because no one could repair the pump or no committee was functional to the point where they had raised money to make any repairs. While not shocking for anyone who works in the WASH sector, what was unsettling was the fact that no one in the sector was working towards any concrete solutions to pump breakdowns, as though the incentives for the projects ended at the installation of a pump, rather than the proper maintenance of a pump for a certain duration of time.

We have selected the same districts as the manual drilling activity purely for logistical purposes, to promote economies of scale for the Water Coordinator and his team who will head up both of these innovative initiatives.

As mentioned above, the project provided both the necessary software to enable the communities to raise levies for the upkeep of their borehole, but will also provide the initial repair to get the pump back into good working order.

6 VISIBILITY AND COMMUNICATION

6.1 Website

The Ghana Wash project developed a Website to present its activities, approaches, and to share all the relevant documents that could be useful to other actors in the the WASH sector:

<http://ghanawashproject.org/>

6.2 Success stories and lessons learned

The GWASH Project developed eight success stories documents in the course of project implementation and shared them with USAID:

- 1) Partnering with Peace Corps Ghana: Working Together Toward sustainable impacts

- 2) A new face of Leadership for the Ofankor Market Association: support water sustainability
- 3) From Water to Electrification, WatSan Committees Promote Development
- 4) USAID and the Coca-Cola Africa Foundation bring clean drinking water to households in Asukawkaw
- 5) Improving Community Water Access & Management, One Borehole at a Time: Positive Impacts in Ghana's Central Region
- 6) Achieving Development through Local NGO Partnerships
- 7) Improving Sanitation, Building Skills in Household Latrine Construction
- 8) Improving Youth Hygiene, with Comic Books for Students, by Students

The project also produced five lessons learned documents:

- 1) Lessons Learned: Hybrid CLTS Approach to Improving Sanitation
- 2) Lessons Learned from Local NGO Partnership Experiences
- 3) Lessons Learned: Small Grants Facility
- 4) Lessons Learned from Experiences in Project Partnerships
- 5) Lessons Learned: Manual Drilling and Borehole Repairs Initiatives

All the success the documents are presented in annex.

6.3 Audio-video documents

The GWASH Project had coverage from BBC Afrique on its work at the community level to improve water and sanitation. The five-minute radio emission (in French with English translation) can be found on the GWASH website: <http://ghanawashproject.org/gwash-on-bbc-afrique-radio/>

The project also produced some videos of the project's impacts and approaches. The videos can be viewed on youtube:

<https://www.youtube.com/watch?v=ro09dB7zjQw> : The Ghana WASH Project: An Introduction

<https://www.youtube.com/watch?v=V4KhJJReOoU> : Ghana WASH Project: In Photos

<https://www.youtube.com/watch?v=Twqzu0H1K08> : Training Local Artisans, Building Latrines, Improving Sanitation

6.4 Conference presentation:

Relief International and EnterpriseWorks staff Jon Naugle, Dominic Osei and consultant Bouboucar Ahmed's work on manual drilling initiatives were presented at the February 2013 WEDC Conference in Nakuru, Kenya. The document can be found on the Ghana Wash website

http://ghanawashproject.org/wp-content/uploads/2012/07/36_Conference_Paper_Manual-Drilling_Ghana_Naugle-1.pdf

The Ghana Wash project presented its mapping strategy during the Ghana Environmental Forum held on . The presentation can be found on <http://ghanawashproject.org/news-media/other-media/resources/>

7 MONITORING AND EVALUATION

7.1 Management Information System

The Ghana WASH Project monitoring and evaluation system was organized around three operational MIS which tracked water infrastructure, sanitation infrastructure and behavior change communication activities at the community level. Each MIS sheet has tabs that track the different types of infrastructure or initiative being spearheaded by the project. The various steps and sub-steps needed to complete a particular activity have been defined and labeled as column headings and as drop down menus, respectively. GPS coordinates have also been uploaded into the MIS to facilitate the eventual mapping of the facilities by district and region.

The project organized and integrated the project's photo bank so that the most recent photos are linked to the community information. This increased transparency and routine follow up and enabled all technical team members to have access to the same data for report writing and for liaising with contractors and partners.

7.2 Geotracking

To demonstrate accountability and transparency in project implementation, the Ghana WASH Project initiated a geo-tracking activity with the objective of geo-referencing project deliverables (water and sanitation infrastructure). The GWASH Project therefore procured seven GPS enabled Samsung cameras to aid data collection. Prior to deploring the pilot GIS data collection exercise, the USAID/Ghana Mission M&E/GIS Specialist, Edwin Afari, built the capacity of Ghana WASH Project staff to collect interim data for the pilot. The pilot GIS data collection covered water and sanitation infrastructure (boreholes, rainwater harvest systems and institutional latrines) in 4 districts (Assin North, Assin South, Gomoa West and Gomoa East) of Central Region. Initial maps have been created by the Mission GIS Specialist and have been submitted to the Ghana WASH Project for use. Data collection is ongoing in other regions and districts with the ultimate objective of mapping all Ghana WASH Project infrastructure sites.

Thus, the following maps are available:

Facility Map –

<https://www.google.com/fusiontables/DataSource?snapid=S43866787Vi>

CLTS Community Map –

<https://www.google.com/fusiontables/DataSource?snapid=S442573bXxT>

8 Lessons learned

In addition, to the lessons learned document produced, we would like to highlight few lessons learned:

Protective Gear For Cleaning Institutional Latrine Facilities – One key aspect of maintaining the institutional KVIPs in the schools is keeping the facilities clean. A solution is that school children in the beneficiary schools are tasked by the schools to clean the facilities; however, these students need to be provided with protective gear they are not exposed to health hazards when cleaning the facilities and not all the schools have a provision to ensure this happens. Rural projects that provide institutional facilities to schools need to discuss and include a strategy to ensure protective gear is provided and available to the students who clean the facilities. Since most rural schools do not have access to funds to provide protective gear they should be encouraged to explore creative ways to ensure student safety such as making gloves out of plastic bags,

Consortia Management – Each partner brings expertise in certain areas to the partnership. We are grateful for the expertise brought into the Ghana WASH Project by the three international partners, not to mention the eleven LNGO partners. That said, the lack of a unified administrative structure can present challenges in managing equity issues on areas such as employee performance, per diem harmonization, leave policies and salaries and benefits. We have done what we can, via the realigned budget, to address some of these critical issues so as to increase the level of harmony within the project, however, there remain outstanding managerial problems that require additional coordination between the partners so that we can all be pointing in the same direction in Year 3 as we catch up on all of our activities going forward. The willingness is there, particularly at the project management level, and frequent communication between the COP (Chief Of Party) and the decision makers at all three partners has helped resolve a vast number of issues, however, there remain some additional internal challenges which must be resolved in order to improve overall performance.

Using Community Self-Assessments to Motivate Sanitation Improvements and ODF – Significant environmental improvements have been seen in communities in the Volta Region. According to EDSAM, the LNGO based in this region, this can be attributed to the self-assessment that was conducted a month ago as it helped both the EDSAM staff and communities to better understand the assessment/verification process. It also exposed their strengths and weaknesses as they relate to the indicators of the ODF status. Moving forward, communities should be encouraged and supported to conduct the self-assessments regularly, as these assessments motivate communities to improve their sanitation and move up the ladder in the ODF continuum.

Construction Contract Management – Due to the slow start of the GWASH Project, both ADRA and RI used the strategy of splitting lots into multiple contracts under the theory that having more crews working on projects in different regions of the country would lead to efficiencies of implementation. While one could argue that in a few occasions, this might have been true, the added complexity of managing contracting relationships on 36 pending contracts has led to extraordinary challenges in completing the pending works. Likewise, when one splits a contract into five or more lots (as the project did on three separate occasions), one is effectively rewarding the fifth best bid with a contract (or seventh best, in one situation). The problems we have had with a few of our contractors could have possibly been avoided had we provided more work to fewer, more reliable contractors. Likewise, with the size of the contract being more interesting for the contractor, it is also likely that GWASH would become more interesting and important to that contract and, as such, it would be in their interest to do a good job in the hopes of winning another contract. This revised approach has been used in Year 3 of GWASH Project and there is much evidence to suggest that we had greater success in getting our hardware deliverables completed on time and under budget using this approach.

BCC and capacity building activities: the Ghana Wash project drew the following lessons from implementing BCC and capacity building activities:

- In order to provide maximum BCC and CLTS interventions to any given community, there is a need to be familiar with the community profile before triggering the community.
- The “walk of shame,” or walking through the community with community members as they do their own assessment of their community’s health and hygiene situation, is a very important tool for triggering if well used especially when Opinion Leaders are part of the team on the walk.
- Children are also effective agents for information gathering, as they will always tell the truth. Empowering children to deliver key behavior change messages represented an

effective strategy towards improving hygiene and sanitation conditions not only on the school compound, but also at the household level.

- Assemblymen/women in peri-urban communities play a major role and are highly respected in the community. It is therefore prudent to utilize this asset in mobilizing community members for project activities.
- The GWASH strategy centered on LNGOs based in the districts to facilitate DWST support for the implementation of our activities in the communities. The partnership between the DWST and LNGO is key to effective project implementation and sustainability. However, if LNGOs don't have support from the DWSTs it serves as more of an impediment rather than an advantage. DWST members should be brought on board from the beginning with clearly defined roles and responsibilities so they take ownership and provide support to communities to sustain the facilities.
- Fund generation by WatSan committees for operation and maintenance of facilities is key in ensuring the sustainability of those facilities. The GWASH strategy for fund generation was focused on two systems: a pay as you fetch or a community household levy system. Some WatSan Committees developed innovative ways of generating revenue by having a communal farm which generated funds to maintain the water facilities. In future, projects should encourage WatSan committees think creatively and to come up with different strategies of fund generation.
- An effective GWASH strategy adopted later in the project cycle was to introduce latrines 2-3 months after triggering so the latrine subsidy facilitated the attainment of ODF basic. In such communities, the people already started some efforts towards stopping OD on their own and saw the importance of latrines prior to the introduction of the latrine subsidy. It led to speedy completion of the latrines and high usage. However, where the subsidy was introduced during or immediately after triggering, attainment of ODF is difficult in addition to completion and usage of the latrines.

9 FINANCIAL REPORT

The financial report will be submitted under separate cover.

ANNEX 1: GHANA WASH PROJECT PMP - DETERMINATION OF ANNUAL INDICATOR TARGETS

Indicator #	Name of Indicator	Method of Calculation	Target Inputs	FY2011	FY2012	FY2013	FY2014	LOP completed	LOP objectives	%
1	Number of people in target areas with access to improved water supply as a result of USG assistance (M)	Count of people in target areas that gained access to any one of the water sources described as improved and facilitated by RI	Boreholes (BH)	5,400 (18 BH)	15,600 (52 BH)	2,700(9 BH)	-	23,700	22,500	281%
			Manual Boreholes (MBH)			12,000 (40 MBH)	6,000 (20 MBH)	18,000		
			Repaired Boreholes (RBH)			12,900 (43 RBH)	8,700 (29 RBH)	21,600		
			Hand dug wells (HDW)	1,650 (11 HDW)	3,450 (23 HDW)	600 (4 HDW)	-	5,700	4,800	119%
			Small town systems (STT)	-	2,500 (1 STS)	2,500 (1 STS)	-	5,000	5,000	100%
			Surface Water Kiosks (SWK)	-	31,500 (9 SWK)	7,000 (2 SWK)	-	38,500	28,000	138%
			Limited Mechanisation Schemes	-	-	-	-	-	-	N/A
			Annual Target (sum)	7,050	53,050	37,700	14,700	112,500	60,300	187%
2	Number of people in target areas with access to improved sanitation facilities as a result of USG assistance (M)	Count of people who gained access to any one of the improved sanitation facilities facilitated by RI.	Household latrines	1,496 (187 HHL)	12,504 (1,563 HHL)	22,784 (2,848 HHL)	7,056 (927 HHL)	43,840	37,440	117%
			2-seater institutional latrines	-	-	-	-	-	120	0%
			4-seater institutional latrines	3,840 (16 KVIP)	14,160 (59 KVIP)	1,680 (7 KVIP)	-	19,680	18,000	109%
			6-seater institutional latrines	360 (1 KVIP)	11,880 (33 KVIP)	2,880 (8 KVIP)	-	15,120	11,880	127%
			8-seater institutional latrines	-	-	1,440 (3 KVIP)	-	1,440	-	N/A
			12-seater institutional WC / Aquapriv	-	-	1,440 (2 units)	-	1,440	720	200%
			Annual Target (sum)	5,696	38,544	30,224	7,056	81,520	68,160	120%
			3	Number of improved water supply facilities constructed and functioning (M)	Count of all improved water facilities constructed by Ghana WASH project.	Boreholes	18	52	9	79
Manual Boreholes						40	20	60		
Repaired Boreholes						43	29	72		
Hand dug wells	11	23				4	-	38	33	115%
Small town systems	0	1				1	-	2	2	100%
Surface Water Treatment Kiosks	0	9				2	-	11	8	138%
Annual Target (sum)	29	85				99	49	262	118	222%
4	Number of liters of rainwater storage capacity provided for hygienic use (M)	Sum of storage capacity of all water systems established by the Ghana WASH project.				5,000 l Rainwater Harvest	150,000	-	-	-
			40,000 l Storage Facility (Potable)	40,000	-	-	-	40,000	40,000	100%
			150,000 l Rainwater Harvest	-	150,000	-	-	150,000	150,000	100%
			120,000 l Rainwater Harvest	-	-	120,000	-	120,000	-	0%
			90,000 l Rainwater Harvest	-	-	90,000	-	90,000	-	0%
			1,400 l RWH with l-KVIPs	23,800	130,200	26,600	-	180,600	154,000	117%
			Annual Target (sum)	213,800	280,200	236,600	730,600	494,000	148%	
			5	5. Number of improved household latrines constructed and functioning (M)	Sum of improved household latrines constructed and functioning in collaboration with beneficiaries	Household latrines	187	1,563	2,848	927
Annual Target (sum)	187	1,563				2,848	927	5,525	4,680	118%
6	6. Number of improved institutional level latrines constructed and functioning	Sum of improved institutional level latrines constructed and functioning	2-seater institutional latrines	0	0	0	0	-	1	0%
			4-seater institutional latrines	16	59	7	0	82	75	109%
			6-seater institutional latrines	1	33	8	0	42	33	127%
			8-seater institutional latrines	0	0	3	0	3	0	N/A
			12-seater institutional WC / Aquapriv	0	0	2	0	2	1	200%
			Annual Target (sum)	17	92	20	0	129	110	117%
10	Number of people trained in effective communication, community profile analysis, and civic engagement	Count of all people who have attended fully or at least 80% of the complete module under this category of training.	Watsan / LNGO / CBHP	182	1,135	917	331	2,565	1,439	178%
			Annual Target (sum)	182	1,217	917	331	2,565	1,439	178%
11	11. Number of local artisans trained in latrine facility construction	Count of all people who have attended fully or at least 80% of the complete module under this category of training.	Latrine Artisans	153	147	30	2	332	300	111%
			Annual Target (sum)	153	147	30	2	332	300	111%
12	12. Number of people trained in water and sanitation facility maintenance and management and have a facility management plan in place	Count of all people who have attended at least 80% of the complete module under this category of training.	People Trained	558	640	647	331	2,176	1,372	159%
			Annual Target (sum)	558	640	647	331	2,176	1,372	159%
13	Number of CLTS communities / schools which have adopted Open Defecation Free (ODF) behaviors	This is the number of communities that have been declared ready for "ODF Basic" certification by District Authorities as per the 2013 ODF Protocol.	Communities Reached		9	17	25	51	50	102%
			Annual Target (sum)		9	17	25	51	50	102%

14	14. Number of people trained in behaviour change and hygiene messages as a result of USG assistance (M).	This is calculated by counting all individuals (adults) who have listened to a message fully from beginning to end.	People Reached	550	21,541	67,276	4,464	93,831	78,387	120%
			Annual Target (sum)	550	21,541	67,276	4,464	93,831	78,387	120%
15	15. Number of people (students) reached with BCC and hygiene messages as a result of USG funding	This is calculated by counting all individuals (students) who have listened to a message fully from beginning to end.	People Reached	0	12,659	8,290	204	21,153	10,900	194%
			Annual Target (sum)	0	12,659	8,290	204	21,153	10,900	194%
16	16. Number of Public Private Partnerships (PPPs) established (M)	This is calculated by counting the number of partnerships the GWASH Project have with private sector entities.	Partnerships Engaged	3	1	2		6	6	100%
			Annual Target (sum)	3	1	2		6	6	100%
17	17. Amount of resources (funds) leveraged through PPPs annually.	This is calculated by calculating the cost share of all private sector partners (exclusive of Rotary International and Coca-Cola) contributed to joint initiatives	Amount Leveraged	\$ 789,000	\$ 782,798	\$ 128,904		1,700,702	1,000,000	170%
			Annual Target (sum)	789,000	782,798	128,904		1,700,702	1,000,000	170%