Improved Water, Sanitation and Hygiene (IWASH) Program
USAID Cooperative Agreement No. 669-A-00-10-00087-00

IWASH ANNUAL REPORT

October 1, 2011 – September 30, 2012

Submitted to:
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Name of Program:	Improved Water, Sanitation and Hygiene (IWASH) Program
Regions:	Bong, Lofa, Montserrado, and Nimba
Dates of program:	February 25, 2010 – February 23, 2015
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LIST OF ABBREVIATIONS AND ACRONYMS

ACF	Action Contre la Faim
ADRA	Adventist Development and Relief Agency
BCC	Behavior Change Communication
CDC	Center for Disease Control and Prevention
CHF	Cooperative Housing Foundation
CHT	County Health Team
CIO	County Impact Officer
CLTS	Community-Led Total Sanitation
CMEC	Community Mobilization & Empowerment Coordinator
CSC	County Steering Committee
CWC	Community WASH Committee
DALY	Disability-Adjusted Life Year
DQA	Data Quality Assessment
EHT	Environmental Health Technician
GHI	Global Health Initiative
GHWD	Global Hand Washing Day
GOL	Government of Liberia
HPU	Health Promotion Division
IPC	Interpersonal Communication
IR	Intended Result
KAP	Knowledge Attitudes and Practices
Libra	Libra Sanitation, Inc.
LISGIS	Liberia Institute for Statistics and Geo-information Services
LMWP	Liberia Municipal Water Project
L-MEP	Liberia Monitoring and Evaluation Program
MDG	Millennium Development Goals
MIS	Management Information System
MOHSW	Ministry of Health and Social Welfare
MOE	Ministry of Education
MPW	Ministry of Public Works
MLM&E	Ministry of Lands Mines and Energy
M&E	Monitoring & Evaluation
NCU	National Coordination Unit
NWSHPC	National Water, Sanitation, and Hygiene Promotion Committee
ODF	Open Defecation-Free
OIC	Opportunities Industrialization Centers International
PE	Peer Educator
PMP	Performance Monitoring Plan
POU	Point-of-Use
PRS	Poverty Reduction Strategy
PSI	Population Services International
PTA	Parent Teachers Association
RBHS	Rebuilding Basic Health Services
R&E	Reporters & Editors
SWIP	Small WASH Infrastructure Projects
SOP	Standard Operating Procedures
TRaC	Tracking Results Continuously
UNICEF	United Nations Children Fund
USAID	United States Agency for International Development
USG	United States Government
WASH	Water Sanitation and Hygiene
WG	WaterGuard©
WSSC	Water Supply and Sanitation Commission

1 EXECUTIVE SUMMARY

IWASH has seen a transformation during this reporting period. Past performance was stifled by various challenges, but the dedication of CHF International, PSI and USAID have edged the program back onto a promising course. With a renewed focus on championing behavior change, IWASH has emerged as a strong force in Liberia's WASH sector.

This year ushered in a growing momentum around measurable improvements in water supply, sanitation and hygiene as well as the enabling environment through stronger leadership and partners, improved implementation strategies, streamlined procedures and a solid grip on baseline data. Highlights include the establishment of seventeen regional sales points for WaterGuard (WG), relatively high success rates in motivating communities to become open defecation-free (ODF) through Community-Led Total Sanitation (CLTS), and the construction of a publicly-owned, privately-managed latrine in Monrovia. The CLTS National Coordination Unit is gaining steam, and government actors are becoming more aware of WASH policies, partly due to the IWASH capacity development workshop in which relevant policy documents were distributed and interpreted at county and district levels. A solid Monitoring & Evaluation system has been put into place and several key documents have been published. The full list of highlights from this reporting period can be found in the next section.

To date, as a result of IWASH, 46,008 people have access to an improved drinking water source, 4,360 of which are gaining first time access, and 19,768 people have access to an improved sanitation facility.

The IWASH team is figuring out what works and what doesn't, an important piece of any such program as outlined in USAID/Forward. We don't pretend to know all the answers on how to deliver an improved WASH system in West Africa – no one does – but we are working hard every day to deliver the best results possible and to share the lessons we've learned along the way. We are committed to bringing Liberia closer to achieving the Millennium Development Goals (MDGs) by halving the proportion of people without sustainable access to safe drinking water and basic sanitation.

As IWASH continues in its third year of implementation, the team is confident in its ability to sustain the momentum in bringing positive change to Liberia's WASH sector. Challenges and constraints remain - some communities seem to be stuck in their expectation for subsidies, government continues to be under-resourced and the roads do not seem to be improving – but IWASH remains adaptable to the conditions of the country.

As we move forward, the team will continue its focus on behavior change through key projects and initiatives. The next reporting period should see increased sales of WG and a higher success rate in bringing triggered communities through the CLTS process to ODF achievement. It will bring a strengthened institutional setting for the sector as IWASH gradually turns over responsibilities to the Government of Liberia. Finally, IWASH will work towards pulling all sanitation products under one marketing strategy, and the completion of the second urban latrine pilot project.

2 HIGHLIGHTS

IWASH works with communities, government ministries at the national, county, and district levels, and international and local partners to achieve program targets and results. The following is a snapshot of key program highlights from this reporting period. A full list of projects can be found in Appendix 12.1.

WaterGuard (WG) Point-of-Use Water Treatment Project

- 78,808 units of WG sold and distributed
- 70, 927,200 liters of water treated with WG
- 1,237 DALYs averted through WG
- 17 regional wholesale points created
- 17 regional wholesale points branded
- 51 Retail sales points created

Small WASH Infrastructure Projects

- 11 latrines completed
- 21 wells completed
- 1 publicly-owned, privately-managed latrine in Monrovia completed

Community-Led Total Sanitation Project

- 47 triggered communities
- 26 open defecation-free communities
- 247 latrines constructed
- 161 hand wash devices installed
- 639 dish racks constructed
- 744 clothes lines utilized
- 102 garbage pits excavated and in use

Behavior Change Communication Project

- 1,902 households visited in Bong, Nimba, and Lofa counties
- 299 Health Talks conducted
- 31,152 people reached, including 4,045 caregivers of children under five
- 36,861 school-aged children reached by the 146 active Peer Educators
- Radio spots, dramas and talk shows produced based on key messages from DELTA workshop
- 3,480 airings of radio jingles
- 65 airings of radio dramas
- 7 talk shows aired on water treatment and latrine use
- 42 airings of cholera emergency jingles on national radio

Capacity Development

- Greatly contributed to President Ellen Johnson-Sirleaf signing the WASH Compact in January 2012
- Trained staff from Government of Liberia (GOL), WASH consortium, and WASH Reporters and Editors (R&E) Network to use tools for qualitative gap survey
- Invited staff from GOL, WASH Consortium and WASH R & E Network to participate in the DELTA marketing planning workshop, training them on how to design a results-based marketing plan
- 4 WASH special events celebrated: WASH Market Day, Global Hand Washing Day (GHWD), World Toilet Day, and World Water Day
- 1 radio jingle produced for Ministry of Health & Social Welfare (MOHSW) for the 2011 GHWD
- Radio talk show produced for 2012 GHWD for Bong, Nimba, and Lofa counties
- Support given to MOHSW and Ministry of Education for the national GHWD celebration
- 1,149 cartons of WG provided to MOHSW for measles vaccination campaign
- Provided support to the Health Promotion subcommittee of the Cholera National Task Force
- Provided support to the WASH Market Day Fair Committee

Cross-Cutting Activities

- Conducted a qualitative gap study in realigned project counties: Bong, Lofa, and Nimba
- Developed a marketing plan for the software component of IWASH
- Produced radio spots and dramas
- Pre-tested newly-developed radio spots and dramas in the IWASH counties
- Designed and produced a WG brand brochure

3 PROGRAM BACKGROUND

CHF began implementing the five-year, USAID-funded IWASH program, which facilitates accelerated achievement of the Millennium Development Goals (MDGs) related to water and sanitation, in February 2010. One year later, USAID asked CHF to realign the IWASH program by narrowing its geographic focus and devoting greater effort and resources to improving the enabling environment at multiple levels of government; the realignment embraces the tenets of both the USAID/Forward approach and the Global Health Initiative (GHI) strategy, and allows for greater program focus and impact.

3.1 GOAL

The revised IWASH program goal is *to make measurable improvements in water supply, sanitation and hygiene (WASH), as well as in the enabling environment for WASH, in target areas within the three counties of Bong, Lofa and Nimba, and selected communities in greater Monrovia*.

3.2 INTENDED RESULTS

The Intended Results (IR), or objectives, of the IWASH program are:

IR 1: Increased access to water supply, sanitation, hygiene and household level products;

IR 2: Increased community knowledge and use of potable water supply and storage technologies, sanitary practices and water hygiene; and

IR 3: Improved enabling environment for WASH at national, county, district and community level.

3.3 APPROACH

The IWASH program's approach towards achieving the intended results recognizes that success relies on people and their ownership of concepts, processes and results. Therefore, the core of the IWASH program is centered on hygiene promotion through behavior change and participatory community mobilization. It is designed to meet the resulting demand through the development and distribution of point-of-use (POU) water treatment products and WASH hardware.

The Government of Liberia (GOL) plays a critical and significant role in shaping WASH-related policy frameworks and Monitoring & Evaluation (M&E) structures, and providing resources. In support, IWASH aims to strengthen the sector enabling environment. It prioritizes the capacity development of national-, county- and district-level government institutions, including the Ministry of Public Works (MPW), Ministry of Health & Social Welfare (MOHSW), and the Ministry of Lands, Mines and Energy (MLM&E), and facilitates the flow of information between the various levels.

In order to improve water supply, sanitation and hygiene, and to work towards an improved enabling environment for WASH, the program focuses on the three key hygiene improvement behaviors of 1) hand-washing with soap at critical times, *2)* consistent and year-round use of POU water treatment and safe storage and latrine/toilet usage, and 3) safe disposal of human feces.

3.3.1 Activities

To achieve the program goal, CHF identified various activities and focus areas that directly support each of the three IRs. Several products, in turn, support these activities. Most of these activities are ongoing throughout the life of the program, though some are finite and have been completed – e.g. developing a latrine manual and undertaking a baseline behavior study.

IR 1

Activity 1	Improve access to POU water treatment product
Activity 2	Increase access to and reach of market forces to support increased supply of WASH products at the community level
Activity 3	WASH-friendly schools and clinics
Activity 4	Pilot publicly-owned, privately-managed public-use toilet, hand washing and shower facilities in three urban centers

IR 2

Build Household and Community Demand for WASH Products	
Activity 1	Participatory community action through Community-Led Total Sanitation (CLTS) process
Activity 2	Develop a latrine manual
Activity 3	Build community and household demand, through social marketing, for WASH product usage and WASH infrastructure, ownership, management, and maintenance
Apply Behavior Change Communication (BCC) at the National and Community Level	
Activity 1	Undertake research in behavior determinates around sanitation and hygiene practices (baseline study)
Activity 2	Develop targeted BCC materials and disseminate messages and materials through innovative communication mechanisms
Activity 3	Work with youth groups, school bodies and Parent Teacher Associations (PTAs) to implement hygiene improvement activities for youth
Activity 4	Promote water and sanitation practices through community health clinics
Activity 5	Build skills of community leaders to speak out on sanitation and water issues

IR 3

Focus Area 1	National Sector Reform/ Policy Improvement
Focus Area 2	Improved Coordination
Focus Area 3	Improved and Sustained Community Involvement
Focus Area 4	Improved Financing and Public-Private Partnerships

3.3.2 Products

The nine products that have been identified for establishment and promotion are listed below.

1. POU Water Treatment
2. Hand Dug Wells
3. Solar Water Pumps
4. Rural Community Latrines

5. Publicly Owned, Privately Managed, Urban Public Latrines
6. Hand Pump Spare Parts
7. Household Hygiene Improvement Products
8. Hand-Washing facilities
9. Household Latrines

3.3.3 Projects

For IWASH to achieve all of the above, program implementation requires the utilization of a range of applications and initiatives. CHF and its partner, PSI, have adopted and developed six primary projects and initiatives through which to implement the program. The two organizations also utilize a couple of secondary projects and initiatives to gather information and baseline data for formulating implementation strategies and work plans, and to assist in program implementation.

Primary projects

- WaterGuard (WG) POU Water Treatment Project
- Small Wash Infrastructure Projects (SWIP)
- Sanitation Marketing (SANMARK) Project
- BCC Project
- CLTS Project
- Capacity Development Project

Secondary Projects and Initiatives

- Latrine manual development
- Field surveys to assess the situation and establish baseline data. These include
    - Tracking Results Continuously (TRaC);
    - Qualitative GAP study;
    - Sanitation marketing survey;
    - Knowledge, Attitudes and Practices (KAP) survey; and
    - Institutional capacity survey.

The table in Appendix 12.2 illustrates the link between activities, products, and projects and initiatives.

3.3.4 Indicators

Utilizing a revised IWASH implementation approach, IWASH will achieve the major outcomes shown in Table 1.

Table 1. IWASH Indicators

Indicator	Life of Program Target
Number of people in target area with access to improved drinking water supply as a result of USG assistance	203,111
Number of people in target area with access to improved sanitation facilities as a result of USG assistance	499,541
Liters of drinking water disinfected with USG-supported point-of-use treatment products	525,000,000

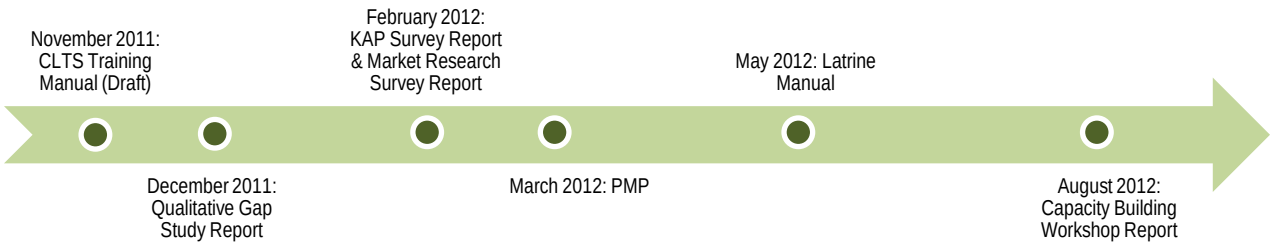
3.3.5 Partners

CHF continues to work with GOL and various international and local partners. Under the program, PSI is mandated to expand the promotion and distribution of WG as well as lead BCC activities. Chevron supports the construction of publicly-owned, privately managed urban latrines through pilot projects in greater Monrovia. CHF has awarded contracts to eleven Liberian registered WASH construction companies through local tenders, plus MANCO, Inc., which produces, bottles and distributes the POU treatment product WG; Wonders, Inc., which constructs latrines; Andalucía Estate Corporation and Bezaleel + Turnkey, which constructed boreholes; and Libra Sanitation, Inc., which partners with CHF in the operation, management and maintenance of urban public latrines. CHF and Libra are also working together to collect data and capture lessons learned from the first latrine pilot in New Georgia.

4 KEY DOCUMENTS

Several key documents are laid out as secondary projects. Four out of five of them have been completed and were discussed in detail in the semi-annual report; a recap of those documents from this reporting period is provided below, as is a timeline of when the documents were submitted. In addition, the IWASH team produced a latrine manual, CLTS training manual and report on the Capacity Building Workshop that took place in June 2012. The final report from the month-long midterm evaluation, sponsored by USAID, is forthcoming and will be discussed in detail in the next semi-annual report (October 2012-March 2013).

Timeline of Submittal of Key Documents



Capacity Building Workshop Report: In response to the findings of the KAP survey (see below), CHF, in collaboration with relevant stakeholders at the national-level line ministries, conducted the first in a series of workshops aimed at improving knowledge, attitudes and practices of WASH government actors with regard to WASH policy dissemination, interpretation, implementation and monitoring at the county and district levels. The report summarizes the activities of the workshop and includes both recommendations and a six-month action plan developed by participants.

Latrine Manual: CHF has produced a latrine manual promoting various options of constructing household latrines with the CLTS approach as a basis for achieving better sanitation. It advances low-cost, locally-available materials and includes facility use, management and maintenance characteristics. The draft was presented to USAID in May 2012. CHF intends to modify this document, updating certain information and realigning it to better complement program scale-up, before submitting for review and publishing the second edition for use by program beneficiaries and WASH sector partners.

Performance Management Plan (PMP): This important tool for managing and documenting the performance of the IWASH program allows timely and consistent collection of comparable performance data and informed decisions on program management. It was developed through a collaborative process with IWASH partners and stakeholders, and guided by the Cooperative Agreement and approved work plans. It includes narrative around the development hypothesis, results framework, performance indicators and calendar of performance management tasks. The final document of the PMP that started in August 2011 was completed during this reporting period, with support and assistance from L-MEP. It was submitted to USAID and L-MEP in March 2012. The PMP is a working document and will be reviewed and amended as necessary.

Knowledge, Attitudes and Practices (KAP) Survey Report: In an effort to ascertain the institutional relationship among the various WASH-related government staff and measure involvement in the WASH sector, a field team conducted a survey in Bong, Nimba and Lofa counties in December 2011; it included topics such as government staff roles and responsibilities within the sector, management styles and experiences, level of competence, capacity for community outreach, etc. The report, submitted in February 2012, highlighted an overall lack of awareness of WASH policies and strategies, and a need for greater coordination at all levels of the government. IWASH has begun to address the key recommendation to conduct sensitization sessions on WASH policies and strategies to ensure such documents are available at county and district levels through a Capacity Building Workshop (see above).

Sanitation Marketing Survey Study Report: IWASH prioritized a sanitation marketing strategy to link suppliers and consumers of three key sanitation products – hand pump spare parts, sanitation floor plates (sanplats) for domestic latrines, and hand-washing devices. A consultant developed and conducted surveys from August 2011 to February 2012 and found that, though vendors are willing to bring new products when demand is demonstrated, a gap exists between the financial capital that brings products and materials to shops and consumers in the community. The report lays out a marketing strategy to address this gap by working with government partners, community members, and private sector actors for a market-oriented approach for the promotion of the target products; this approach will also empower spare parts dealers and trained hand pump technicians and communities to operate and maintain WASH facilities.

Qualitative Gap Study: PSI conducted a survey in October/ November 2011 to further explore the drivers and barriers related to the priority WASH behaviors in order to improve the design of existing BCC messages. PSI focused on adult use of an improved latrine, safe disposal of children's (under 5-years old) feces and hand-washing at critical times. It found the barriers and drivers around such behaviors to be complicated and interconnected, and noted that understanding the intertwining relationships is important for programming and message development. Results were compiled in a report, submitted to USAID in December 2011.

CLTS Natural Leaders Training Manual: CHF supported the MOHSW National Coordination Unit (NCU) in adopting a manual that provides instruction for natural leaders during the pre-triggering, triggering and follow-up of CLTS communities. The first draft was printed in November 2011 and remains under review.

5 ACHIEVING INTENDED RESULT 1

IR 1: Increase access to water supply, sanitation, hygiene and household level products

IR1 revolves around building a sustainable supply of WASH products and leveraging market forces wherever possible to meet increased household and community demand for IWASH products and infrastructure. Implementation towards this end focuses on developing the capacity of local actors to manufacture (or import when needed) and distribute products and infrastructure based on sound market analysis and efficient supply chain management. Activities focus on the supply of the nine products listed in section 3.3.2, and responds directly to demand built in IR2. IR1 encompasses four of the primary projects listed in section 3.3.3 – WG distribution, SWIP, SANMARK and CLTS.

5.1 WATERGUARD POINT-OF-USE WATER-TREATMENT PROJECT

Under IR 1, PSI was initially required to implement the social marketing of WG, the project's POU household water treatment. The February 2010 realignment expanded the list of household products to include jerry cans, dish racks and clothes lines. Eleven communities are using jerry cans to store drinking water and twenty-six are now using dish racks and clothes lines.

What is WaterGuard?

WaterGuard© is a 1.25% sodium hypochlorite solution tested and approved by the Center for Disease Control and Prevention (CDC). It is effective in deactivating microorganisms such as E. Coli in water and, when used correctly in conjunction with proper storage, the product has been shown to reduce the risk of diarrhea by up to 85%. Promotion of the product in Liberia was initiated by UNICEF working in collaboration with PSI and the Ministry of Health and Social Welfare. It is produced for both sale (blue bottles) and free distribution (white bottles).

The PSI team found that working with the communities on the new products took a significant proportion of the field staff's time, creating a potential concern about the amount of effort required to promote these products versus the potential benefits. The qualitative study showed that a product like the jerry can is a barrier to the purchase of WG by community members because the jerry can is perceived to have a high additional cost once someone decides to purchase WG. As Liberia is a country that has become accustomed to free distribution due to post-war realities, marketing efforts should have gradual targets with a long-term vision of shaping a vibrant marketplace. During the DELTA social marketing workshop, the participants decided that beginning in February 2012, the focus of household products will be on WG sales and distribution.

The WG distribution/sales goal for the length of the project is 583,333 units; PSI has reached 24% of that target. At the end of this reporting period PSI was in the process of recruiting a new marketing & sales manager and will subsequently rebuild the sales team. PSI is also in the process of determining the feasibility of building its own distribution network in Liberia. Under the new marketing plan, PSI has begun creating regional sales points in each of the district headquarters, branding regional sales points, creating retail sales points using nontraditional channels, and capitalizing market day awareness (refer to section 6.2.3). While the sales team has been in transition, PSI has not been able to accurately determine how these new strategies have affected sales.

5.1.1 Procurement and social marketing of blue WG bottles

A total of 78,808 units of WG were issued, of which nearly 60% were sold and the remainder distributed free-of-charge in support of MOHSW – refer to Graph 1. PSI issues WG through routine field trips to conduct direct sales, and free distribution in target counties through events such as Global Hand Washing Day (GHWD), World Water Day, the national measles vaccination campaign, and Open Defecation-Free (ODF) celebrations. In addition, the Cape Mount county health team (CHT) requested and received 20 cartons of WG due to its border with Sierra Leone, which was facing a cholera outbreak; WG was distributed among the most at-risk population in the county.

Graph 1. WG Sales and Distribution, during this reporting period

With a sales target for IWASH at 144,322 units for the period, achievement is at 55%. One constraint identified was staff turnover, resulting in an absence of a sales team and sales manager for several months. Another constraint is the lack of access to WG in sub-national markets. As stated above, there will be a renewed focus in the next quarter on the sales, marketing and distribution of WG in order to improve sales trends.

5.1.2 Creation of regional sales points at district level

The 2011 Measuring Access and Performance (MAP) survey and Qualitative Gap study revealed perceived availability as a barrier to consumer WG use. During the marketing plan development in January and February 2012, participants agreed to set an objective to increase coverage by 7%, to a total of 25%. The target for this activity was to establish seventeen regional wholesale points spread out in Bong, Nimba and Lofa counties, which was successfully completed during this reporting period. In addition, three regional sales points, one in each county headquarters, were established during a March sales tour.

5.1.3 Branding of all major sales points in each of the three target counties

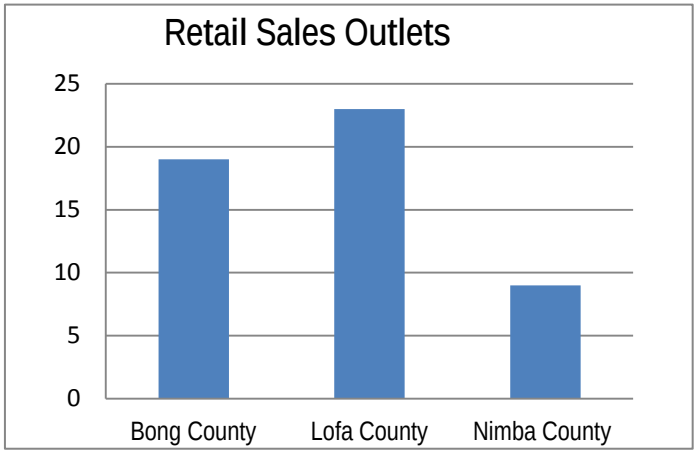
Promoting WG and motivating vendors can be done through a variety of channels, including radio spots, interpersonal communication (IPC) activities, billboards, and wall branding at regional sales points. All of the seventeen regional sales points established have a highly visible point of sale advertising channel and wall branding with the new tagline "*Clean Water, Brighter Life*!"; messaging and design was based on the marketing plan which resulted from the DELTA workshop. The public is informed of WG availability at these sales points through additional radio spots, aired daily through December 2012 in each of the three counties.

5.1.4 Creation of retail sales points using nontraditional channels

Field agents are mandated to create sales points to ensure the availability of products at community level. They visit shops and provide potential vendors with information on WG, such as wholesale and retail

prices, profit margins, stock display and the reordering process. Follow-up visits will ensure that newly created sales points will be serviced and likely to continue and grow as vendors.

Two systems are in use to stock WG at the county level. First, WG can be supplied to each County Impact Officer (CIO) at the IWASH county office, which can then be issued to the local sales points at the county level. Second, the CIOs pull from the regional sales points to create and stock the retail points at a community level. As stocking WG at the county office level can be a problem, pulling from the regional sales points has become a solution to help increase availability of WG. There were a total of 51 sales points created in the three counties during this reporting period.



Graph 2. Retail Sales Outlets, as of 9/30/12

5.2 SMALL WASH INFRASTRUCTURE PROJECT

As part of the strategy to provide communities with access to sanitation facilities and potable water, IWASH aims to construct a number of new latrines and water wells for communities in Bong, Lofa and Nimba counties. In 2011, IWASH attempted to provide these facilities by appointing international NGO ADRA to construct the structures. The approach was not successful and no new facilities were completed in 2011. In 2012, IWASH embarked upon a new approach whereby it appointed registered local contractors to construct the facilities. A total of eleven Liberian registered contractors were identified and appointed following two rounds of tendering at national level. Identified contractors were only appointed once their selection was approved by MPW.

Under the new approach the IWASH technical supervision team joined forces with MPW technical officers at the county level to facilitate and oversee works. Construction activities were monitored closely from layout stage to structure completion. Once a project reached completion and the beneficiary community approved the works, it was the responsibility of the county MPW technical officer to certify successful completion. This approach of joint project oversight proved to be successful and, during the reporting period, a number of WASH facilities have been completed in accordance with government standards.

Communities were encouraged to assist and contribute to the construction of the facilities; although they did provide assistance by offering unskilled labor and sourcing sand and gravel locally, this all happened on the condition that the contractor compensated the community for labor, services and materials provided. No community was prepared to contribute freely towards the construction of the facilities.

The rate of construction during the reporting period was slower than anticipated for a few reasons. First, most contractors have limited resources and equipment and work only on one structure at a time. Second, MPW technical teams at the county level are small with limited capacity and resources. Third, the road

conditions during the rainy season often made it virtually impossible for contractors to transport material to the remote construction sites.

It was possible to increase the delivery rate during the reporting period by merely increasing the number of contractors on the project. The resultant increase in supervision requirements would, however, have necessitated the appointment of additional short-term technical staff and the provision of transport for these officers. Although construction activities did not progress in accordance with the 2012 Work plan schedules, the current delivery rate was still such that all SWIP projects would be completed well ahead of the IWASH program completion date and would not jeopardize successful program completion. It was therefore decided not to commit more resources in appointing additional contractors and supervisors. It is expected that SWIP currently earmarked for implementation will all be completed in 2012; Table 2 shows SWIP progress to date.

Table 2. SWIP Progress to Date

Activity	Original target	Committed	Contracted	Completed
Hand dug wells - new	39	26	26	21
- rehab	45	55	55	55
Boreholes established	10	10	10	9
Institutional latrines	24	17	17	11
PPP latrines	3	2	2	1

5.2.1 Product 2: Hand Dug Wells

IWASH initially identified thirty-nine communities, schools and clinics for construction of hand dug wells through 2012. Due to the delay in construction caused in 2011, a number of the communities and institutions on the IWASH beneficiary list received assistance from other organizations. This reduced the IWASH beneficiary list to twenty-six projects.

IWASH deployed two contractors to each of the three target counties and construction activities commenced in February 2012. Although the rate of construction was slower than anticipated, progress was steady and the quality of workmanship was superior to that of 2011. Construction progress of wells reached 80% during the current reporting period; output to date is shown in Table 3 below.

Table 3. Establishment of New Hand Dug Wells to Date

County	Original Target	Committed	Contracted	Completed	Handed over
Bong	13	9	9	5	3
Lofa	13	9	9	9	6
Nimba	13	8	8	7	3
Total	39	26	26	21	12

5.2.2 Boreholes

In 2011 IWASH appointed two drilling contractors, Bezaleel and Andalucia, to drill boreholes at nine RBHS clinics in Bong, Lofa and Nimba counties and one at the Zorzor high school in Lofa County. All drilling was

completed in 2011 and all borehole development was completed by April 2012. Six of the boreholes were later found to produce turbid or insufficient water and the contractors were instructed to address the issue.

Repairs were carried out at the sites, but upon inspection it was found that five boreholes still had problems. Despite urging the contractors to return and fix the problems, this did not happen, and IWASH attempted to appoint new contractors to repair the wells in July. Unfortunately, severe road conditions caused quotes to be in excess of retention money on hand. Retention money will now be utilized to appoint a contractor at the end of the rainy season when prices return to normal.

5.2.3 Product 3: Solar (Photovoltaic) Powered Water Pumps

During the reporting period, boreholes were drilled at nine RBHS clinics. The initial intention was to construct a concrete frame water tower with storage tank and power pump at each of the facilities. The construction, procurement and installation cost of such facilities is high, and after consultation with RHBS, it was decided to provide the towers and tanks only if a facility contains internal plumbing. Following a survey of clinics to assess the plumbing situation, it was determined that submersible pumps will be installed at four health facilities; development plans are laid out in Table 4.

Table 4. Further Planned Development of Boreholes

	County	District	Clinic	Intervention planned			
				Submersible pump	Solar power	Water tower	Storage tank
1	Nimba	Saclepea Mah	Kpatuo	X			
2	Nimba	Belleh - Geh	Zogowee	X	X		
3	Lofa	Zorzor	Kornia	X	X		X
4	Lofa	Voinjama	Bazagezia	X	X	X	X

The standard means of transferring water from a borehole to storage tanks utilizes a submersible, electrical pump powered by a generator. The community is familiar with this equipment, and when breakdowns occur, they generally know how to do repairs. However, clinics often do not have sufficient operating funds to provide fuel for the generator on a continuous basis.

In an attempt to address this problem, IWASH intends to pilot the use of renewable energy through solar panels to power the borehole pumps. IWASH has been researching the availability of solar technology, products and maintenance services in Liberia and plans to procure and install the equipment once current issues with boreholes have been sorted out and storage tanks have been placed at identified clinics.

5.2.4 Rehabilitation of Water Points

According to the Liberian Water Atlas, more than 40% of wells and boreholes with hand pumps were not in working order in Bong, Lofa and Nimba counties in 2011. The main reason for this was lack of maintenance. Availability of pump spare parts also played a contributing role.

IWASH has, to date, provided communities with access to potable water mainly by establishing new wells and boreholes. The exception was during the Ivorian refugee crisis in 2011 when IWASH rehabilitated fifty-five wells, mostly in Nimba County, to provide water access to refugees. In the future IWASH aims to address the situation by concentrating on the rehabilitation of water points instead. Contractors will be appointed to repair water points at schools and clinics while IWASH utilizes the CLTS project to encourage communities to be responsible for the maintenance of their own water points. IWASH would then also facilitate the training and establishment of well repair and maintenance entrepreneurs (refer to Section 5.3.1) that can be hired by communities to repair wells and pumps in the villages.

IWASH currently facilitates the construction of new water wells and the rehabilitation of defective water points by soliciting for and appointing registered local contractors to conduct the work. This approach has proven to be effective, though a bit slow, and the initial plan was to follow a similar approach to repair water points at schools and clinics. It has, however, since been realized that these projects would provide a good opportunity for newly-trained water point repair entrepreneurs to establish their ventures. Instead of appointing established contractors to repair the school and clinic water points on the IWASH tasks list, the repairs will now be contracted out to the newly-trained water point repair entrepreneurs. This project will commence as a pilot in Bong. If it proves to be successful it will also be implemented in Lofa and Nimba counties.

During the reporting period, IWASH staff has collaborated with Ministry of Education (MOE) staff in Bong County to identify school water points in need of repair. The next step would be to do an assessment of all these facilities and prepare bills of quantity, after which they would be handed over for repairs to the newly-trained pump repair entrepreneurs. The development of such a project is still in its planning stages and for this reason no water points have been rehabilitated during the reporting period.

5.2.5 Product 4: Rural Community Latrines

As part of their effort to establish and promote WASH friendly schools and clinics, and to increase access to water supply and sanitation for children, IWASH aims to construct a number of latrines in Bong, Lofa and Nimba counties. The original target was to construct latrines at twenty-four schools and clinics through 2012, but, as was the case with provision of wells, delays resulted in interventions by other agencies. This reduced the tasks list to seventeen schools.

IWASH Rural Latrine

As was the case with the construction of wells, IWASH joined forces with MPW officers at county level to tender for, identify and appoint six contractors to construct the double pit latrines in accordance with the national *Guidelines for Water and Sanitation Services in Liberia.*

Construction works were monitored by joint IWASH/MPW technical field teams and completion certification has been conducted by the county MPW technical officer after the project was approved and accepted by school management. Construction progress on the 17commissioned latrines currently stands at 70%; ouput is shown in Table 5.

Table 5. Rural Institutional Latrine Construction Output, Progress as of March 31, 2012

County	Original Target	Committed	Contracted	Completed	Handed over
Bong	8	4	4	3	0
Lofa	8	8	8	5	0
Nimba	8	5	5	3	2
Total	24	17	17	11	2

5.2.6 Product 5: Urban Public Latrines

In an attempt to alleviate the shortage of urban ablution facilities, and develop a model for areas of need in the city, IWASH has partnered with Chevron and Libra to design and implement pilot latrine projects around greater Monrovia. USAID, Chevron and Libra provide capital investment funds and Libra operates and manages the facilities, but ultimately, they are owned by the communities themselves through the office of the Superintendent of Montserrado.

The first pilot project was a latrine in the New Georgia area of greater Monrovia. The structure, which opened for business in February 2012, is separated into two sections, male and female. The male section includes 4 toilets, 2 showers, 2 urinals and 2 hand washing basins; the female section includes 5 toilets, 2 showers and 2 hand washing basins. Costs range by the three services offered: 5LD (USD$ 0.07) to urinate; 10LD (USD$ 0.14) to defecate; 15LD (USD$ 0.20) to bathe.

The Superintendent of Montserrado County, Ms. Grace Kpan, appointed Libra to operate the New Georgia Latrine. IWASH staff has visited the facility on a regular basis to monitor operations and collect data on usage and operating expenses; monitoring will continue through December 2012. Data was recently analyzed to determine the efficiency of operations and identify challenges; it uncovered lower utilization rates than projected, but has resulted in the exploration of alternative operations and management models. (Refer to Appendix 12.3 for the case study.) IWASH also facilitated regular meetings between the community and the operator to address community grievances and operator challenges.

New Georgia Latrine

In the development of a second pilot project in Logan Town, located in Gorworlohn Township, the main challenge has been the availability of land. During the past year, IWASH management has conducted meetings with senior

officials of both the Monrovia City Corporation and the Paynesville Municipality. Possible construction sites identified turned out to be occupied by encroachers or were not freely accessible to the general public.

Available land was finally identified in Logan Town, after Ms. Kpan referred IWASH management to Ms. Williametta Gooding Carlos, Commissioner of Gorworlohn Township. Ms. Carlos escorted the IWASH team through Logan Town and introduced the team to a family in the community that has offered to donate land for the construction of an ablution facility for the community. IWASH staff administered a survey to determine the need for a facility in the township, then held discussions with a number of community representatives and members to explore their needs and expectations. IWASH later met with staff at MPW and MOHSW to receive their input into the design of an appropriate facility for the Logan Town community. On the request of MPW, IWASH prepared building plans that incorporated the input and recommendations of both ministries and addressed community needs.

Once IWASH received MPW approval of the facility design, it tendered out the project and identified a contractor. An agreement was signed with this contractor in late September. He will commence with construction of the facility as soon as the community and property owner have signed an official agreement allowing the land to be utilized for the facility. This is expected to happen in October 2012.

Proposed Site for Logan Town Latrine

Although the municipalities of both Monrovia and Paynesville were unable to identify suitable land for the construction of a third facility, IWASH is confident in its current efforts to locate land. The plan is to either construct a new facility or renovate existing facilities in the Redlight District, a bustling market area. There is an urgent need for ablution facilities and although land will most likely not be donated freely, the current demand will generate sufficient income to enable a long-term lease of property.

5.3 SANITATION MARKETING PROJECT

By stimulating behavior change through the implementation of CLTS and BCC, IWASH assists in improving hygiene and sanitation standards within communities. As a result, the demand for WASH products and services increases. To make sure that momentum gained through CLTS and BCC is not lost, it is important that communities have easy access to these products and services. One of the strategies that IWASH employs is to increase access to and reach of market forces to build supply network capacity and support increased supply of WASH products at the community level. During implementation of CLTS and BCC, IWASH has identified three products for promotion - hand pump spare parts for wells, tippy-tap hand-washing devices, and sanplats for domestic latrines.

In 2011 a marketing consultant was employed to conduct a market research survey to identify behaviors, opportunities, and barriers for the marketing of these products. The survey focused on understanding both the supply and demand aspect of each product by targeting household decision-makers , vendors, and

masons. In early 2012, upon completion of the study, the consultant prepared strategies for establishing sustainable supply lines for these products. IWASH has been utilizing the study as a guideline in formulating an implementation plan to mobilize private industry to cater to community needs generated by behavior change.

5.3.1 Product 6: Hand Pump Spare Parts

IWASH initially planned to address the issue of water pump maintenance by training young people in communities to become pump attendants and by developing a spare parts supply network to make parts easily available for purchase by communities. Forty-eight community members in the three target counties have received basic pump repair training to date. IWASH also procured a supply of spare parts that was intended to stimulate trade by supplying the parts to community vendors to sell to communities when the need arises.

Hand-pump in Banamah, Bong County

It was found, however, that many communities do not have the will or systems in place to access resources to purchase spare parts when needed. The resultant lack of demand for parts discourages community vendors from stocking these parts. There is also a trend in migration to urban areas during parts of the year, meaning many of the trained pump attendants are not in their villages and towns year-round.

To address the situation the CLTS field teams have since started advocating the importance of WASH infrastructure maintenance and cash box systems to communities. IWASH is currently working with the NCU to include this as an official component of the CLTS process.

IWASH has also adjusted its strategy on the supply of spare parts by not focusing on supply at the community vendor level, where demand will remain insignificant, but rather to identify persons with entrepreneurial ambitions in the target counties and districts that would be interested in establishing small businesses to maintain and repair water wells. These persons will then be provided with training and skills that equip them to start such enterprises. They will purchase these parts from county and district vendors in order to supply the demand at community level.

As part of its work plan, IWASH intends to rehabilitate a number of water points at schools and clinics over the next three years. The trained pump attendants will be contracted to do these repairs. IWASH will provide them with support in the execution of the projects and it is anticipated that many of these trainees will become independent contractors that will market themselves and continue with their enterprises beyond the life of IWASH. They will source and procure spare parts from existing suppliers.

5.3.2 Product 7: Household-Level Hygiene Improvement Products

It was found that prefabricated sanplats for domestic latrines, while successful in other countries, are not currently in demand in Liberia. The main reason is that, while families have to spend money to purchase a

sanplat, they can source sufficient timber in the surrounding forest to construct a sturdy and equally-functional latrine floor plate at no cost. The situation might change in the future if standards improve.

While it will be promoting the use of concrete floors as a more hygienic latrine floor option than wood, IWASH will not be initiating or facilitating a manufacturing and supply network for sanplats at present, given the lack of demand.

5.3.3 Product 8: Hand Washing (Soap and Tippy Tap)

Tippy tap hand washing devices appear to be a practical and inexpensive application utilized by most IWASH CLTS communities. In an attempt to increase the scope of activities through which a livelihood could be earned, IWASH intends to incorporate the production and supply of these devices in the array of services that the water point repair entrepreneurs can offer to communities. Entrepreneurs will be trained and encouraged to manufacture and sell the devices as part of the range of services they offer; the first group will receive training in the following reporting period.

5.4 COMMUNITY-LED TOTAL SANITATION PROJECT

Details on the CLTS project can be found in the next section of this report.

Rural Community Latrine in Banamah, Bong County

5.4.1 Product 9: Household Latrines

Although the main focus with the CLTS project is to increase community awareness of the importance of proper sanitation and water usage habits, the project also expects communities to construct latrines to enable them to progress towards ODF status. In CLTS communities, two hundred and forty-seven latrines have been constructed; though some of these are shared among households, it points towards a positive trend in the desire to have easy access to such facilities. The construction of these latrines will contribute greatly towards the program indicator on the establishment of sanitation facilities.

6 ACHIEVING INTENDED RESULT 2

IR2: Increased community knowledge and use of potable water supply and storage technologies, sanitary practices and water hygiene

To achieve IR2, IWASH works with GOL, private sector and local communities to increase knowledge and create viable demand for WASH products and infrastructure. Two projects, CLTS and BCC, stimulate demand for WASH products through active participatory community action and social marketing for WASH products, infrastructure ownership, management and maintenance. These two projects are focused on the three key hygiene behaviors listed in Section 3.3

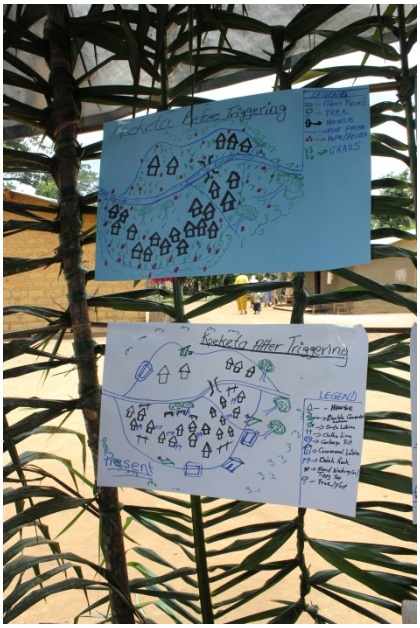
The CLTS and BCC approaches are inherently linked and supportive of each other; while the CLTS triggering process in communities leads to sustainable sanitation solutions through latrine construction, targeted BCC activities (mass media, Information, Education and Communication materials) reinforce the reasons how and why the triad of key behaviors are essential in the prevention of diarrheal diseases. Increased demand is also met with the increased supply of WASH products achieved under IR1. This section addresses both subheadings under IR2, *Building Household and Community Demand for WASH Products* and *Applying BCC at the National and Community Level* through the CLTS Project and BCC Project subsections, respectively.

6.1 COMMUNITY-LED TOTAL SANITATION PROJECT

CLTS is an innovative methodology for mobilizing communities to completely eliminate open defecation, developed in Bangladesh around the year 2000. Overall, CLTS has not been widely successful in Liberia and many actors are facing challenges in implementing the process throughout the country. IWASH met the target for implementation during this reporting period for triggering, which was forty-five communities in the three IWASH target counties, but fell short of the goal of thirty communities achieving ODF status. IWASH currently boasts the most success around CLTS in Liberia with forty-seven triggered communities in three counties, twenty-six of which are ODF; this translates into a 55% success rate. (Refer to Appendix 12.4 for a full table of CLTS targets and achievements.) As more organizations move toward CLTS, they will count on IWASH to share experiences and, ACF, Oxfam, UNICEF and OIC have already visited us for tips.

What is CLTS?

This approach, now used in more than 25 countries, facilitates communities to conduct their own appraisal and analysis of open defecation and develop a plan of action to become open defecation-free (ODF). CLTS focuses on behavior change needed to ensure real and sustainable improvements – investing in community mobilization instead of hardware. CLTS triggers the community's desire for change, propels them into action and encourages innovation, mutual support and appropriate local solutions, thus leading to greater ownership and sustainability. It accomplishes all of this without external subsidies for latrine construction.



Banamah ODF Celebration, Bong County

Maps of Kpeketa village, pre- and post-triggering. The pre-triggering map includes location of human feces in the open; the post-triggering map shows no feces in the open and that latrines, clothes lines, garbage pits, dish racks and hand-washing stations were added

6.1.1 Formation of CLTS County Steering Committees

On behalf of the NCU, the IWASH team facilitated county-level CLTS seminars within the three IWASH target counties to explain the CLTS process and establish county steering committees (CSCs). These seminars also secured political will and fostered coordination. Since the end of 2011, IWASH has employed a strategy in which CHF joins forces with government employees to form CLTS CSCs responsible for county-level CLTS activities including monitoring of natural leaders. Each county now has such a committee chaired by MOHSW and co-chaired by MPW; additional participants include the Ministry of Internal Affairs (MIA), the Liberia Institute of Statistics and Geo-Information Services (LISGIS), traditional leaders and other CLTS partners.

At the district level, Environmental Health Technicians (EHTs) are responsible for CLTS, though engraining this responsibility in the EHT job description is a work in progress, as is incorporating WASH activities in other relevant position descriptions. Originally the IWASH team had considered CLTS structures at district and community level, but has since determined that there is no need for additional committees.

6.1.2 Training of Community Leaders

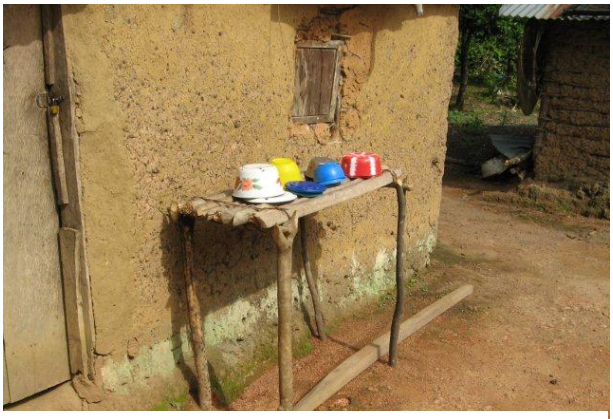
IWASH supported training for forty-six CLTS facilitators during this reporting period through workshops. CLTS facilitators are government employees at the county and district level that CLTS CSCs identified as key stakeholders. The NCU provided the trainers for the five-day workshops across all three counties, during which facilitators assisted in the triggering of seventeen new CLTS communities (refer to Section 7.3 for more information on natural leaders).

6.1.3 Open Defecation-Free Celebrations

During this reporting period, and to date, twenty-six of the communities in the three counties achieved ODF status; one community in Bong actually self-triggered and achieved ODF status. In collaboration with the NCU and county authorities, IWASH held five celebrations in the three target counties since July 2012.

Banamah ODF Celebration, Bong County

Key government authorities and IWASH partners were present to witness the cultural performances, participate in the walk around the community that showcases improved sanitary conditions, and offer praise to key CLTS leaders. Refer to Appendix 12.5 for a case study on achievement of ODF, and the CLTS process, of Suakoko District in Bong County.



Women standing proudly next to their clothes line; a dish rack in a rural community

6.2 BEHAVIOR CHANGE COMMUNICATION PROJECT

Behavior change has become the crux of IWASH around which the various projects revolve. Naturally, BCC has become increasingly important in achieving lasting improvement in Liberia's WASH sector. PSI is mandated to expand the promotion and distribution of WG as well as lead BCC activities, disseminating IWASH messages through various outlets. During this reporting period, PSI concentrated on the qualitative gap study, a workshop that created a marketing plan for the software component of IWASH, and the implementation of this marketing plan.

6.2.1 Qualitative Gap Study

The qualitative gap study was designed to explore the complex motivational and contextual barriers and drivers in relation to the adoption of three WASH behaviors: use of latrines and adults feces disposal, safe disposal of children under-five's feces, and hand washing at critical times. The other objectives of the study were to build one or more character archetypes to be used in the DELTA social marketing planning process (see Section 6.2.2) and to describe the 'openings' – when, where, and by whom target audience members can be reached.

The qualitative gap study was conducted using rapid qualitative research and ethnographic methods, to gather information in the above mentioned areas. This study was conducted in the three target IWASH counties among twenty male and female caregivers, aged ten and seventeen. All caregivers were rural inhabitants and of a low socio-economic status. The qualitative method utilized an assortment of exercises, tools, and techniques to collect and analyze data. PSI trained staff from the MOHSW HPD, LISGIS, WASH Consortium, and WASH Reporters and Editors (R&E) Network to use tools for the qualitative gap survey. More information on the study methodology, design, data analysis and data management can be found in the official study design, titled *Liberia (2011): Understanding The Drivers And Barriers For Hand Washing And Sanitation Practices Among Caregivers Of Children Under Five In Three Counties Of Liberia*; copies can be requested from PSI.

LISGIS and PSI staff collecting data in Bong County

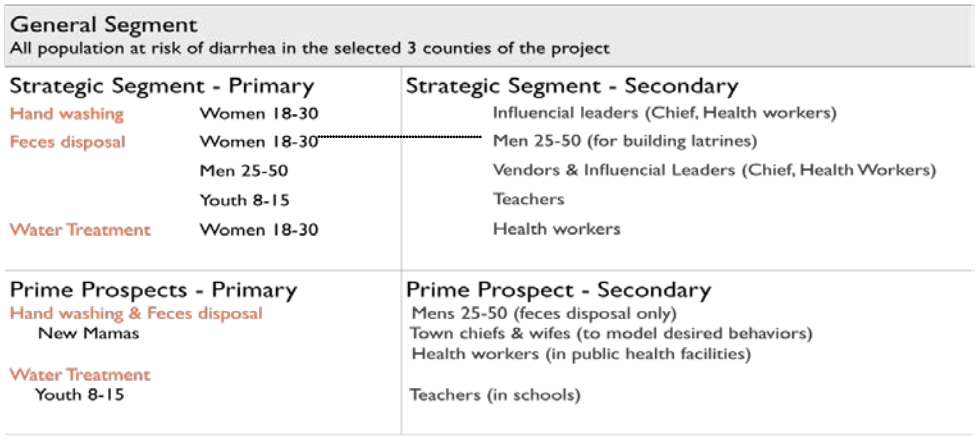
The qualitative gap study was able to identify drivers and barriers for the adoption of the desired WASH behaviors. These insights formed the foundation for the development of the key messages in the DELTA social marketing planning process, which resulted in a newly-focused and strategic IWASH marketing plan. The results of the qualitative gap study allowed the IWASH team to proceed with IR2 by crafting marketing plans to continue the software component of the program.

6.2.2 Creation of Marketing Plan

The PSI process for creating a marketing plan is called “DELTA.” Its key components include audience insight, brand position and situation analysis as shown in the figure below. Briefly, the DELTA process begins with a situation analysis and identification of strategic priorities for the communication or marketing plan. By putting the target audience at the center, the DELTA process helps to define objectives around the 4P’s of marketing (product, place, price, and promotion) and to develop a communications mix that will reach the target audience at appropriate times with appropriate messages, in order to influence behavior change.

The foundations of the DELTA approach are audience insight, brand positioning, and market dynamics. In the IWASH DELTA this meant drawing together the findings from the quantitative research (TRaC), qualitative research (Gap Study), and lessons learned from implementation to segment the audience, create several audience archetypes to orient behavior change messages, position the WG brand and IWASH behaviors (hand washing, water treatment, feces disposal, and latrine building), define marketing objectives for 2012, and lay out the 4P plan to achieve those objectives.

Substantively, the IWASH marketing plan identifies the following segments:



Archetypes were developed for mothers, fathers, and older sisters. Positioning was developed around cleanliness, since that appeals to all segments and joins the disparate desired behaviors.

Until the DELTA marketing planning process brought together all of the insight from the research and from implementation experience, the focus of the messaging was on building knowledge. However, the research clearly shows that although practicing desired behaviors is low, knowledge levels are quite high. Furthermore, the research showed that social norms are the primary barrier to increasing hand washing, water treatment, and safe feces disposal. However, increasing knowledge will not be ignored as each of the desired behaviors does have an aspect or detail where knowledge lags behind. For example, it is not widely known that soap reduces germs and should be used when washing hands, or that clear water is not an indication that water is safe to drink.

The 4P marketing mix for WG will include improvements in packaging and placement alongside soap and other personal cleaning products in shops and market outlets. For hand washing, the positive messaging will be about how clean hands show respect when shaking hands. For water treatment, the messaging will emphasize that a short amount of time (thirty minutes) can provide clean water for the family for a whole day. For feces disposal, the messaging will be how disposing feces correctly instills pride in a clean home. And for the worried father, the messages will communicate that building a latrine makes him a leader in the community by protecting his family.

The IWASH DELTA was conducted from January 25-Februrary 3, 2012 and led by PSI's West and Central Africa marketing expert, Frederic Persoons. PSI's WASH expert, Katharine McHugh also participated; both staff was paid for by PSI. The participants included the PSI IWASH team, the CHF M&E officer, the incoming Country Representative, Reid Moorsmith, a representative of the MOHSW HPD, and other WASH partners.

6.2.3 Implementation of Marketing Plan

Mass Media

During the period, five radio spots and two dramas were produced promoting water treatment, latrine use

and latrine construction; messages were developed as a result of the DELTA social marketing workshop. The existing radio spots, focused on hand washing and water treatment, began airing in September 2011 and the new spots, dramas and talk shows began airing in July 2012. There was a delay in the airing of the new messages because PSI did not receive the clearance from MOHSW in a timely manner. PSI worked with the HPD on the development of the script but pre-testing by MOHSW caused a significant delay. The following table shows the number of radio spots aired through five radio stations.

Table 6. Mass Media: Radio Spots

Radio Jingle		3,480
	Hand Washing	532
	Water Treatment	2,252
	Latrine Use and Construction	696
Radio Dramas		65
	Water Treatment	48
	Latrine Use	17
Talk Shows		7
	Water Treatment & Latrine Use	7

In August 2012, MOHSW mandated that a Cholera Prevention Task Force be formed due to the cholera outbreak in neighboring countries. PSI has provided support to this committee by airing cholera emergency jingles forty-two times on national radio as a precautionary measure for cholera outbreak prevention.

Interpersonal Communication

Interpersonal Communication (IPC) is any face-to-face interaction with a target audience that aims to change people's behavior. It is an important channel in a social marketing plan as it allows for personal, customized, and more detailed messaging than mass media. IPC can be carried out one-on-one, or with one or two IPC "conductors" and a small group. The IWASH IPC intervention reached 31,152 people using both approaches.

Peer sessions in target schools

School-based safe water, sanitation and hygiene promotion have an impact on knowledge and behavior among students; it also influences their families, as students are encouraged to share what they learn in school at home. The trained Peer Educators (PEs) continue their work with a special focus on hand washing and the CIOs conduct monitoring visits to ensure the quality of work. Between October 2011 and September 2012, the 146 active trained PEs reached a total of 36,861 peers.

Health talks in target clinics to reach mothers and caregivers of children under five

Clinic days present excellent opportunities to engage mothers and caregivers of children under five on WASH-related topics, such as the use of WG, safe disposal of feces, and hand washing at critical times as means of preventing diarrheal diseases. With the new marketing plan, clinic days have been identified as a

key place to reach the strategic key target group, new mothers aged 18-30 years old. During the period there were a total of 299 health talks conducted in Bong, Lofa and Nimba counties.

CIO Demonstrating how to use WaterGuard in a Bong County Clinic

Household Visits

Field staff in Bong, Lofa and Nimba visited 1,902 unique households. During these visits, the field staff observed many WASH-related issues such as water storage, cleanliness of the dwelling, solid waste and other hygiene related issues; field staff emphasized safe disposal of feces and drinking water treatment.

Community and Market Day Events

Once a month field staff in Bong, Lofa and Nimba counties conducts market day and community events. Market days provide an opportunity to promote WG, both for purchase to marketers and for distribution to vendors. Community events are held in the various IWASH communities to create awareness and promote healthy behaviors. Each community event focuses on one target audience and uses messages that were designed for that target audience based on the DELTA workshop.

7 ACHIEVING INTENDED RESULT 3

IR3: Improved enabling environment at County, District, and community levels

Engagement with government partners and other key stakeholders is crucial to facilitating the creation of a sustainable enabling environment rich with ownership, leadership, and community-level operation and maintenance. Great effort has been put into ensuring that the national-, county-, and district-level authorities, as well as local opinion and community leaders, are actively involved in planning for WASH and take the lead on implementation and M&E. IWASH activities under IR3 are designed to lead to the development of system-wide models that can replicate successful outcomes under IRs 1 and 2. Key focus areas include national sector reform/policy improvement, improved coordination, improved and sustained community involvement, and improved financing and public- private partnerships.

7.1 NATIONAL SECTOR REFORM/POLICY IMPROVEMENT

IWASH works with government stakeholders and development partners at all levels, conducting meetings and other activities (workshops, seminars, dialogues) to detect prevailing sector reform and policy improvement issues in order to identify policy gaps and make policies more responsive to present day realities. IWASH activities ensure that WASH policy and sector reform documents are sourced at the national level and distributed at the county and district levels; IWASH also works with government partners at these levels to conduct refresher sessions on their roles and responsibilities.

IWASH has participated in major WASH policy development initiatives since its inception. As a member of the National Water, Sanitation and Hygiene Promotion Committee (NWSHPC), IWASH took part in the review of the Liberia WASH Compact, the WASH Sector Strategic Plan 2011-2017, and the WASH Sector Investment Plan 2011-2017. President Ellen Johnson Sirleaf signed the WASH Compact in January 2012, a major achievement for IWASH and the broader WASH community in Liberia. These documents now form the nucleus of WASH sector policy direction for the period 2011-2017.

IWASH has also participated in various other policy development activities, including the following: a two-day consultative workshop organized by UNICEF and MPW on the development of a WASH proposal for interventions in six counties; the capacity development assessment and planning process, spearheaded by the NWHSPC, through participation in various workshops and meetings; a two-day workshop organized by the Liberia Municipal Water Project (LMWP) to review and develop its Year 1 implementation work plan; a one-day workshop organized by LMWP to review and develop its Year 2 Implementation Work Plan; and a one-day WASH implementation partners Capacity Building Assessment Tools workshop organized by USAID for all its health sector implementing partners, as a way of facilitating coordination and maximizing effectiveness.

IWASH is serving as a member of the National WASH Task Force. In this role, IWASH is supporting the planning of an advocacy strategy for the issuance of an Executive Order by the President to establish the Water Supply and Sanitation Commission (WSSC), which would regulate water and sanitation service delivery. The Task Force meets regularly and has previously presented a draft of its advocacy plan to the committee. The final plan is to be presented to the committee at the October 2012 meeting. The plan

includes activities such as dialogues with members of the national legislature, radio talk shows, open letters written by students and other stakeholders to the President, football tournaments, etc. In addition, the Task Force is committed to the establishment of a standing committee on WASH in the national legislature; as a result of its work, a bill was introduced for the establishment of such a committee and will be deliberated when representatives return from the agriculture break.

During this reporting period, IWASH management formed part of a five-person Liberia delegation that attended the high level and multi-stakeholder dialogue held in Ouagadougou, Burkina Faso from December 5-8, 2011. The conference brought together stakeholders to discuss ways to bridge the financial gaps in the water and sanitation sector by developing recommendations for African countries. Key policy reform and improvement recommendations made during the conference were laid out in the Semi-Annual Report. IWASH is currently collaborating with the NWSHPC, other partners, and civil society to engage government in ensuring that these decisions are implemented in a timely manner.

Together with other partners, IWASH facilitated the organization of the NCU through the CLTS re-engineering meeting. The NCU is comprised of MOHSW and MPW staff and is responsible for the coordination of all CLTS activities at the national level, post-triggering monitoring and certification of communities that achieve ODF status. IWASH also participated in the drafting of a National Standard Operating Procedures (SOP) for CLTS which includes a database for monthly use by each partner. The SOP has been pending for one year; a strategy meeting was held in August 2012 to address the issues stalling the process. IWASH also met with the NCU and other stakeholders in February 2012 to develop an implementation strategy for the six-month period from March through September 2012. The strategy includes consultative meetings, training, monitoring, and ODF celebrations.

The KAP survey revealed the unfamiliarity of government actors in the WASH sector with related policy. In an attempt to rectify the situation, IWASH will hold a series of workshops in which documents are distributed and interpreted by participants; the location will rotate and will involve actors from both county and district levels. The first of these workshops was conducted at the Youth Center in Gbarnga, Bong County and attended by a total of eighteen participants at the county level from MOHSW, MPW, MOE, and MIA. Participants developed a six-month action plan on policy application and implementation that is being monitored by IWASH field staff in the three IWASH target counties; the resultant report will be completed in December 2012 and monitoring at the district level will commence next reporting period.

IWASH has supported the printing and distribution of key WASH policy documents. For the WASH Compact, over 400 copies were printed and distributed to key stakeholders at all levels of government. They were distributed to delegates that attended the recent, high-level ministerial WASH conference in Monrovia in March 2012 and the high-level meeting of finance ministers, WASH sector ministers, and global lending institutions in Washington, D.C. There are plans to provide copies of the WASH Compact and other WASH policy documents to tertiary institutions as well, both to ensure availability and stimulate interest in the sector.

IWASH completed the renovation and handing over of an office space in the basement of the Liberia Hydrological Survey building of MLM&E to serve as provisionary working space for the process leading to

the establishment of the Liberia WSSC. The Commission, once established, will regulate tariffs, licenses, PPPs, service standards, and water laws compliance.

7.2 IMPROVED COORDINATION

The IWASH team has become a valued partner in the WASH sector of Liberia, especially in the last ten months. It has been proactive in engaging the sector through participation in national- and county-level coordination groups and providing substantive material and service support to national WASH coordination, especially in its work to gain presidential approval of the Liberia National WASH Compact. During the reporting period, IWASH has participated in various meetings with USAID partner Tetratech, responsible for establishing a water supply reticulation network, management system and institution for the urban centers in Lofa and Nimba counties; the two programs collaborate on matters aimed at improving the enabling environment. Additionally, IWASH meets with organizations such as RBHS, UNICEF, the WASH Consortium, Water Aid, the LMWP, and others to coordinate activities aimed at strengthening the WASH sector in Liberia. For example, IWASH conducted joint monitoring visits with RBHS, MOHSW, and MPW to troubleshoot borehole construction activities in Bong, Lofa, and Nimba counties. These joint monitoring visits led to the correction of problems on boreholes that were not functioning properly.

The IWASH team is involved in networking with key ministry stakeholders at various levels of government. At a national level, IWASH representatives continue to participate in sector wide meetings including the Hygiene promotion coordination meeting held at MOHSW, the WASH Technical Committee meeting held at MPW, monthly NWSHPC meetings, weekly Montserrado County cholera coordination meetings, and the National CLTS steering committee meeting. At a county level, the IWASH team attends monthly CHT meetings chaired by various county teams and hosts the monthly WASH coordination meetings.

The IWASH team has worked closely with the NCU and CSCs through regular coordination meetings; these meetings are intended to serve as a technical working group to coordinate the activities and process of CLTS throughout the country. IWASH provides logistical support to the NCU and CSCs; they have been supplied with a small consignment of stationary and weekly transport for monitoring visits. IWASH also facilitated a field trip for the NCU in January 2012 to the three target IWASH counties.

MOHSW ran a measles vaccination campaign for all children aged 6 to 59 months. In support of this campaign, and extending WG coverage nationally, IWASH distributed WG free-of-charge to mothers and caregivers who attended the vaccination sites in health facilities in the three IWASH target counties from November 25th to December 1st. This distribution motivated parents to send their children to be vaccinated. In order to track distribution and conduct awareness around the importance of potable water, safe drinking water, and the correct use of WG, PSI staff, representing the IWASH project, were present in the health facilities where the children were being vaccinated. A total of 1,149 cartons of WG (24 bottles per carton) were distributed through this channel; breakdown by county is shown in Table 7.

Table 7. Breakdown of WG Bottles and Cartons Distributed through MOHSW Measles Campaign

County	Number of WG Bottles	Number of WG Cartons
Bong	8,544	356
Lofa	7,176	299
Nimba	11,856	494
Total	27,576	1,149

The IWASH team has also been active in WASH sector events and programs. IWASH was a core sponsor of the first annual WASH Market Day on September 6, 2012, led by MOHSW, which offered WASH stakeholders from both the public and private sector a venue to exhibit their goods and services. The event was hosted in collaboration with the WASH Consortium and aimed to link supply and demand for improved, locally-owned and sustainable WASH products and services in Liberia. IWASH served on the planning committee and played a key role in the development of marketing materials for the event. CHF and PSI together represented IWASH, educating visitors about the program and selling WG.

IWASH supported World Water Week in March 2012 and World Toilet Day in November 2011. The World Water Day event was celebrated at the county level on March 22, 2012. The IWASH team used online materials from the Food and Agriculture Organization for the key messages and banners, which were produced and sent to each of the three counties to support field work. The field staff was also provided a list of information to be shared with the guest speakers at county celebration events. Schools were involved in the celebration events. Target schools, where IWASH has peer education programs, were invited to an indoor celebration. This was broadcast live, in partnership with the community radio stations, for those not in attendance. The key components of the celebration included a guest speaker and a game organized for the school-aged children around the number of liters of water needed daily.

The IWASH table at the MOHSW First Annual WASH Market Day

For World Toilet Day, field staff enhanced awareness around the importance of having and using latrines for two weeks in November. Staff conducted door to door visits to disseminate this message. The staff also used this opportunity to emphasize the importance of maintaining clean latrines. During these activities, related brochures were widely distributed.

Last year's National GHWD Celebration was postponed until October 28th, but outside Monrovia the county-level celebrations continued as planned on October 15th. IWASH contributed in-kind donations to MOHSW such as cartons of soap and WG, t-shirts and banners at national and county level. A mix of

different communication mediums were used to celebrate the event, including mass media, IPC and a print campaign. The table below provides information on IWASH participation in communication efforts around GHWD celebrations. In addition, PSI spearheaded the media coverage for the official celebration and provided the event with print materials including posters, flyers and brochures. IWASH continues to provide support to GOL at the national and county level in its inter-ministerial efforts around this year's GHWD through in-kind contributions and an airing of a live thirty-minute talk show on the importance of hand washing.

Children Washing Hands on GHWD

Table 8. IWASH Communications Involvement in 2011 GHWD Celebrations

County	Number of WG Bottles
Mass Media	Two jingles were produced and aired on community radio stations to promote hand washing with soap or ashes, and a 30-minute radio talk show was broadcast on a weekly basis for 4 weeks starting on October 15th.
IPC	As agents of change, key stakeholders for this aspect were primary and high school students who were engaged in competitions for drawing, song and drama around the topic of hand washing with soap at critical times. They were also engaged in peer sessions at school level and in their families. The prizes for the schools involved in the competition were hygiene kits, books, cartons of soap and WG, in addition to trophies for the 2011 WASH Champions.
Print Campaign	A print campaign supported all the activities with proper hand washing demonstration posters, brochures and flyers.

7.3 IMPROVED AND SUSTAINED COMMUNITY INVOLVEMENT

The overall WASH strategy for improved and sustained community involvement is to mobilize community leaders, natural leaders, and influential persons within the communities for participation in all WASH activities, from planning to implementation, monitoring, and evaluation of all project activities. Strong emphasis is placed on the CLTS approach for community involvement. IWASH priorities at the community level include assisting and supporting the establishment of sustainable community WASH structures, training natural leaders for active participation in the processes of rolling out the CLTS approach towards ODF communities, and assisting and supporting communities to establish and operate sustainable fund-raising initiatives to operate and maintain WASH facilities.

IWASH has supported the training of members of eighteen Community WASH Committees comprised of ninety members (seventeen females and seventy-three males; five persons per community); training focused on the roles and responsibilities of these committees with regards to the operation and

maintenance of WASH facilities in their respective communities. A total of eighty-seven natural leaders (seventy-eight males and nine females) from twenty-four communities were trained and are now active in mobilizing their respective communities towards attaining ODF.

Natural leaders are community members that have demonstrated interest in the CLTS process during pre-triggering and triggering. They serve as community role models for sanitation and their tasks include monitoring and encouraging communities to achieve ODF status. They maintain and submit CLTS monitoring forms to the CSCs on a regular basis.

In order to link neighboring villages to the larger districts, natural leaders form networks; a cluster coordinator organizes 4-6 neighboring villages while a block coordinator organizes developmental blocks of 10-15 villages. Communities show support for the resulting systemization as it will ensure monitoring and timely measurement of results. Thus far, this approach has been piloted in the twelve triggered communities in Lofa County, but the IWASH team plans to expand the creation of such networks in the next two years.

The chief of Karsor Town, a natural leader, led the effort to create a monitoring network in Lofa County. The first meeting of three communities grew to include all twelve in the area as others saw participating communities moved towards ODF status faster than those not participating. The IWASH CLTS team will try to mimic this network in Bong and Nimba counties.

IWASH also mobilized community members' involvement in orientation of contractors hired by IWASH to construct facilities in their various communities. This includes community-entry meetings, citing of wells, selection of latrine sites, and provision of space for storage of construction materials, provision of local materials such as crushed rocks and sand, and general follow-up of construction activities.

IWASH recognizes the importance of engaging media in spreading awareness of WASH messages and news around Liberia, and thus, the importance of those media professionals covering such stories. Representatives from the WASH R&E Network were invited to attend the DELTA social marketing workshop as a means of contributing to the development of their skills for WASH-related issues, especially concerning the software component of IWASH. The reporters then provided some media coverage of this activity. IWASH has also been supporting and working with the WASH R&E Network in the production and broadcast of "The WASH Hour" radio program that is operating as a medium for the exchange of news, views, ideas, and opinions on activities and happenings towards overall sector reforms and policy improvements in the WASH sector.

7.4 IMPROVED FINANCING AND PUBLIC-PRIVATE PARTNERSHIPS

IWASH encourages greater public sector investment in WASH, creates urban latrines through public-private partnerships and promotes the use of community cash box systems. First, IWASH has worked with other partners to encourage GOL to increase public funding in the sector through budget lines for water and sanitation, specifically in the mid-term budget framework. Second, IWASH is sourcing private sector investment in WASH hardware and software activities, such as operation and management of modern public latrines constructed in Greater Monrovia (refer to Section 5.2.6 for more information on urban latrines). Finally, IWASH mobilizes communities to adopt cashbox systems in order to raise funds that will

be used to repair non-functional pumps. A total of fourteen (six in Bong, three in Lofa, and five in Nimba) communities have now adopted the concept and are operating their cashboxes. Monitoring visits have observed communities using the funds raised to repair their non-functional hand pumps.

A cashbox system is not literally a box of cash. It is a system in which the community collects funds for repairs and maintenance of infrastructure.

8 CROSS-CUTTING ACTIVITIES

8.1 MONITORING & EVALUATION

Quality assurance and robust monitoring systems continue to ensure effectiveness of the program in reaching desired outputs. IWASH M&E efforts both continually improve program performance and have the potential to provide substantial information around implementing major WASH programs. In line with USAID Forward, the IWASH team hopes that program evaluations will help figure out what works and what doesn't, and that such information will be made publicly available so others can learn from this program.

The IWASH M&E team is composed of the M&E Coordinator and all field staff directly involved in program implementation. The field teams are responsible for weekly and monthly reports, facilitated through standard forms. During this reporting period, two major monitoring visits were made to verify data and train field staff in the comprehensive M&E system. In July 2012, Mulbah Reed, L-MEP Health M&E Specialist, and Michael Fogbawa, IWASH M&E Coordinator, conducted a field visit to the IWASH field offices in Bong and Lofa counties to check the comprehensive M&E systems, assess community involvement in IWASH and foster coordination between CHF and PSI. Engagement of government stakeholders in monitoring activities is integral to the IWASH monitoring system as they will ultimately be responsible for such functions. Therefore, county- and district-level government officials are always included in monitoring activities. When activities target a district, those officials are given the project as their own and the local community leaders are put in charge of implementation and reporting any mishaps. The county officials accompany IWASH field staff on monitoring visits, and they have to sign and give approvals before payments are made to contractors for completed hardware projects.

> The participatory nature of our monitoring system that involves all stakeholders has proven crucial to our efforts; the district authorities of Yarwein Mehnsonnoh in Nimba County intervened to fine individuals who connived with contractors to sell building materials intended for a well in Klordin. The town chief was suspended for his involvement in the deal. After this the district authorities assigned the District Development Chairman to continue the monitoring in our absence until the hand dug well was completed.

Progress during this reporting period includes establishment of a comprehensive M&E system, follow-up on the DQA report recommendations, development of tools for the various projects and cost-share, pre-testing media messages, administration of baseline surveys, and internal capacity development activities.

Since the Data Quality Assessment (DQA) Report, conducted by L-MEP in September 2011 and submitted to USAID in November 2011, the IWASH M&E staff has adhered to recommendations. The M&E system has also been improved through further decentralization and training of field staff, improved coordination between the M&E units of CHF and PSI, proper definition of USAID indicators, and the conducting of internal data validation exercises on a regular basis. The final document of the PMP was submitted to USAID and L-MEP in March 2012; this document will be reviewed and amended as necessary and will be rolled out at field level. L-MEP played a key role in assisting IWASH in setting up a comprehensive M&E system.

The M&E team also pushed forward in developing well-tested monitoring tools and protocols to closely monitor activities, and record and report data on various projects. Tools developed for the CLTS project include pre-triggering forms, triggering forms, weekly monitoring forms and monthly summary sheets for the CLTS project; they were developed in collaboration with government actors at the national and county levels. CSCs and IWASH staff prepare weekly and monthly monitoring reports, which are then sent to the IWASH Community Mobilization & Empowerment Coordinator (CMEC). The CMEC cleans, collates and sends the data to the WASH M&E Coordinator, who stores the data in the management information system (MIS) database.

Tools developed for SWIP include community baseline forms and weekly and monthly monitoring sheets. The monthly forms are submitted directly to the M&E Coordinator, while the weekly forms first go through the Program Engineer for cleaning and collating. County monitors work in collaboration with relevant county government officials and community authorities to ensure quality control. Again, this data is stored in the MIS database.

IWASH set up a cost-share tracking system in order to track contributions from community, government and other partners. It uses tools to track community labor, local materials, facilities, land and equipment use, and time community members spent on IWASH activities, converting them to monetary values. IWASH county coordinators are directly responsible for this type of data collection. Cost-share tools developed during this reporting period include a community unskilled labor form, community local materials form, community meeting/ activity attendance form, community time cost form and template Memorandum of Understanding for land, facility and equipment use.

Developments in M&E under the BCC project point to the DELTA workshop, held in February 2012, and in pretesting of radio spots and dramas. PSI uses its DELTA process for creating a marketing plan, discussed in Section 6.2.2. After the workshop, an M&E and research plan was developed to monitor BCC activities, coverage, and quality of coverage for products and services at the community level. Field staff was trained on usage of MIS forms and GPS models to track activities, such as facilities visited and sales made; data is sent to Monrovia for cleaning and submittal to the MIS database.

The PSI M&E Coordinator joined the MOHSW HPD in pre-testing radio spots and dramas in the three IWASH counties. The objective of the radio spot pre-testing was to gather target group feedback on radio spot messages in seven languages (Mandingo, Kissi, Lorma, Bassa, Kpelle, Gio, Mano) in order to determine whether target audience members understood the content and whether they contain any offensive messages. Two radio dramas with similar objectives were also pretested among different groups of target audience members.

The Sanitation Marketing Survey and KAP Survey were completed, analyzed and submitted to USAID. The reports prove useful for program planning as they identify critical baseline thresholds against which to measure results and impact. For more information, refer to Section 4.

IWASH continued to support the capacity development of its M&E team during this reporting period; the team attended a workshop on developing the IWASH social marketing strategy, conducted by PSI from January 24-February 2, 2012. At the end of the workshop, IWASH staff developed the M&E plan with the

attending social marketing specialist. In addition, two sets of GPS handsets were distributed to each county office for staff to record coordinates of project sites. Four IWASH Lofa County staff and the M&E Coordinator attended the L-MEP Managing for Results Training in June 2012 in Voinjama, Lofa County. IWASH M&E staff also benefited from a visit from a Ghanaian expert in PIDS, the web-based system developed by L-MEP.

8.2 GENDER MAINSTREAMING

Liberia struggles to bridge the gap between men and women in many social aspects, evident by its rank of 182 out of 187 countries on the 2011 Gender Inequality Index.[1] Women and girls are severely affected by inequities of access and quality of the health system in addition to the education system, which sees many adolescent girls susceptible to dropping out of school because facilities do not meet their needs for privacy. Similarly, a USAID/ Liberia gender assessment from 2010 concluded that the incidence of poverty exacerbated by low literacy and education and paucity of resources is higher among women than men.[2] Women and girls overwhelmingly bear the burden for water collection and household management of water, food preparation, and care of children. As primary caretakers of household WASH resources, women can speak to the barriers to behavior change and the consequences of poor sanitation and hygiene practices.

President Johnson-Sirleaf has made a strong commitment to gender equity, as has the USG through its mainstreaming of gender in all projects and programs in Liberia. Emphasis on gender equity is laid out in Liberia's GHI Strategy as it is one of GHI's seven core principles, and it is a guiding principle of the National Health and Social Welfare Policy and Plan and the Essential Package of Health Services, a gender-sensitive service delivery package with strong linkages to the community and household.

The IWASH team strives for its programming to reflect the gender equity goals shared by GOL and USG. To that end, the IWASH team identifies and encourages participation of women in community WASH committees and as natural leaders in the CLTS during the triggering process; they visit community women's meetings to inform them of the opportunity to become natural leaders and engage community leaders to facilitate the process. IWASH also builds women's' skills to speak out about WASH issues so they become household and community change agents.

Similarly, the IWASH team is making it easier for women to join the process by keeping the trainings local; team members noticed that women were not showing up to trainings held in the county capitals because of the distance and their inability to leave the home for even a couple of days, so now IWASH is working towards conducting trainings at the local level to promote female participation. In addition, the IWASH team will begin inviting Ministry of Gender & Development representatives to the natural leaders training so they can become involved and talk about gender issues at the community level.

All latrines constructed through the IWASH program are designed with the privacy and security of both males and females in mind. Specifically, in support of Activity 3 under IR1, IWASH is providing WASH facilities in selected schools and clinics. These latrines are both gender-disaggregated and nearby so users

[1] UNDP. Human Development Report. (2011). Retrieved from http://hdr.undp.org/en/media/HDR_2011_EN_Table4.pdf.
[2] USG. (2011). GHI Liberia Strategy. Retrieved at http://www.ghi.gov/documents/organization/175132.pdf.

are not forced to walk out of sight and into potentially dangerous areas. This criterion is outlined in the Latrine Manual and girl-friendly latrines feature in program benchmarks.

9 LESSONS LEARNED

Now past its halfway point, IWASH provides valuable lessons on implementing a program that facilitates accelerated achievement of the MDGs related to water and sanitation, which can be applied specifically to Liberia, and more generally to similar contexts in Western Africa and the developing world. Below is a list of lessons learned that the IWASH team hopes others will consider in delivering effective WASH programs to better serve those in need.

SWIP

Liberia has a tropical climate and as a result adequate underground water is generally available at depths that can be reached through excavation by hand. It is therefore recommended that boreholes be avoided and only be considered where water cannot be reached through manual excavation or where the water quality of the first aquifer is not acceptable for potable use.

SANMARK Projects

One of the products that falls under the sanitation marketing project is the sanplat, a readymade floor slab that can be easily placed over the sewage pit; the sanplat is supposed to simplify the construction of the latrine because cement is typically sold in 50kg bags when the slabs only require a few shovels, and sanplats also need steel, stone gravel, sand and wood, which are often not readily available in remote villages. However, in Liberia, timber is widely available and offers a more practical and popular alternative to the concrete sanplat; it costs nothing. The social marketing strategy for IWASH now excludes sanplat promotion.

CLTS Project

CLTS got off to a slow start in Liberia and still faces challenges. Given its progress through IWASH, the team has put together a case study, complete with lessons learned, which can be found in Annex 12.4. Generally, engaging community leadership and sub-national government officials early on, and integrating CLTS into the range of services already present, has led to more sustainable results, as have the following: regular monitoring, creation of institutional structures like a natural leaders monitoring network, and motivation to go beyond ODF. In addition, CLTS has the potential to drive a WASH private sector in the counties, districts and communities as the process of simultaneous triggering in so many communities leads to a huge demand for construction material and technical experts.

Cross-Cutting Activities

The M&E team has found that, to build a strong M&E system, both local and international expertise should be harnessed. When this system is brought to field level, simple tools and regular training can aid in implementation and adaptation. Also, it is crucial to engage government officials and the community to ensure ownership.

10 CHALLENGES AND CONSTRAINTS

Difficult Road Conditions: The Main Road Between Bong and Nimba counties

The IWASH team recognizes the inherent complexity in operating in a country recovering from a devastating civil war, and that all major donor-funded programs face challenges and constraints, whether anticipated or unforeseen. This particular program has endured difficulties with previous leadership and partners, a realignment in geographic scope and shift in emphasis towards IR3, and the Ivorian refugee influx along the border due to neighboring instability. Also, coordination between CHF and PSI was, at times, not very effective. Below is a comprehensive list of additional challenges and constraints that IWASH faces. It is less daunting than in previous reports, and the IWASH team is confident in its ability to overcome them in the following years as it remains responsive and adaptable to evolving conditions.

WG POU Water Treatment Project

Meeting WG sales and distribution targets has been a challenge due to a variety of factors, the most prevalent being that WG is expensive and difficult to transport out to rural sales points. Currently WG is transported by PSI in small quantities due to limited capacity of its vehicle and the frequency of trips. Another factor is that the demand for the blue bottle WG is low because there are several organizations that are freely distributing white bottle WG, which reduces consumer incentive to buy when they believe eventually they will receive it for free. Also, WG promotion has not been well enough integrated into CLTS so that safe water becomes a rung on the sanitation improvement ladder.

SWIP

MOE currently does not have the capacity, resources or systems in place to manage and coordinate the repair and maintenance of latrines and water wells at schools in the rural areas. Due to lack of funds and many other pressing issues, WASH facilities at schools are not a priority and GOL does not have plans to assume responsibility for the installation, proper utilization, maintenance and repair of these facilities in the foreseeable future. It is up to school management and PTAs to maintain latrines and water wells at schools in the rural areas. Through BCC, IWASH has been training peer educators and advocating the importance of proper use and regular maintenance of facilities to management at schools where IWASH has constructed latrines and wells. Because the maintenance of facilities requires funds, it is doubtful that proper maintenance will continue once IWASH is complete. There is a real threat that IWASH-constructed facilities at schools will fall into a state disrepair once the program has been finished.

IWASH has encountered difficulty in securing contractors that provide quality construction of boreholes; in speaking with other partners in the sector, this constraint is not unique to IWASH. During the process to complete ten boreholes in 2011, half produced either turbid or insufficient water. Even when instructed to fix the problems, the contractors failed to do so. Retention monies were retained and their contracts were

ultimately cancelled. IWASH requested recommendations from other partners but continue to face challenges in finding contractors that can supply quality work in this field.

CLTS Project

At the national level, the NCU is newly-formed (established around May 2011) and is not yet sufficiently organized to be a strong, championing body for CLTS. The national operating procedures for CLTS also have yet to be solidified, leading to differences between how partners carry out the process. Counties suffer from weak CSCs, impeding progress around the ODF process, and oftentimes weak coordination around the WASH sector; Nimba County in particular suffers from poor coordination such that the CHT did not even take part in the CLTS natural leaders and facilitators' training that was conducted by its own NCU. In addition, CLTS activities are not included in job descriptions for key government staff, such as the EHTs. Finally, IWASH continues to battle against the predilection for hand-outs, especially in Nimba County where similar efforts were provided free-of-charge because of the refugee influx.

BCC Project

PSI works with the MOHSW HPD on all health messages produced for IWASH. Some delays in the rollout of the messages were due to a disagreement between PSI and MOHSW on how pre-testing should be done. The ministry felt that the pre-testing needed to be done at county level mainly because this is how it has been done over the years. PSI felt that pre-testing can be done in Monrovia, with audience members who have recently arrived from the counties and speak the relevant languages, while producing the same desired result. In addition, the HPD proposed a three-team, nine-day format that would have cost IWASH nearly $10,000. A lower-cost compromise was eventually reached, but the disagreement caused a significant delay in the rollout. In an effort to avoid costly and ineffectual pre-testing in the future, PSI has proposed a capacity development training with the ministry to introduce more sophisticated pre-testing concepts and practices that will yield more return on investment. Rev. Sumo, Director of the HPD, has expressed enthusiasm about the proposed training.

Cross-Cutting Activities

The poor road infrastructure continues to inhibit field monitoring sites and field staff is having challenges in effectively using the new, comprehensive monitoring system. Government officials expect per diems to participate in field monitoring visits; since we do not offer per diems, unlike other NGOs, they often will not assist our field staff.

11 THE WAY FORWARD

As mentioned in the Executive Summary, IWASH has changed gears to focus on behavior change through key projects and initiatives – WG promotion, CLTS, BCC, capacity development and unification around SANMARK. IWASH will also keep its commitment to setting up three urban pilot latrines in Monrovia. The New Georgia latrine pilot was the first attempt at a publicly-owned, privately-managed latrine. Equipped with the lessons learned from that process, the IWASH team will further improve the management and operations of the New Georgia Latrine by working with Libra Sanitation, and will commence with the construction of two additional such facilities in greater Monrovia.

There remains the need to target urban communities in Bong, Lofa and Nimba for WG usage. However, campaigns that succeed in generating WG sales in urban communities will not be successful in the rural project communities. With the new focus on CLTS and the limited number of PSI staff on the field, there is an opportunity to use CLTS to promote all IWASH target behaviors in the project communities. Budget for training and creative incentives can be obtained by reducing the budget allocated to print materials. With the orientation and focus on CLTS implemented in rural and small communities to ensure success of this approach, there is less need to invest in expensive print campaigns as was done in the past. Budget can then be used for community-based interventions.

White bottle WG has been one of the underlying factors hampering the sale of blue bottle WG. Several organizations have distributed WG in mass quantities due to the Ivorian refugee crisis and the cholera emergency response. Although it is necessary to provide WG for free to prevent or respond to emergencies, a voucher system can be developed using the blue bottles. These would be distributed through commercial channels so that the profit incentive is retained for wholesalers and retailers, and even enhanced through the distribution network. WG will hold perceived value, more so than if simply handed out by organizations.

The IWASH team prides itself on its success in CLTS and intends on building on experiences and lessons learned to trigger 150 more communities by September 2013, with the hopes of 100 achieving ODF status, in support of IR2. The CLTS process will continue without major changes, and there will be an emphasis on strengthening the NCU and increasing its role in leading CLTS. To address the demand for construction materials for toilets, IWASH will also explore the possibility of creating self-help groups that link up with WASH products and services suppliers to supplement their income by providing low-cost options at community level.

The synergies between CLTS and BCC offer opportunity for coordination between the two projects. By using BCC strategies CLTS can be marketed as a movement to make it something that is desired and actively sought by community members. Coupling CLTS with BCC will give it more leverage in the communities because it will be something that communities aspire to and are inspired to do. It could also make triggering easier because communities will have already become acclimated to the idea CLTS.

The emphasis on IR3 will continue to improve the enabling environment at all government levels through the four focus areas (see section 3). The Semi-Annual Report (October 2011-March 2012) mentions an organizational capacity assessment to build on the KAP Survey and utilize CHF's Organizational Capacity

Review Toolkit to assess the states of key institutions. CHF began the process of organizing a capacity assessment in June 2012, but halted when the IWASH team became aware of a similar effort of the Capacity Development Task Force, a committee set up by the NWSHPC. An independent consultant was brought in to conduct a nationwide WASH capacity development assessment and develop a plan to fill the gaps. CHF has been very involved in the broader assessment and has decided to wait until the next reporting period to commence its own assessment so as to avoid duplication of efforts; the assessment conducted by CHF will hone in on key IWASH program activities but remain narrow in breadth.

In the next year, the M&E team plans to set up a Tracker database and develop a narrative reporting template that would be delivered by monitors to county coordinators before being sent to Monrovia. The team will also facilitate the set-up of a M&E system for community, clinic and school water sanitation facilities and conduct GIS training for field staff.

The IWASH team is proud of the progress made during this reporting period, as it has proven the most successful and promising year of the program thus far. It intends to keep this momentum rolling and looks forward to the final midterm evaluation report for valuable observations and suggestions.

12 APPENDIX

12.1 TABLES OF PROGRAM ACTIVITIES PER BENEFICIARY COMMUNITY

SUMMARY OF IWASH INTERVENTIONS TO DATE [SEP 12] - COMMUNITIES, SCHOOLS AND CLINICS													
County	Community	School	Clinic	Activities									
				New H/Dug Well	Bore Hole	water tower	solar system and pump	well[/bore hole Rehab	Latrines	CLTS	BCC		
											town	school	clinic
Bong	39	8	4	9	3	0	0	0	4	23	26	6	4
Lofa	35	6	4	9	4	0	0	0	8	12	28	7	6
Nimba	46	5	4	9	3	0	0	48	5	13	19	5	4
River Gee	3	0	0	0	0	0	0	7	0	0	0	0	0
Total	123	19	12	27	10	0	0	55	17	48	73	18	14

IWASH INTERVENTIONS TO DATE [SEP 12] - COMMUNITIES, SCHOOLS AND CLINICS IN BONG COUNTY													
District	Community	School	Clinic	Activities									
1				New H/Dug Well	Bore Hole	water tower	solar system and pump	well//bore hole Rehab	Latrines	CLTS	BCC		
											town	school	clinic
Kokoya	Gbecohn Town	Dolobai Public School		1					1			BCC/sc	
Suakoko	James Flomo Town			1						CLTS/ODF	BCC		
Jorquelleh	Banama			1						CLTS/ODF	BCC		
Jorquelleh	Gbarnga (Bassa town)			1									
Jorquelleh	Kpai	Kpai Public School		1					1			BCC/sc	
Suakoko	Gormenyeanah			1						CLTS/ODF	BCC		
Jorquelleh	Gbanyea	Gbanyea Pub School		1						CLTS	BCC		
Jorquelleh	Gbarnga	J.S. Clarke Public School		1									
Jorquelleh	Brooklyn	Dorothy Cooper Sch		1								BCC/sc	
Zota	Gbalatua		Gbalatua Clinic		1								BCC/cl
Salala	Tokpaipolu		Tokpaipolu Clinic		1								BCC/cl

ACTIVITIES COMPLETED

IWASH INTERVENTIONS TO DATE [SEP 12] - COMMUNITIES, SCHOOLS AND CLINICS IN BONG COUNTY													
District	Community	School	Clinic	Activities									
2				New H/Dug Well	Bore Hole	water tower	solar system and pump	well/bore hole Rehab	Latrines	CLTS	BCC		
											town	school	Clinic
Panta-Kpai	Yila		Yila Clinic		1								BCC/cl
Suakoko	Suakoko	Bethany Lutheran Sch.							1			BCC/sc	
Kokoya	Gbarlorkpala	Sayeyawoi Public Sch.							1			BCC/sc	
Jorquelleh	Dahn									CLTS/ODF	BCC		
Jorquelleh	Douyea									CLTS/ODF	BCC		
Jorquelleh	Gbarsue									CLTS/ODF	BCC		
Kokoya	Geayea									CLTS/ODF	BCC		
Jorquelleh	Henry Kpangbai									CLTS/ODF	BCC		
Jorquelleh	Kanagai									CLTS/ODF	BCC		
Jorquelleh	Kpoyea									CLTS/ODF	BCC		
Jorquelleh	Sengbah									CLTS/ODF	BCC		
Jorquelleh	Kpeketa									CLTS/ODF			
Jorquelleh	Gboikpallah Town									CLTS	BCC		
Jorquelleh	Bucket									CLTS	BCC		
Suakoko	Fine Boy									CLTS	BCC		
Suakoko	Gaita									CLTS	BCC		
Suakoko	Gwen									CLTS	BCC		
Jorquelleh	Kolleh									CLTS	BCC		
Jorquelleh	Moita									CLTS	BCC		
Kokoya	Moses Quannah									CLTS	BCC		
Jorquelleh	Sgt Flomo									CLTS	BCC		
Suakoko	Dayan's Town									CLTS	BCC		
Zota	Feetua										BCC		
?	Duah Town										BCC		
Jorquelleh	LPMC Road										BCC		
Sanoyea	Gbonota		Gbonota Clinic										BCC/cl
Suakoko	Yarwarlee	Yarwarlee School									BCC	BCC/sc	
	39			9	3	0	0	0	4	23	26	6	4

ACTIVITIES COMPLETED

IWASH INTERVENTIONS TO DATE [SEP 12] - COMMUNITIES, SCHOOLS AND CLINICS IN LOFA COUNTY													
District	Community	School	Clinic	Activities									
1				New H/Dug Well	Bore Hole	water tower	solar system and pump	well/bore hole Rehab	Latrines	CLTS	BCC		
											town	school	clinic
Voinjama	Barkedu Town			1							BCC	BCC/sc	BCC/cl
Voinjama	Karza			1							BCC		
Voinjama	Sarkonedou			1							BCC	BCC/sc	BCC/cl
Voinjama	Tennebu			1					1		BCC	BCC/sc	
Kolahun	Hassagolowan			1							BCC		
Kolahun	Koikelelahun			1							BCC		
Kolahun	Kpangihambai			1					1		BCC		
Kolahun	Massambolahun			1							BCC		
Kolahun	Ndambu			1							BCC		
Salayea	Gbanway		Gbanway		1						BCC		BCC/cl
Zorzor	Konia		Konia HC		1						BCC		BCC/cl
Zorzor	Zorzor	Zorzor Central High.Sch.			1							BCC/sc	
Voinjama	Bazagizia		Bazagizia		1								BCC/cl
Kolahun	Voinjama	SDA Public School							1				
Voinjama	Yandisu	Yandisu Public Sch.							1		BCC	BCC/sc	
Voinjama	Kolliemai	Kolliemai Pub. Sch							1		BCC	BCC/sc	
Kolahun	Popalahun	Jusu Dunor Elementary & Junior H							1				
Voinjama	Voinjama								1		BCC		
Voinjama	Konadu								1		BCC		
Voinjama	Vavamai									CLTS/ODF	BCC		
Voinjama	Wewelor									CLTS/ODF	BCC		
Voinjama	Dayans Town									CLTS/ODF	BCC		
Voinjama	Gallamai									CLTS/ODF	BCC		
Voinjama	Gogbewollie									CLTS/ODF	BCC		
Voinjama	Karsor									CLTS/ODF			

ACTIVITIES COMPLETED

IWASH INTERVENTIONS TO DATE [SEP 12] - COMMUNITIES, SCHOOLS AND CLINICS IN LOFA COUNTY													
District	Community	School	Clinic	Activities									
2				New H/Dug Well	Bore Hole	water tower	solar system and pump	well/bore hole Rehab	Latrines	CLTS	BCC		
											town	school	clinic
Voinjama	Korvah									CLTS/ODF	BCC		
Voinjama	Kozumai									CLTS/ODF	BCC		
Voinjama	Mumusu									CLTS/ODF	BCC		
Voinjama	Zozomai									CLTS/ODF	BCC		
Voinjama	Maimai									CLTS	BCC		
Kolahun	Kolbah City										BCC		
Voinjama	John Sumo										BCC		
Voinjama	Farfinidu									CLTS/ODF	BCC		
Zorzor	Antionniet School	Antionniet School										BCC/sc	
Voinjama	Tellewoyan Hospital		Tellewoyan Hospital										BCC/cl
	35	6	4	9	4	0	0	0	8	12	28	7	6

ACTIVITIES COMPLETED

IWASH INTERVENTIONS TO DATE [SEP 12] - COMMUNITIES, SCHOOLS AND CLINICS IN NIMBA COUNTY														
District	Community	School	Clinic	Activities										
1				New H/Dug Well	Bore Hole	water tower	solar system and pump	well/bore hole Rehab	Latrines	CLTS	BCC			
											town	school	clinic	
Sanniquellie Mah	Ganta	Rainbow School		1					1			BCC/sc		
Sanniquellie Mah	Ganta (Valley Comm.)			1							BCC			
Sanniquellie Mah	Under Ground (Sanniq.)			1										
Sanniquellie Mah	Bleevalley	Blevalley school		1					1			BCC/sc		
Sanniquellie Mah	Christian Community			1										
Yarwein Mehnsonoh	Klordin			1							BCC			
Sanniquellie Mah	Nyanpa			1							BCC			
Tappita	Garrage			1						CLTS	BCC			
Gbellegeh	Vayenglay			1					1					
Sacleapea Mah	Banla		Banla		1								BCC/cl	
Sacleapea Mah	Kpaytuo		Kpaytuo		1								BCC/cl	
Sacleapea Mah	Zorgowee		Zorgowe Clinic		1								BCC/cl	
Sanniquellie Mah	Ganta	J.W. Pearson Sch.						1				BCC/sc		
Tappita	Tappita	Tappi Memorial Sch						2	1			BCC/sc		
Gbellegeh	Kpairplay							1				BCC/sc		
Gbellegeh	Kissiplay							2			BCC			
Zoegeh	Gbanwea							3						
Zoegeh	Gbarlorplay							2						
Zoegeh	Coffeglay							2						
Zoegeh	Tanweay							2						
Zoegeh	Buutuo							9						
Zoegeh	Buehlay							1						
Zoegeh	Dinplay							2						
Kparblee	Dubuzon							1						
Kparblee	New Yourpea							4						

ACTIVITIES COMPLETED

IWASH INTERVENTIONS TO DATE [SEP 12] - COMMUNITIES, SCHOOLS AND CLINICS IN NIMBA COUNTY													
District	Community	School	Clinic	Activities									
2				New H/Dug Well	Bore Hole	water tower	solar system and pump	well/bore hole Rehab	Latrines	CLTS	BCC		
											town	school	clinic
Kparblee	Douplay							2					
Gbellegeh	Loguatuo							2					
Gbellegeh	Kpair Town							5					
Zoegeh	Teahplayboulery							1					
Gbellegeh	Beoloutou							6					
Zoegeh	Bahn	school							1				
Sanniquellie mah	Lindin									CLTS/odf	BCC		
Sanniquellie mah	Wougmue									CLTS/odf	BCC		
Sanniquellie Mah	Makinto									CLTS/odf	BCC		
Sacleapea Mah	Blapa									CLTS	BCC		
Sanniqullie mah	Dolopa									CLTS	BCC		
Sanniquellie mah	Gboayella									CLTS	BCC		
Zoegeh	Kougar									CLTS	BCC		
Sacleapea Mah	Kpowin									CLTS	BCC		
Sanniquellie Mah	Lengein									CLTS	BCC		
Sanniquellie mah	Tuluyiwine									CLTS	BCC		
Sanniquellie Mah	Whmonynor									CLTS	BCC		
Sanniquellie mah	Yehbo									CLTS	BCC		
Sanniquellie Mah	KL		KL Foundation										BCC/cl
Yarwein Mehnsonoh	Voipa										BCC		
Sacleapea Mah	Blohn										BCC		
	46	5	4	9	3	0	0	48	5	13	19	5	4

ACTIVITIES COMPLETED

IWASH INTERVENTIONS TO DATE [SEP 12] - COMMUNITIES, SCHOOLS AND CLINICS IN RIVER GEE COUNTY														
District	Community	School	Clinic	Activities										
1				New H/Dug Well	Bore Hole	water tower	solar system and pump	well/bore hole Rehab	Latrines	CLTS	BCC			
											town	school	clinic	
?	?							2						
?	?							2						
?	?							3						
	3	0	0	0	0	0	0	7	0	0	0	0	0	

ACTIVITIES COMPLETED

12.2 LINK BETWEEN INTENDED RESULTS AND PROJECTS AND INITIATIVES

INTENDED RESULT ONE – PROJECTS, INITIATIVES AND SURVEYS UTILIZED				
Activities and Products			Projects and Initiatives	
			Primary	Secondary
Activity 1 Improved access to POU water treatment product	- Prod. 1	POU water treatment	WG©	TRaC survey Qualitative Gap survey
Activity 2 Increase access to and reach of market forces to support increased supply of WASH products at the community level	- Prod. 2	Hand dug wells	SWIP	
	- Prod. 3	Solar Water Pumps	SWIP	
	- Prod. 4	Rural Community Latrines	SWIP	
	- Prod. 5	Hand Pump Spare Parts	SANMARK	Market Survey
	- Prod. 6	H/hold hygiene improvement products	SANMARK	Market Survey
	- Prod. 7	Hand Washing	SANMARK	Market Survey
	- Prod. 8	Household Latrines	CLTS	Latrine Manual
Activity 3 WASH-friendly schools and clinics			SWIP SANMARK	
Activity 4 Pilot publicly owned, privately managed, public-ablution facilities in three urban centers	- Prod. 9	Urban Public Latrines	SWIP	

INTENDED RESULT TWO – PROJECTS, INITIATIVES AND SURVEYS UTILIZED				
Activities and Products			Projects and Initiatives	
			Primary	Secondary
To Build Household and Community Demand for WASH Products				
Activity 1 Participatory community action through the CLTS process			CLTS	TRaC Qualitative Gap survey
Activity 2 Develop a latrine manual			CLTS	Latrine manual
Activity 3 Build community and household demand, through Social Marketing, for WASH product usage and WASH infrastructure, ownership, management, and maintenance	- Prod. 1	WG POU Water Treatment	BCC	TRaC
	- Prod. 2	Hand Dug Wells	BCC	
	- Prod. 3	Solar Water Pumps	SWIP	
	- Prod. 4	Rural Community Latrines	BCC	
	- Prod. 5	Hand Pump Spare Parts	SANMARK	Market Survey
	- Prod. 6	H/hold Hygiene Improvement Products	BCC	

- Prod. 7	Hand Washing	BCC	
- Prod. 8	Household Latrines	CLTS; BCC	
- Prod. 9	Urban Public Latrines	SWIP	
To apply BCC at the National and Community Level			
Activity 1 Undertake research in behavior determinates around sanitation and hygiene practices (baseline study)		BCC	TRaC Qualitative GAP survey
Activity 2 Develop targeted BCC materials and disseminate messages and materials through innovative communication mechanisms		BCC	
Activity 3 Work with youth groups, school bodies and PTAs to implement hygiene improvement activities for youth		BCC	
Activity 4 Promote water and sanitation practices through community health clinics		BCC	
Activity 5 Build skills of community leaders to speak out on sanitation and water issues		BCC	

INTENDED RESULT THREE – PROJECTS, INITIATIVES AND SURVEYS UTILIZED		
Key Enabling Environment Focus Areas	Projects and initiatives	
	Primary	Secondary
National sector reforms/policy improvement	Capacity building	KAP survey Institutional Capacity survey Latrine manual
Improved coordination	Capacity building	KAP survey
Improved and sustained community involvement	Capacity building BCC CLTS	TRaC survey Qualitative Gap SANMARK survey Latrine manual
Improved financing and public-private partnerships	SWIP SANMARK	Sanitation marketing survey

12.3 NEW GEORGIA PUBLIC LATRINE PILOT CASE STUDY

Models for Private Management and Operation of Public Latrines: New Georgia Latrine Pilot

Introduction

The New Georgia improved public latrine is a pilot project that is publicly-owned and privately managed. Capital investment funds were provided by USAID, Libra and Chevron and the land was donated by the community. It was handed to the community through the district commissioner's office but is operated and managed by Libra, a private sanitation firm.

A contract was signed with the contractor in November 2010 and, after some delays in securing land from the community, construction began in March 2011. Further delays due to negligence of the contractor and change in design pushed completion until December 2011. It was handed to the Commissioner's Office on December 22, 2011 and opened for business in February 2012.

The toilet is separated into two sections, male and female. The male section includes 4 toilets, 2 showers, 2 urinals and 2 wash hand basins; the female section includes 5 toilets, 2 showers and 2 wash hand basins. Libra employs 2 care takers for the New Georgia Latrine, 1 male and 1 female. Costs range by the 3 services offered: USD$ 0.07 or 5LD to urinate; USD$ 0.14 or 10LD to defecate; USD$ 0.20 or 15LD to bathe.

Key Findings

Libra recently compiled data collected through monitoring visits, personal interviews with key informants and a form developed to track daily use. Data was collected from the middle of February 2012 through the end of June 2012. Key findings are

- A total of 6,561 total uses were recorded over 5.5 months;
- 82% of the users were female; 18% of users were male;
- 50% of usage was for female urination, 32% for female defecation, 13% for male defecation and 5% for male urination; the number of uses for bathing was insignificant; and
- Usage was slow at the start, increased sharply for the next 3 months, but then started declining; the care taker attributed the decline to marketers moving to other markets.

The following observations were recorded on the most recent visit: some of the faucets are leaking; the septic tank overflows in the rainy season; the wash basins are peeling off the walls; and the generator that should serve the submersible pump was stolen and has not been replaced.

Following the first six months of operation, IWASH hired an independent monitor to record data for four days. Interestingly, though females account for the majority of visits, usage is now evening out with males ; 57% of users were female and 43%, male. Average daily use had increased from 50 users/ day to 68 users/ day. The independent monitor recorded age range – 33% of users were below 18 years of age; 63% were between 18 and 50 years of age; .04% was 50 or above – and reported that 70% of users were from the nearby market.

Issue

The New Georgia Latrine is underutilized in that its usage is not reaching capacity, nor is it hitting projected targets; further, usage seems to be declining. Libra is not making a profit through operating and managing the latrine through the current model; in fact, Libra has lost nearly 36,000LD on the New Georgia Latrine since February 2012. This concept note lays out the New Georgia Latrine finances and 3 alternative management and operations models for consideration to increase revenue.

Accounting

Libra's initial investment in the New Georgia Latrine was USD$ 6,075 (see Table 1). Projected revenue was forecast at USD$ 2,919 for 6 months or USD$ 487/ month. Projected expenses were forecast at USD$ 4,273 for 6 months or USD$ 712/ month (see Table 2). These initial projections assume that Libra would not make a profit on the latrine in the first 6 months.

Initial projections have not been realized. Actual revenue over 6 months totaled USD$ 703 averaging USD$ 117/ month. Actual expenses over 6 months totaled USD$ 1,131, averaging USD$ 189/ month. Actual revenue is a mere 24% of the projection (see Table 3). Though actual expenses are only 26% of the projection, they still exceed revenue. Not including initial investment, Libra has operated at a loss of USD$ 428 for the 6 months.

Table 1. Libra's Initial Investment in New Georgia Latrine Pilot

INITIAL INVESTMENT			
		US Dollar (USD)	Liberian Dollar (LD)
Equipment			
	Well Construction	2,800	207,200
	Generator	1,500	111,000
	Submersible Pump	800	59,200
Land			
	Land (1/4-lot)	600	44,400
	Documentation for Land	375	27,750
		6,075	449,550

Table 2. Libra's Initial Projection of Revenues & Expenses for New Georgia Latrine Pilot for 6 Months

INITIAL PROJECTION -TOTAL FOR 6 MONTHS					
Revenue	USD	LD	Expense	USD	LD
Services Rendered	2,919	216,000	Desludging	2,400	177,600
			Caretaker Salaries	754	55,800
			Maintenance	21	1,576
			Supplies	198	14,680
			Generator Operation & Maintenance	900	66,600
	2,919	216,000		4,273	316,256

Table 3. Libra's Actual Revenues & Expenses for New Georgia Latrine Pilot for 6 Months

ACTUAL -TOTAL FOR 6 MONTHS					
Revenue	USD	LD	Expense	USD	LD
Services Rendered	703	51,990	Desludging	300	22,200
			Caretaker Salaries	612	45,300
			Maintenance	21	1,576
			Supplies	198	14,680
			Generator Operation & Maintenance	0	0
	703	51,990		1,131	83,756

Management & Operations Model Options

Status Quo: Caretakers are employees of Libra, earning a salary. They are responsible for collecting the user fees which are then handed over in full to Libra.

Alternative A: Caretakers are employees of Libra, earning a salary. They are responsible for collecting user fees, which Libra and the caretakers split.

Alternative B: Caretakers are employees of Libra, earning a salary. They are responsible for collecting the user fees, of which $X is handed over to Libra each week; any amount collected beyond $X, the caretakers are allowed to keep.

Alternative C: Libra sub leases the latrine to a community member or organization for a monthly rent. Caretakers are either entrepreneurs or employees of a community organization, but they are not employees of Libra. Caretakers are responsible for collecting the funds and paying monthly rent.

Decision Matrix

	Simplicity of Model (.1)	Revenue Potential (.25)	Revenue Steadiness (.3)	Likelihood of Cleanliness (.25)	Likelihood of Corruption (.1)	Total (weighted/ unweighted):
Status Quo	3	1	1	1	1	1.2 / 7
Alternative A	2	2	1	2	2	1.7 / 9
Alternative B	2	3	2	3	3	2.6 / 13
Alternative C	1	3	3	3	4	2.7 / 14

A decision matrix allows for informed decision-making when selecting one option from a list. The criteria selected in the top row reflect the most important considerations for the decision-maker; the weights assigned to each criterion show the relative importance of each. It is a useful tool because it systematizes the process of decision-making, forcing the user to take a moment to identify his or her top considerations before making a selection.

1 = Unfavorable; 2 = Average; 3 = Favorable

The weighted total shows that the most favorable option is Alternative C, though not by too wide a margin. The unweighted total also shows that Alternative C is the best option.

Other Variables: Hours of Operation; Number of Caretakers; Cost-Sharing; Coupon System

The fee collection mechanism is the most important factor in creating more revenue for the New Georgia Latrine. In addition, though, there are at least four other variables to consider which can be tweaked for even further revenue maximization.

Hours of Operation: Initially, the New Georgia Latrine was open by 7am and stayed open until about 7pm. The caretakers noticed low usage rates between 7am and 8am, and from 5:30pm onwards. Therefore, the caretakers scaled back hours worked to 8 or 8:30am (latest) to about 5:30pm, which correlate with the flow of traffic at the market. Since Libra pays the caretakers on a monthly, not hourly, basis, it is in Libra's best interest financially to continue the extended hours. However, this may upset the caretakers because they will be working longer days for the same amount of money and they may feel as though the data they collect is not being used.

However, it may be worth switching back to the extended hours if Libra moves away from the status quo; the status quo does not offer much incentive for the caretaker to work a longer day since additional revenue from longer hours does not benefit him or her financially. (There is also the possibility that there was significant traffic from 7-8am and from 5:30pm onwards, but it was not in his or her benefit to record accurate data since it means longer days without more pay. It should be noted that, during periodic surprise visits to the New Georgia Latrine, Libra employees found that the caretakers were not recording each use. Libra also knows that some funds are pocketed. So, even if the data underestimates the amount of traffic, one can assume it is not by a significant degree since the funds collected during the off-peak hours are not substantial enough to incentivize the caretakers to stay and collect fees, assuming some would be pocketed.) If Libra chooses Alternative A, B or C, the caretakers will likely be incentivized to attract more business in the off-peak hours, possibly through keeping the facilities cleaner or promoting usage in the community.

From a public health standpoint, it is worth considering keeping the latrines open longer. Behavior change is a slow process and many Liberians are still becoming accustomed to the idea of using latrines for urination, defecation and bathing. The WASH sector is still in the early stages of changing people's behavior so the latrine hours should be made as convenient (i.e. long, in this case) as possible. It could also be assumed that those who are willing to try the machines but are experiencing shyness or embarrassment may appreciate the less-crowded hours in the early morning or early evening.

Also, the latrine is currently closed on Sundays. Many Liberians attend church services on Sunday, so there is potential for heavy traffic on Sundays as community members may want to wash up before service. The latrine has not been open on Sundays before, so there is no available data to examine, but it may be worth piloting.

Number of Caretakers: Libra currently employs two caretakers at the New Georgia Latrine, one male (supervisor) and one female. The latrine is open for 9 hours a day, 6 days a week, for a total of 54 hours a week (or 63 if it were to open on Sundays). Given that a standard workday in Liberia is 8 hours and the maximum working days per week is 6,[3] it may be beneficial to hire additional caretakers who can work shifts. This way, no caretaker will be working overtime and operating hours can be extended if needed. One additional male and one additional female caretaker would be preferable since there should be a male and female caretaker on duty at all times.

Cost-Sharing: Libra does not currently employ a cost-share structure with caretakers because caretakers are salaried employees. If Libra chooses Alternative C, cost-sharing may be an option; percentages would need to be negotiated.

Cost-sharing could be beneficial in that the caretakers would have a vested interest in keeping good care of the supplies and efficiently operating the generator. However, there is the possibility that the caretaker would be less inclined to report the need for supplies, service and repairs to save money; latrines are somewhat new to Liberia so users may not have adequate experience to be able to compare latrines and demand higher quality. To overcome this challenge, Libra could include supplies in the rent payment and deliver them as needed, and also conduct routine quality checks.

Coupon System: Libra originally employed a coupon system in which users would pay for 2 uses upfront and would be given 2 coupons. Since the caretaker did not mark or collect the coupons upon use, many people visited the latrines on the same coupon. Assuming the caretaker would be able to mark coupons as "used," it may be beneficial to reinstate the coupon system if challenges can be overcome.

The advantages of using a coupon system include the following: increased number of visits as users would not need to have cash on them at each visit; less opportunity for caretakers to pocket funds due to less cash on hand and a systematic process that would enhance record-keeping; data would be more trustworthy given enhanced record-keeping necessary for coupon system; the coupon system could increase demand by offering discounts in the form of a frequent buyer system – e.g. "buy 9, get 1 free."

The most pressing challenge for a coupon system is forgery; people may copy the design and produce fake coupons. This could be overcome by demarcating originals with laminate, a stamp or signature. However, such additional features may increase the costs for the supplier, so much that it would not be worth it. The second important challenge is that many people only have enough cash for one day's expenses at a time. If the coupon system were to work, users would need to have enough cash on hand for multiple future uses. Finally, prices vary by service. Instead of buying coupon by service, it would be more useful to buy coupons

[3] IFC and World Bank. (June 2011). Employing Workers in Liberia. *Doing Business: Measuring Business Regulators*. Retrieved from http://www.doingbusiness.org/data/exploreeconomies/liberia/employing-workers/.

by price, and probably by the lowest common denominator of 5LD. This way, caretakers will not have to deal with a difference between coupon value and service rendered.

It is worth noting that Libra has found most users to be vendors of the market. Libra could explore ways to use this to its advantage. One way would be to offer vendors some reward for recommending others (most likely market shoppers) to the latrine. They could rack up points for each new user that they recommended that actually used the latrine. However, this may be too complicated a system for now. Another possibility is to reward vendors for their continued use by offering a 2-for-1 on the weekends or during off-peak times. The challenge here, as with the preceding suggestion, lies in verifying who is a vendor.

12.4 CLTS IMPLEMENTATION TARGETS AND ACHIEVEMENT OF ODF COMMUNITIES

Activities	Targets and Achievements per County					
	Bong		Lofa		Nimba	
	Target	Achieved	Target	Achieved	Target	Achieved
CLTS consultative meetings and formation of County CLTS steering Committees	1 meeting	1 meeting	1 meeting	1 meeting	1 meeting	1 meeting
County CLTS steering committee meeting (once a month)	7 meetings	7 meetings	7meetings	7meetings	7 meetings	7 meetings
County CLTS steering community monitoring (4 times a month)	24 visits	24 visits	24 visits	24 visits	24 visits	18 visits
County Level CLTS facilitators training	1 workshop	1 workshop	1 workshop	1 workshop	1 workshop	1 workshop
Natural leaders trained	42 leaders	40 leaders	24 leaders	24 leaders	24 leaders	23 leaders
Communities Triggered	15 comm.	22 comm.	15 comm.	12 comm.	15 comm.	13 comm.
Community ODF plan develop	22 comm.	22 comm.	12 comm.	12 comm.	12 comm.	13 comm.
Latrine construction completed in ODF communities	53 units	59 units	87 units	116 units	12 units	11 units
People in ODF communities that gained access to sanitation facilities		1633 pers.		2604 pers.		698 pers.
Latrine construction completed in non-ODF CLTS communities	62 units	20 units	10 units	25 units	46 units	16 units
People in non-ODF CLTS communities that gained access to sanitation facilities		370 pers.		680 pers.		364 pers.
Garbage pit established in CLTS communities	0 pits	43 pits	0 pits	26 pits	0 pits	10 pits
Hand washing facilities established in CLTS communities	0 facility	54 facilities	0 facilities	84 facilities	0 facilities	15 facilities
Dish rack built in CLTS communities	0 racks	160 racks	0 racks	162 racks	0 racks	47 racks
Cloths line set up in CLTS communities	0 lines	174 lines	0 lines	162 lines	0 lines	47 lines
Communities achieve CLTS status	15	12	10	11	10	3
Self-triggered communities	0	1	0	0	0	0

12.5 CLTS CASE STUDY

Case Study: Implementing Community –Led Total Sanitation (CLTS) Suakoko, Bong County

Liberia is a coastal country in West Africa, bordering Sierra Leone, Guinea and Cote d'Ivoire. At 43,000 square miles, it is about the size of the state of Tennessee. Liberia is rich in natural resources like iron ore, rubber and timber. The 2008 Census[4] puts the population around 3.5 million, 53% of which is 19 years or younger; the average household size is about 5 persons. Seventeen major ethnic affiliations exist in Liberia's fifteen counties.

Liberia is recovering from a brutal 14-year civil war in which much of the infrastructure and social systems were destroyed, leaving sectors like health and education non-functioning. The past decade has ushered in hope to Liberia, partly due to the leadership of President Ellen Johnson-Sirleaf, the first democratically-elected female head of state in Africa. Since 2005, her administration has completed the Heavily-Indebted Poor Country process to eliminate $4.6 billion of external debt, set a vision for Liberia to become a middle-income country by 2030 and has seen an average 6.4% growth rate in 2010, making it one of the fastest growing economies in the world.[5] The country looks forward to full implementation of the 2009 National Decentralization Policy, but all levels of government, especially sub-national, continue to suffer from lack of resources. Liberia now faces a reduction in donor funds and is not likely to meet most of the MDGs.

The 2007 Demographic and Health Survey[6] found that only 65% of Liberian households have access to an improved water source. Almost 20% of children under five years of age had diarrhea in the two weeks preceding the survey. Sixteen percent of households reported treating their drinking water with bleach or chlorine, and 80% of households reported doing nothing to treat their drinking water. A relevant study the following year found that 59% of households surveyed used either a pit latrine or a flush toilet, but flush toilets were most prominent in the capital city of Monrovia, and one-third practiced open defecation on the beach, in a river or a bush.

Suakoko is well-known as the agricultural seat of Bong County and for hosting one of the major universities of Liberia, Cuttington and one of the major government referral hospitals, Phebe. The population of Suakoko, at 29,180, makes up just under 10% of that of Bong County. Less than 1% of the households in Bong consider indoor pipes or pumps as their main water source; about 30% consider outdoor pipes or pumps as their main water source and 25% consider it to be a river, lake or spring. The most prevalent means of human waste disposal is the bush, at 66% percent of households; the next most prevalent means is a covered pit latrine at 19 percent. Thirty-six percent of households live 80 minutes or more from the

[4] Liberia Institute of Statistics and Geo-Information Services (LISGIS). (May 2009). *2008 Population and Housing Census: Final Results*. Monrovia: Liberia.

[5] Remarks by H.E. President Ellen Johnson Sirleaf. (June 2011). *Emerging Africa and the Private Sector: A Liberian Experience*. Speech presented at the Center for Global Development (CGD), Washington, DC.

[6] Liberia Institute of Statistics and Geo-Information Services (LISGIS) [Liberia], Ministry of Health and Social Welfare [Liberia], National AIDS Control Program [Liberia], and Macro International Inc. 2008. *Liberia Demographic and Health Survey 2007.* Monrovia, Liberia: Liberia Institute of Statistics and Geo-Information Services (LISGIS) and Macro International Inc.

What is CLTS?

This approach, now used in more than 25 countries, facilitates communities to conduct their own appraisal and analysis of open defecation and develop a plan of action to become open defecation free (ODF). CLTS focuses on behavior change needed to ensure real and sustainable improvements – investing in community mobilization instead of hardware. CLTS triggers the community's desire for change, propels them into action and encourages innovation, mutual support and appropriate local solutions, thus leading to greater ownership and sustainability. It accomplishes all of this without external subsidies for latrine construction.

The process includes pre-triggering, triggering and post-triggering. Pre-triggering involves selecting a community and building a rapport before the triggering appraisal. This step typically takes up to one week and requires 1-2 field staff visiting the community 1-2 times in advance to set up meetings and explain objectives. The field staff needs to meet local leaders and gather some basic information on the village to ensure it is a favorable location.

Triggering is the ignition moment and is based on stimulating a collective sense of disgust and shame among community members as they confront the negative effects of open defecation. It involves a participatory sanitation profile analysis with a team of 3-4 facilitators, and should be completed within a day.

Once a community has been triggered and decides to take action, they should create an action plan. One to two staff should revisit the community 1-2 times in the first week, then at wider intervals, to encourage and support the process.

Information adapted from *Handbook on CLTS*, available at http://www.communityledtotalsanitation.org/.

nearest health facility while 23% live 20 minutes or closer. Forty-three percent of households are situated less than 20 minutes to the nearest primary school.

Following the civil war, many NGOs worked to improve the status of WASH-related indicators around Liberia. Since it was considered a time of emergency relief, much of the work, such as building community and household toilets, was done totally at the expense of the donor; programs did not emphasize Information, Education and Communication nor was there a mechanism for involving the communities. Though many toilets were constructed, they were often not used for the intended purpose, but rather for storing materials or kept just for visitor use. Similarly, community toilets fell into a state of disuse due to lack of maintenance. The programs were not owned by the people and their reliance on subsidies and government grew.

Suakoko is no exception to the overall lack of access to improved water supply and basic sanitation and hygiene measures found throughout Liberia. Part of this can be attributed to a lack of awareness and a limited cadre of trained professionals in the WASH industry, especially at sub-national level, including environmental health staff at the Ministry of Health and Social Welfare (MOHSW) and suppliers of WASH products in the private sector.

Suakoko is considered a very conservative community that attaches great importance to welcoming and accommodating visitors; community members were keen on ensuring the availability of a proper latrine for such reasons. In addition, they recognized the risk to women and children in using the bush as they have to expose themselves in unsafe areas. However, the IWASH team was skeptical as to whether the CLTS approach could work in an environment where people were used to dependence on the government and subsidies from NGOs for many goods and services.

CHF International brought the CLTS component of the USAID-funded IWASH program to Suakoko in April 2011. CLTS aims to improve sanitation in rural areas by focusing on the community achieving open defecation free (ODF) status through a non-subsidy approach in which individual construct and use sanitation facilities, including community and household toilets, dish racks, and hand-washing stations. (See text box for more information.)To introduce CLTS, the IWASH team joined with MOHSW and the Ministry of Public Works (MPW) at the national level. Together, they completed county-level CLTS seminars to secure political will, foster coordination and establish steering committees. In Bong, they hosted a 6-day training for 20 staff from the county education office, the county health office and relevant NGOs (CHF, PSI, and ADRA). Suakoko was one of the districts recommended by county officials that was ripe for embracing the CLTS process.

Pre-triggering began with a survey of each household in Suakoko to collect baseline data regarding the availability of toilets and practices around sanitation such as hand-washing. Community members then met in a central location for one hour. No advice regarding open defecation or sanitary habits was discussed at this time but rather it offered a chance for the CLTS facilitators to build a rapport with the community to ensure participation. CLTS team members were welcomed with the traditional Kola nuts by one of the elders.

The introductory meeting was followed by education on CLTS. Community members underwent the triggering process which is based on stimulating a collective sense of disgust and shame among community members as they confront the negative effects of open defecation on their health and environment. The triggering process was carried out using the various prescribed tools and techniques like the transect walk, fecal mapping and medical expense calculation by the village. It was stressed that open defecation leads to compromising the respect of the town chief and community as a whole. They were also taught that even a single person can be a threat to the entire community if they defecate in the open. School children were sensitized about the ill effects of open defecation and motivated to take positive action by making a statement to their parents about building a household latrine.

Four of the villages collectively decided to participate in the CLTS process during triggering and set a timeline themselves. Banamah, Geayea, Gormeneyean and James Flomo comprise a total population of nearly six-hundred. During this process, many community leaders emerged who showed interest in championing the process, termed “natural leaders” in the CLTS process. The villages also decided to form village water and sanitation committees, a process that takes place before the entire community, which formulated a rough plan for taking the villages to ODF status. They met on a weekly basis to discuss progress and plan activities like radio talk shows, art competitions and debates, and visited individual households to motivate community members to stop open defecation. They were invited to the county capital, Gbarnga, to share their plans with government stakeholders. IWASH offered transportation.

The CLTS approach brought excellent results in Suakoko and within two weeks the four villages had set up a sanitation campaign that included a weekly clean-up; they use the dig and bury method. The villages worked hard to construct latrines as a means of establishing sanitation facilities throughout their communities. Monitoring of progress was done by the County Steering Committee, natural leaders and the IWASH team. Nineteen latrines were built with the following breakdown - Banamahh-6, Geayea-3,

Gormeneyean-7, James Flomo-3. Though official CLTS materials suggest that ODF should be achieved within three months, Suakoko took a bit longer. After six months all four villages were ready to celebrate their achievement of ODF, with festivities in July and August 2012. Key government authorities and IWASH partners were present to witness the cultural performances, participate in the walk around the community that showcases improved sanitary conditions and offer praise to key CLTS leaders.

Now that these four villages have achieved ODF, they are not stopping in their progression towards a healthier lifestyle. They have decided to go beyond ODF by incorporating the use of clothes lines and dish racks into common practice and move up the sanitation ladder towards improved sanitation facilities.

LESSONS LEARNED

1. Monitoring is critical: Triggering has a powerful impact on the community, but many times it is short-lived; repeated visits help sustain momentum, or teaching community members to monitor the process has also worked in some instances (see text box).

In Ndambu village, Lofa County, the community offered a building to store IWASH materials. They chose a store keeper to manage the supplies. After teaching them about the supplies, such as the proper ratio of cement, sand and crushed rock for one culvert, community leaders were able to monitor the project whether IWASH monitors were there or not. They kept accurate records of all monitoring forms provided.

2. Rapport building increases effectiveness: Facilitators are strangers to communities; to build rapport with a community, they can carry out surveys at each household during pre-triggering for better reception of and participation in the CLTS process. It is also essential for them to involve government officials through consultative meetings as political buy-in and integration with other health programs has strengthened implementation.

3. No subsidies works: The CLTS process is accelerated through facilitating the availability of toilet construction material at a reasonable cost without offering any subsidy. Subsidies and handouts undermine the community as members do not need to work together to attain goods. Even though the people of Suakoko were used to hand outs and subsidies from the government and NGOs, the no-subsidy approach of CLTS still worked, meaning communities can become accustomed to independence from such programs.

4. Isolated and small communities are good targets for CLTS: Isolated and small communities, versus large communities situated closer to busier towns, are more amenable to CLTS. Similarly communities which have a relatively poor socio-economic status have better rates of success in CLTS than those which have a relatively high socio-economic status.

5. Quality and motivation among community leaders and natural leaders are key: In communities where leaders are highly motivated, they act as catalysts for the entire process. In many instances some of them were so enthusiastic that they even helped the community in procuring toilet construction material in bulk.

6. Institutional structures help: The formation of structures, such as village water and sanitation committee and steering committees at various levels, has helped in providing direction to the CLTS process, and measuring and monitoring results. However, there have been instances in which committee formation has led to division within a community if the committee does not represent the community properly; members may disown the movement if they see it only as the committee's program. There is no one-size-fits-all approach for CLTS so it important to gauge the support for such a structure.

7. CLTS has a huge potential for self-spreading. Communities are approaching IWASH in large numbers to introduce CLTS in their villages. Timely ODF celebrations motivate nearby communities to embrace the CLTS approach.

8. CLTS goes beyond ODF: The CLTS approach is an entry point for development - it encourage the community to look beyond open defecation free community and work together as a team to achieve a sustainable results for all. When other problems can be linked to poor sanitation within a community, members become motivated to improve sanitation. For example, some communities have built dish racks and dug their own well on their own. In addition, it is important for to ensure communities don't slip back to open defecation once ODF has been achieved *In many instances, (village level local government) have passed resolutions imposing fine on whoever is caught going out for open defecation.* For more on going beyond CLTS, visit http://www.communityledtotalsanitation.org/.

9. A little competition is a good thing: Communities that have achieved ODF status are given priority to trigger other communities and a scale up package, a competition that has proven successful in spurring action.

10. CLTS has the potential to drive a WASH private sector at sub-national level: The process of simultaneous triggering in so many communities leads to a huge demand for construction material required for toilets. While bricks, cement, tools, etc. are a challenge for the availability in all the villages, items such as pan, p-trap, pipe, etc. have to be procured from a nearby town and often at high prices. Huge demand for toilets also means increase in demands for masons. This demand can bring spark an interest in district-level activities for entrepreneurs and technical experts.