



## Annual Report FY2014

Program Name/Acronym: Improved Water, Sanitation & Hygiene /IWASH

Country: Liberia

Donor: USAID

Award Number/Symbol: 669-A-00-10-00087-00

Reporting Period: Oct 1, 2013 to Sept 30, 2014

Submitted To: Ochiawunma Ibe/AOR/USAID

Submitted By: Global Communities/Pieter deVries



<b>Name of Project</b>	<b>Improving Water, Sanitation, and Hygiene (IWASH)</b>
<b>Country and regions</b>	<b>Liberia, West Africa</b>
<b>Donor</b>	<b>USAID</b>
<b>Award number/symbol</b>	<b>669-A-00-10-00087-00</b>
<b>Start and end date of project</b>	<b>February 25, 2010 – February 23, 2015</b>
<b>Total estimated federal funding</b>	<b>10,000,000 USD</b>
<b>Contact in Country</b>	<p>Pieter deVries, Chief of Party  Chief-of-Party IWASH  Global Communities  Monrovia  Liberia  Tel: (+231) (0) 880 336373  Email: pdevries@chf-liberia.org</p>
<b>Contact in U.S.</b>	<p>Pia Wanek  Director, Office of Humanitarian Assistance  Global Communities  8601 Georgia Avenue, Suite 800  Silver Spring, MD 20910 USA  Tel: (+1) 301-587-4700  Email: pwanek@globalcommunities.org</p>

# Table of Contents

Table of Contents .....	i
Executive Summary .....	4
Introduction.....	5
Implementation Activities by Program Objective and Expected Results.....	6
Performance Management Plan Table .....	14
Progress Report: IR1 – Increased Access to WASH .....	15
Progress Report: IR2 – Increased Knowledge and Use of Improved WASH.....	23
Progress Report: IR3 – Improved Enabling Environment for WASH .....	30
Collaboration with Other WASH Sector Partners.....	33
Ebola Response .....	35
Endline Survey.....	38
Annex I: Bong County CLTS Map .....	40
Annex II: Nimba County CLTS Map .....	41
Annex III: Lofa County CLTS Map.....	42
Annex IV: Environmental Compliance .....	43
Annex V: Latrine Construction, Paynesville .....	47
Annex VI: Proposed Research Questions for Reformatted Endline Survey: .....	50

## Acronyms and Abbreviations

BCC	Behavior Change Communication
CDC	Center for Disease Control and Prevention
CEM	Coarsened Exact Matching
CHT	County Health Team
CLTS	Community-Led Total Sanitation
CSC	County Steering Committee
CWC	Community WASH Committee
DALY	Disability-Adjusted Life Year
DEOH	Division of Environmental and Occupational Health
DQA	Data Quality Assessment
EHT	Environmental Health Technician
GHI	Global Health Initiative
GHWD	Global Hand Washing Day
GoL	Government of Liberia
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
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
NLN	Natural Leader Network
NWSHPC	National Water, Sanitation, and Hygiene Promotion Committee
ODF	Open Defecation-Free
PE	Peer Educator
PMP	Performance Monitoring Plan
POU	Point-of-Use
PRS	Poverty Reduction Strategy
PSI	Population Services International
PTA	Parent Teacher 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's 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
WTD	World Toilet Day

## Executive Summary

FY2014 has been a very successful year for the IWASH program. Building upon the performance of FY2013, the program expanded CLTS through the Natural Leader Network driven model to exceed triggering and Open Defecation Free (ODF) community targets. The program also exceeded targets for water access through WASH Entrepreneur activities. The Natural Leader Network has been more effective than anticipated, not only in terms of ODF performance, but also as champions of Ebola response messaging. It appears there are strong linkages between ODF behavior and the non-transmission of Ebola. This connection is described in a new report section, Ebola Response, and will be further researched through an endline study described in Section 12 – Endline Survey.

The success in FY2014 can be summarized in a few performance numbers as shown below:

	LOP Target	Actual to Date
Communities Triggered	300	352
Communities ODF	220	284
Number of CLTS Ambassadors	48	112
Beneficiaries with access to improved drinking water	101,608	158,500
Number of water points constructed or rehabilitated	244	376
Number of active WASH Entrepreneurs	21	50

The numbers presented for “Communities Triggered” and “Communities ODF” are final for the IWASH program, and represent the highest level of CLTS success in Liberia. The conversion rate for triggered communities becoming verified as ODF is 80%, a very high rate for any program in the world.

Access to improved sanitation has also been increased by construction of three urban latrines in Paynesville. These facilities, implemented with co-funding from Chevron, will be inaugurated in the first quarter of FY2015. The increased access to sanitation has not been included in the performance numbers above, because the facilities are not yet operational but will be reported on in the next period.

WASH Entrepreneurs have contributed enormously to the increase in access to improved water supply through repair of hand pumps. They have also been instrumental in Ebola response messaging in their own communities and throughout the counties, with support from IWASH. In FY2015, WASH Entrepreneurs will be distributing hygiene kits (supplied by UNICEF) in Ebola effected communities and training those communities members to adopt hygienic behaviors to prevent the spread of the disease.

In March, IWASH held program phase-out planning meetings well attended by MOHSW and MPW, including Assistant Ministers Nyenswah and Yarngo, as well as CHOs, CHDDs, WASH Coordinators, and Development Superintendents from all three IWASH target counties. This focus of the program was quickly overshadowed, when immediately following the meeting in March, Ebola entered Liberia through Foya. IWASH had capacity to respond immediately in Lofa County, delivering personal protective equipment, soap, and disinfectant solutions to clinics and hospitals in the Liberia outbreak epicenter, Foya District. The response broadened to training of clinic staff and environmental health technicians in Lofa, Bong, and Nimba counties, as well as conducting community awareness campaigns for preventing disease transmission. As the outbreak spread, IWASH expanded response activities, conducting education, dialogue and action planning meetings to encourage communities to adopt behaviors to stop the spread of the disease. The encouraged behaviors primarily hygiene and sanitation practices – included washing hands, safe burial practices, and notification of county health teams when people become sick. Through additional funding by the Office of Foreign Disaster Assistance (OFDA), Global Communities has extended Ebola response programming across Liberia to every county.

In the final period of IWASH, Global Communities will investigate how the hygiene and sanitation behaviors have prevented Ebola from spreading into any ODF communities as part of an endline study.

## Introduction

Global Communities 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 Global Communities 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. In FY2013, IWASH responded to a midterm evaluation by refocusing the activities of the program into 10 projects which streamlined the activities of the program and focused on sustainable sanitation through Community-Led Total Sanitation (CLTS).

This year the IWASH program is expanding its impact on WASH sector development. The targets for CLTS have been exceeded through implementation of an innovative Natural Leader Network driven approach. Targets for water point construction and rehabilitation have also been exceeded by creating a group of WASH Entrepreneurs who are repairing community hand pumps at a fraction of the cost charged by NGOs to do the work, making it affordable to communities. The model of Natural Leader Network driven CLTS has been adopted as the national approach and is being utilized by the other implementers – UNICEF and Liberia WASH Consortium.

In the second half of the fiscal year, Ebola response dominated IWASH activities and was the primary focus of the ministries of health and public works. That work continues into FY2015 with the following activities: 1) education, dialogue and action planning meetings, 2) hygiene kit distribution and hygiene promotion trainings, 3) water source repair at health clinics, 4) an endline study further investigating why no IWASH communities that have ODF behaviors have been affected by Ebola. This linkage between open defecation free behavior and Ebola free status may be the key to ensuring that no future outbreaks of Ebola become national and international emergencies.

## Implementation Activities by Program Objective and Expected Results

The 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” to improve health outcomes for community members. This is to be accomplished through three intended results: 1) increased access to water demand, 2) increased community knowledge and use of potable water supply and storage technologies, sanitary practices, and water hygiene, and 3) improved enabling environment for WASH at the national, county, district, and community level. For each of these intended results, the IWASH program has several projects aimed at improving the WASH attributes in the target areas where the program is being implemented. CLTS activities in Bong, Nimba, and Lofa are mapped in Annex I, II, and III. The projects are listed below, arranged under the relevant intended result (IR).

IR 1: Increased Access to Water Supply, Sanitation, Hygiene, and household level products

- WaterGuard Sales and Distribution
- Small WASH Infrastructure Projects (SWIP)
- Private Public Partnership (PPP) Urban Latrine Construction
- Training and Establishment of WASH Products and Services Entrepreneurs

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

- Community-led Total Sanitation (CLTS)
- Development of WASH Products and Services Guide
- Social Marketing of ODF CLTS

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

- Institutionalization of CLTS within Government
- WASH Policy Development, Improvement, and Dissemination
- Water Point Functionality and Water Quality Data Management

In addition to the projects outlined above, the program added programming during this reporting period to effectively respond to the Ebola outbreak in Liberia. IWASH adapted quickly to the outbreak, working with communities to provide needed education and materials to combat the Ebola Virus Disease (EVD). To capture these activities, this report includes a detailed narrative in Section 11. The IWASH program has also adapted the anticipated questionnaire for the endline survey to better capture and measure results from these activities.

Increasing access to WASH products improves the supply side of the WASH equation. The IWASH program’s four projects for increasing supply side deal with: 1) “point of use” (POU) water treatment through WaterGuard sales and distribution, 2) SWIP, water supply and latrine construction for schools and health clinics, 3) urban latrines constructed in the Greater Monrovia/Paynesville area, and 4) establishing WASH Entrepreneurs who can implement CLTS, fix water sources, and supply products such as WaterGuard and soap. By increasing target population’s access to basic WASH products and services, IWASH expects that utilization will also increase, once demand has been created through developing community awareness using the behavior change methodologies included in IR2.

Increasing community knowledge and use of safe water, sanitation, and hygiene (IR2) has become the core of the IWASH program. This has come about through a realization that the sustainability of water supply and sanitation infrastructure is not possible without communities valuing those resources. In Liberia after the war, many NGOs constructed latrines and water supply points that were never maintained. The government of Liberia lacks the resources to maintain the infrastructure and communities have believed that it was not their

responsibility to maintain them. By developing target communities' awareness of and desire for safe water, sanitation, and hygiene, as well as a realization of their ownership of these resources, IWASH seeks to empower communities to create and maintain their own facilities. The IR2 projects are: 1) Community-led Total Sanitation and related messaging with the goal of communities being open defecation-free, 2) development of a WASH products and services guide to assist communities to take ownership of WASH resources, and 3) social marketing of CLTS to expand awareness of and desire for the benefits prior to engagement.

The third intended result (IR3) deals with the enabling environment for improved WASH in Liberia. There are two main aspects to this: 1) creating and developing the capacity of the GoL structures for CLTS implementation at national, county, district, and community levels, and 2) developing the policies and technical guidelines for WASH in Liberia and disseminating those documents to county and district level officials so that they may be implemented.

The projects defined under IR3 are: 1) institutionalization of CLTS within Government – ensuring that key staff are hired and trained to perform CLTS in target areas, 2) WASH policy development, improvement, and dissemination, and 3) water point functionality and water quality data management. The third element of this IR includes two water supply related activities. One of these activities, the water point functionality system, has been determined to be redundant due to a similar project being implemented in Liberia. In place of this activity, technical guidelines were developed with support from the IWASH program – the National Hygiene Promotion Guideline. IWASH is also assisting DEOH on finalizing a National Drinking Water Quality Guidelines, as well as a database to manage drinking water quality test data.

### *Implementation Indicators*

The indicators that have been developed for the performance management plan (PMP) for IWASH are presented in the table below, arranged by IR. The targets for FY 2014 and life of project (LOP) are presented along with the performance for the year to date and, where appropriate, cumulative performance. For hardware installation and maintenance deliverables, cumulative performance makes sense. Some of the behavior change indicators are to be measured at the end of the program, rendering cumulative performance irrelevant. For these indicators IWASH performed some informal rapid survey to assess the penetration and adoption of messaging. The results of these surveys provide an indication of the current awareness of target community members with regard to the importance of safe water (treated with WaterGuard) and personal hygiene.

Many of the performance indicators are affected by more than one of the 10 IWASH projects. In the right hand column of the PMP table the projects that affect indicators are noted. In the next section of the report each of the projects is described in detail, performance during the reporting period is discussed as well as implementation in following periods.

For the second half of FY14, the IWASH program intended to focus on hygiene promotion and safe water messaging. While all targets around these indicators were met and are explained in greater detail below, the IWASH program also spent part of the reporting period working with communities to respond to the Ebola outbreak. Additional indicators around those activities were not added to the PMP but are explained in greater detail in Section 11. The endline survey was also amended. The hope of the revised study is to show how ODF triggered communities, through better hygiene and sanitation practices, as well as through increased

receptiveness to health messaging, allowed communities to insulate against EVD. As a result, some indicators once found in the PMP have been abandoned in favor of the new endline survey.

GOAL/IR Results Statements	Indicators	2014 Target	2014 Performance	LOP Target	Performance 2010 – 9/30/2014	IWASH Project Effecting Performance
GOAL: Improved water supply, sanitation, and hygiene	Percentage (%) of children under 60 months of age with diarrhea in the last 2 weeks	Reduced levels of diarrhea between target and non-target community areas	To be measured through the Endline CEM survey	Reduced levels of diarrhea between target and non-target community areas		All Projects
IR 1: Increased access to water supply, sanitation, hygiene, and household level products as a result of USG assistance	1-1 Percentage (%) of population using improved drinking water source	2% > baseline 4,604 persons	Cumulative = 84% 10% = (71,496 people reached)	14% > baseline 76% Cumulative	22% > baseline 84% Cumulative (158,500 people reached)	2. SWIP 6. WASH Entrepreneurs
	1-2 Percentage (%) of population using an improved sanitation facility	6% > baseline 42,433 persons	27.5 cumulative 7%. Baseline (53,229 persons reached)	13.3% > baseline 26% Cumulative	15% > baseline 28% Cumulative (106,564 Persons reached)	2. SWIP 3. PPP Urban Latrines 5. CLTS
	1-3 Percentage (%) of IWASH target communities that report that they know a place within their district to buy hand pump spare parts if their hand pump spoils	65%	Will be verified through End-line survey	65%	70%	4. WASH Entrepreneurs 6. WASH Products & Services Guide
	1-4 Percentage (%) broken IWASH water facilities that were repaired by	75%	100%	75%	100%	4. WASH Entrepreneurs 5. CLTS

	community within one year of handed over					
	1-5 Percentage (%) of IWASH school latrines properly managed after 1 year of hand over	70%	83%	70%	83%	2. SWIP 5. CLTS
IR 1.1 Increased access to Non-Household level IWASH products	1.1-1 Number of people gaining access to an improved water source (first time access)	0	932	0	6,137	2. SWIP
	1.1-2 Number of water points constructed or rehabilitated in target communities.	69	203 (7 new, 80 IWASH rehab contracts ,11 rehab during training, 105 Independent rehab contracts)	244	376	2. SWIP 4. WASH Entrepreneur
	1.1-3 Number of "girl friendly" latrines constructed at schools	0	0	17	17	2. SWIP
IR 1.2 Increased access to Household level IWASH products	1.2-1 Number of IWASH wholesale and retail outlets regularly stocking POU water treatment products.	0	0	51	63	1. WaterGuard Distribution Established in FY2103 and continuing to operate
	1.2-2 Number of Water Guard bottles sold or distributed	25,435	94,089	366,694	626,316	1. WaterGuard Distribution
	1.2-3 Number of IWASH-trained WASH products and services entrepreneurs actively selling WASH product and services in IWASH communities	10	39	21	50	4. WASH Entrepreneur

IR 2: Increased community use of potable water supply and storage technologies, sanitary practices and water hygiene	2-1 Liters of drinking water disinfected with USG-support point-of-use water treatment products	21,861,383*	80,869,496	315,173,493	538,318,602	1. WaterGuard Distribution 4. WASH Entrepreneur 5. CLTS
	2-2 Percentage (%) of care givers in IWASH-targeted communities who cite different critical times when they wash their hands with soap		Abandoned		Abandoned	This activity has been removed from IWASH implementation plans.
	2-3 Percentage (%) of caregivers in IWASH communities that can show a container of treated drinking water with POU water treatment product WaterGuard		Abandoned		Abandoned	This activity has been removed from IWASH implementation plans.
	2-4 Percentages(%) of beneficiaries able to show the latrine they are using to defecate		Abandoned		Abandoned	This activity has been removed from IWASH implementation plans.
	2-5 Percentage (%) of primary caregivers that are able to show a safe place they dispose of child feces		Abandoned		Abandoned	This activity has been removed from IWASH implementation plans.
	2-6 Percentage (%) of triggered communities that achieved ODF status	62%	96%	75%	81%	5. CLTS FY2014: first % is all ODF, second % is only NLN triggered
	2-7 Percentage (%) of ODF communities that maintained their status after one year of being "verified ODF"	n/a	n/a	90%	73%	5. CLTS
IR 2.1: Increased community knowledge of potable water	2.1-1 Percentage (%) of target group that knows that clear		Abandoned		Abandoned	This activity has been removed from IWASH implementation plans.

supply and storage technologies, sanitary practices and water hygiene	water is not always safe for drinking					
	2.1-2 Percentage (%) of target group that can cite two ways of fecal-oral transmission		Abandoned		Abandoned	This activity has been removed from IWASH implementation plans.
	2.1-3 Percentage (%) of the target group that knows washing hands with soap removes germs		Abandoned		Abandoned	This activity has been removed from IWASH implementation plans.
	2.1-4 Percentage (%) of target group who knows that treated drinking water can be contaminated if the water is not stored properly		Abandoned		Abandoned	This activity has been removed from IWASH implementation plans.
IR 2.2: Increased social norms for potable water supply and storage technologies, sanitary practices and water hygiene	2.2-1 Percentage (%) of target group who reports that their neighbors understand the importance of treating their drinking water		Abandoned		Abandoned	This activity has been removed from IWASH implementation plans.
	2.2-2 Percentage (%) of target group who reports that their neighbors take some actions to store their drinking water properly		Abandoned		Abandoned	This activity has been removed from IWASH implementation plans.
	2.2-3 Percentage (%) of target group that believe that their neighbors consider washing hands with soap as a good cleanliness practice	50% CEM	Will be verified through endline Survey		N/A Requires Survey	5. CLTS
<b>IR 2.3:</b> Increased Community demand for ODF Status	2.3-1 Number of communities verified "Open Defecation Free"	73	137	220	284	5. CLTS

	2.3-2 Number of communities that express interest in CLTS by returning completed CLTS request forms	45 per year	129	75	180	5. CLTS 7. Social Marketing ODF Status
	2.3-3: Number of natural leaders that emerge as CLTS ambassadors	24 per year	84	48	112	5. CLTS 7. Social Marketing ODF Status
IR3:Improved enabling environment for WASH at national, county, district and community level	3-1 Percentage (%) of IWASH communities using their own funds (cash box) to operate and maintain their drinking water source <sup>(1)</sup>	85% of yearly sample	85%	85%	86%	4. WASH Entrepreneurs 5. CLTS Interim results from USAID field trip
	3-2 Percentage (%) level to which County Steering committee (CSC) follow their TOR in applying CLTS <sup>1</sup>	75%	64%	75%	56%	5. CLTS 8. CLTS in GoL
	3-3 Percentage (%) of project community's water infrastructure reports are captured in the county database on a quarterly basis		Abandoned		Abandoned	This activity has been removed from IWASH implementation plans.
IR 3.1 A functional CLTS structure and system institutionalized at national, county,	3.1-1 # of monitoring visits made by GOL CLTS governing structures per IWASH ODF community. (NTCU,CSC,DSC)	3 (2 CSC, 1 NTCU/ ODF Community)	3	3 visits per ODF community	3	8. CLTS in GoL

<sup>1</sup> The performance of CSC with respect to their TORs was graded by IWASH County Advisors during the third quarter of FY2014.

## Performance Management Plan

district and community levels	3.1-2 Number of functional district Natural Leaders Networks established by IWASH	6	0	6	6	8. CLTS in GoL
	3.1-3 A National CLTS Guideline developed and published with IWASH input	0	0	1	1	9. WASH Policy Dev & Dissemination
IR 3.2 The GoL rural water infrastructure monitoring and reporting system strengthened	3.2-1 Number of community water points on which water point reports are received regularly		Abandoned		Abandoned	This activity has been removed from IWASH implementation plans.
	3.2-2 A national water quality electronic database developed and capturing data from counties		Abandoned		Abandoned	This activity has been removed from IWASH implementation plans.
IR 3.3 GoL WASH policy documents developed and disseminated at county and district	3.3-1 Number of GoL WASH policy documents that IWASH fully participated in developing	1	1	7	7	9. WASH Policy Dev & Dissemination  National Drinking Water Quality Guideline
	3.3.2 Number of policy dissemination workshops conducted by IWASH at county and district levels	0	0	4	4	9. WASH Policy Dev & Dissemination
IR 3.4 National Hygiene Promotion Guidelines developed	3.3-1 A National Hygiene Promotion Guideline developed	1	1	1	1	9. WASH Policy Dev & Dissemination Hygiene Promotion Guidelines Complete, awaiting signature by Assistant Minister Nyenswah

# Progress Report: IR1 – Increased Access to WASH

## 1 WaterGuard Distribution

### Implementation indicators and outcome indicators

Indicator	2014	2014	LOP Target	Performance to date
	Target	Performance to date		
1.2-1 Number of IWASH wholesale and retail outlets regularly stocking POU water treatment products.	0	51	51	51
1.2-2 Number of Water Guard bottles sold or distributed	25,435	94,089	366,694	626,316
2-1 Liters of drinking water disinfected with USG-support point-of-use water treatment products.	21,861,383*	80,869,496	315,173,493	538,318,602
2-3 Percentage (%) of caregivers in IWASH communities that can show a container of treated drinking water with POU water treatment product WaterGuard	Abandoned	Abandoned	Abandoned	Abandoned

### Procurement and Social Marketing of WaterGuard

PSI is responsible for the activities under the Procurement and Social Marketing of WaterGuard project. However, in August of 2014 when the Ebola crisis moved the IWASH program towards more emergency response focused activities, the activities under this project also shifted. Due to these factors and the evacuation of PSI staff, the decision was made to end PSI's involvement in the IWASH program. All targets were met by September 2014 and the below is a brief narrative on the culmination of activities under this project.

During the reporting period, the IWASH program sold a total of 94,089 bottles of *WaterGuard*. Total number of bottles sold, to date is 626,316. These outpaced the original targets.

### Sales and Marketing Activities

The project far exceeded LOP goals by the end of FY14 due in part, to a new marketing strategy which began in the first half of the fiscal year. The new approach touched on 10 key strategies including a more recognizable bottle and the new tag line "Pour, Relax, Drink." These improvements, among other things, increased visibility in the market place and increased the emphasis on the emotional benefit of the product.

At the start of the launch, the IWASH team realized that the two greatest barriers to use were awareness and access. To overcome the barrier to access, the team brought WaterGuard directly to the target audience. This was done primarily through clinic health talks, market day events, promotional tours as well as engagement of Natural Leaders. Awareness in the communities was increased through better branding materials such as billboards and point of sale materials, and media campaigns such as radio jingles and print advertisements.

Clinic health talks during this period emphasized safe water practices and provided a cost comparison between frequent hospital and doctors' visits due to drinking contaminated water and the cost of buying WaterGuard to treat your water. Market day events continued to be successful in the communities with 1 to 2 events happening per week and positive reactions from the communities as demonstrated by increased sales during the events.

Engagement of the Natural Leaders network and WASH entrepreneurs to sell WaterGuard was met with mixed results. Some networks were unable to sell the product while others did not report all sales. However, two Natural Leaders (NL) in Bong County sold WaterGuard outside of the network after realizing the potential income opportunity. These NL have become successful merchants and one has gone on to become a wholesaler for WaterGuard in Gbarnga, Bong County.

Increased point of sale branding included a miniature billboard and point of sale WaterGuard display case to increase visibility of the product and merchants who carried it. A new radio jingle was also developed with popular Liberian recording artist F.A that mimicked a popular dance song. The jingle captures the tagline message of "Pour, Relax, Drink" and is short and catchy and so easy to remember and sing along with. A dance was choreographed to go along with the song and dance competitions are held at market day events.

### **Improved Distribution System**

Mano Manufacturing (MANCO) distributed WaterGuard throughout Liberia in partnership with IWASH. While MANCO is in charge of distribution, IWASH is in charge of marketing and messaging around the product. However, throughout the program, the IWASH team has run into problems with the distributor and has to facilitate a third party distributor to move product into areas outside of Monrovia.

As the Ebola outbreak worsened and demand for WaterGuard increased, MANCO once again became engaged in the challenge of getting their wholesalers to purchase WaterGuard directly and sales have increased substantially. In addition, large quantities of white bottle WaterGuard have been purchased by UNICEF to be included in household hygiene kits.

Overall, the Ebola outbreak has resulted in much higher awareness and demand for safe water. It is unclear how much of this demand will remain once the emergency has passed.

## Progress Report: IR1 – Increased Access to WASH

### 2 Small WASH Infrastructure Projects

#### Implementation indicators and outcome indicators

Indicator	2014 Target	2014 Performance	LOP Target	Cumulative Performance
1-1 Percentage of population using improved drinking water source.	2%> Baseline 14,604 persons	10%> Baseline 71,496 persons	14%> Baseline 76% Cumulative	22%> Baseline 82 % Cumulative
1-2 Percentage of population using an improved sanitation facility.	6%> Baseline 42,433 persons	7%> Baseline 53,229 persons	13%>baseline 26% Cumulative	15%>baseline 28% Cumulative
1-5 Percentages of IWASH school latrines properly managed after 1 year of handing over to school authorities.	70%	83%	70%	83%
1.1-1 Number of people gaining access to an improved water source (first time access)	0	932	0	6,137
1.1-2 Number of water points constructed or rehabilitated in target communities.	69	203	244	376
1.1-3 Number of "girl friendly" latrines constructed at schools	0	0	17	17

The Small WASH Infrastructure Project (SWIP) has met or exceeded all activity targets for the life of project (LOP), with the exception of 1-2: Population Using Improved Sanitation Facility. This target includes latrines constructed through CLTS (see Project 5), urban latrines (see Project 3), and school latrines constructed under SWIP. During the reporting period, the SWIP project constructed three urban latrines under Project 3, but the access numbers are not reported as the facilities were not opened during this time. These numbers will be reported during the next program period.

Population percentages using improved water sources in the target areas were exceeded for the life of project (LOP). This achievement is due more to the WASH Entrepreneur Project (see Project 4) successes than SWIP interventions. During the reporting period nine new water sources (hand pumps) were installed across Bong, Nimba, and Lofa Counties by the WASH Entrepreneurs bringing additional water access to 932 beneficiaries. The details of these water points are provided in the table below.

## **Well Construction**

<b>County</b>	<b>Location</b>	<b>Type</b>	<b>Problem</b>	<b>Status</b>
Lofa	Bazagizia Clinic	Hand dug well	Prior commitment	Complete
Lofa	Konia Clinic	Hand dug well	Prior commitment	Complete
Lofa	Gbanway Clinic	Hand dug well	Prior commitment	Complete
Lofa	Sarkedu Clinic	Hand dug well	Prior commitment	Complete
Lofa	Barkedu Clinic	Hand dug well	Prior commitment	Complete
Lofa	Zorzor Central High School	Hand dug well	Prior commitment	Complete
Lofa	Mumusuu	Hand dug well	ODF Community	Complete
Bong	Moses Lonta	Hand dug well	ODF Community	Complete
Nimba	Henry Barnh Village	Hand dug well	ODF Community	Complete

All water sources listed above were started and completed during the reporting period. The clinic and school water sources were replacement wells for failed water sources. The three community hand pumps were installed in communities that had achieved ODF status and thus prioritized to receive new water sources.

## Progress Report: IR1 – Increased Access to WASH

### 3 Public Private Partnership Urban Latrines

#### Implementation indicators and outcome indicators

Indicator	2014 Target	2014 Performance	LOP Target	Performance to date
1-2 Percentage of population using an improved sanitation facility.	6% > baseline 42,433 people to reach	28% cumulative 7% baseline 53,229 people reached	13% > baseline 26% cumulative	15% > baseline 28% cumulative 106,564 people reached

The public private partnership (PPP) urban latrines project constructs modern toilet and hygiene facilities in the Greater Monrovia/Paynesville area under the SWIP. The project is jointly funded by USAID and Chevron Liberia. In the first grant provided by Chevron, in 2012, the company allocated funds for the construction of two improved sanitation facilities completed in fiscal years 2012 and 2013 in Logan Town and New Georgia. With the successful completion of these latrines and positive community reaction, Chevron continued its partnership with the WASH program for the construction of three additional latrines in fiscal year 2014.

The construction of the new facilities began in April of 2014 and was completed during the reporting period. The new latrines are located throughout various communities in the Paynesville: Red Light Community, Samuel K. Doe (SKD) Community, and Paynesville City Corporation (PCC) Community. An inauguration ceremony is scheduled for the first quarter of FY 2015 and will be attended by the Mayor of Paynesville.

Pictures of the new facilities under construction are provided in Annex V.

# Progress Report: IR1 – Increased Access to WASH

## 4 WASH Products & Services Entrepreneurs

### Implementation indicators and outcome indicator

Indicator	2014 Target	2014 Performance	LOP Target	Performance to date
1-1 Percentage of population using improved drinking water source	2% > baseline 14,604 people to reach	Cumulative = 84%  10% = 71,496 people reached	14% > baseline 76% cumulative 101,608/71,759 People to reach, respectively	22% > baseline 84% cumulative 158,500 people reached
1-3 Percentage of IWASH target communities that report that they know a place within their district to buy hand pump spare parts if their hand pump spoils	65%	survey required – not yet completed	65%	70%
1-4 Percentage of IWASH provided water facilities that broke and were fixed by community within one year of being handed over to community	75%	100%	75%	100%
1.1-2 Number of water points constructed or rehabilitated in target communities	69	203	244	376
2-1 Liters of drinking water disinfected with USG-support point-of-use water treatment products	21,861,383	80,869,496	315,173,493	538,318,602
2-3 Percentage (%) of caregivers in IWASH communities that can show a container of treated drinking water with POU water treatment product WaterGuard		Abandoned		Abandoned
3-1 Percentage of IWASH communities that have a drinking water source and are using their own funds (Cash box) to operate and maintain it	85%	85%	85%	86%

The WASH Entrepreneur project has been very successful in hand pump repair for safe water provision as well as providing soap for hand washing. It is mainly through this project and the work of the entrepreneurs that

WASH has been able to far exceed targets to improved water source access. During the reporting period, many entrepreneurs also participated in the construction of new hand pumps in Bong, Nimba and Lofa Counties and provided access to water sources for communities that did not have adequate access.

A table reflecting new water points installed with help by Wash Entrepreneurs is below:

<b>County</b>	<b>Community</b>	<b>Type of Water Source</b>	<b>Estimated Number of Beneficiaries</b>
Lofa	Mumususu	Hand dug well	572
Bong	Moses Lonta	Hand dug well	205
Nimba	Henry Barnh Village	Hand dug well	155
<b><i>Estimated Number of Beneficiaries</i></b>			<b>932</b>

The WASH Entrepreneurs were also key participants in the WASH Ebola emergency response activities. Beginning in April, WASH responded to the Ebola outbreak first with training for CHVs and Natural Leaders, and with outreach activities to educate communities on the proper methods of prevention. WASH Entrepreneurs increased soap production to facilitate hand washing and were involved in WaterGuard promotion for safe water.

### **Key achievements**

WASH Entrepreneurs participated in hand pump repair activities in Bong, Nimba, and Lofa Counties to advance their skills in water source development. From June 2013 to September 2014, 16 Entrepreneurs from Bong County, 20 from Nimba and 21 from Lofa earned approximately \$14,450 through 140 hand pump repairs and work on 121 independent contracts.

Entrepreneurs won independent contracts two ways. One way was through identification of broken water points by the entrepreneurs in the communities. Another was through the community members asking known entrepreneurs to repair broken water sources. This not only improves water access for the community but provides revenue for the entrepreneurs.

For new well and hand pump installations in counties where former water points had failed, contractors used WASH Entrepreneurs on the projects as part of a training exercise. However, for a new well in Bong County, a WASH Entrepreneur bid on and won the contract, as is represented in the table below. During this period, WASH Entrepreneurs also sold 34,752 pieces of soap to promote good hygiene practices and increase income generation.

The table below provides a breakdown of WASH Entrepreneur income generation, by county and activity, for the reporting period.

<b>WASH Entrepreneur Performance</b>										
June 2013 to September 2014										
<b>COUNTY</b>	<b>CLTS/ODF Bonus</b>		<b>Hand Pump (HP) Repair IWASH</b>		<b>HP Repair Independent</b>		<b>New Well Installation</b>		<b>Soap</b>	
	<b>#</b>	<b>\$ USD</b>	<b>#</b>	<b>\$ USD</b>	<b>#</b>	<b>\$ USD</b>	<b>#</b>	<b>USD</b>	<b>#</b>	<b>\$ LD</b>
<b>Bong</b>	13	845	60	3,108	66	2,374	1	400	5882	58,820
<b>Lofa</b>	50	3,250	51	3,165	46	533	0	0	17553	175,780
<b>Nimba</b>	50	3,250	29	1,760	9	69	0	0	11317	113,170
<b>Total</b>	<b>113</b>	<b>7,345</b>	<b>140</b>	<b>\$11,738</b>	<b>121</b>	<b>\$2,976</b>	<b>1</b>	<b>400</b>	<b>34,752</b>	<b>347,770</b> (4,347USD)

A project focus for the second half of the FY14, was to utilize WASH entrepreneurs and the Natural Leaders Network to promote better hygiene practices in their communities. Besides improving water sources and encouraging the use of soap, entrepreneurs triggered 113 neighboring communities to become ODF. For every community triggered, the entrepreneur received a small monetary bonus and some triggered as many as six communities during the reporting period.

The dedicated work by the WASH Entrepreneurs to improve water points, increased water access for approximately 71,496 beneficiaries. By county, access improved for roughly 32,391 community members in Bong, 30,549 in Lofa and 8,556 in Nimba Counties.

# Progress Report: IR2 – Increased Knowledge and Use of Improved WASH

## 5 Community-Led Total Sanitation (CLTS)

### Implementation indicators and outcome indicators

Indicator	2014 Target	2014 Performance	LOP Target	Performance to date
1-2 Percentage of population using an improved sanitation facility.	6% > baseline 42,433 people to reach	28% cumulative 7% baseline 53,229 people reached	13% > baseline 26% cumulative	15% > baseline 28% cumulative 106,564 people reached
1-4 Percentage of IWASH provided water facilities that broke and were fixed by community within one year of being handed over to community	75%	100%	75%	100%
1-5 Percentage of IWASH school latrines properly managed after 1 year of handing over to school authorities.	70%	83%	70%	83%
2-1 Liters of drinking water disinfected with USG-support point-of-use water treatment products.	21,861,383*	80,869,496	315,173,493	538,318,602
2-2 Percentage (%) of care givers in IWASH-targeted communities who cite different critical times when they wash their hands with soap.		Abandoned		Abandoned
2-3 Percentage (%) of caregivers in IWASH communities that can show a container of treated drinking water with POU water treatment product WaterGuard		Abandoned		Abandoned
2-4 Percentages of men and women able to show the latrine they are using to defecate.		Abandoned		Abandoned
2-5 Percentage of primary caregivers that are able to show		Abandoned		Abandoned

a safe place they dispose children feces.				
2-6 Percentage of triggered communities that achieved ODF status	62%	96%	73%	81%
2-7 Percentage of ODF communities that maintained their status after one year of being "verified ODF"	N/A	N/A	90%	73%
2.1-1 Percentage of target group that knows that clear water is not always safe for drinking		Abandoned		Abandoned
2.1-2 Percentage of target group that can cite two ways of fecal-oral transmission.		Abandoned		Abandoned
2.1-3 Percentage of the target group that knows washing hand with soap removes germs		Abandoned		Abandoned
2.1-4 Percentage of target group who knows that treated drinking water can be contaminated if the water is not stored properly		Abandoned		Abandoned
2.2-1 Percentage (%) of target group who reports that their neighbors understand the importance of treating their drinking water		Abandoned		Abandoned
2.2-2 Percentage (%) of target group who reports that their neighbors take some actions to store their drinking water properly.		Abandoned		Abandoned
2.2-3 Percentage (%) of target group that believe their neighbors consider washing hands with soap as a good practice of cleanliness		Abandoned		Abandoned
2.3-1 Number of communities verified "Open Defecation Free"	73	137	220	284

2.3-2 Number of communities that express interest in CLTS by returning filled in CLTS request forms.	45	129	75	180
2.3-3: Number of natural leaders that emerge as CLTS ambassadors.	24	84	48	112
3-1 Percentage of IWASH communities using their own funds (cash box) to operate and maintenance maintain their drinking water source.	85%	85%	85%	86%
3-2 % level to which County Steering committee (CSC) follow their TOR in applying CLTS <sup>2</sup>	75%	64% Average 67% Bong 63% Nimba 62% Lofa	75%	64% Average 67% Bong 63% Nimba 62% Lofa

The IWASH implementation of CLTS has been a resounding success for 5 critical reasons: 1) it has improved health outcomes for community members of ODF communities (no one in an IWASH ODF community was infected with Ebola in Lofa, Nimba, or Bong); 2) adoption by triggered communities is high (80%); 3) it is sustainable (73% of communities remained ODF for more than one year); 4) it is extensible, utilizing local human resources (Natural Leaders) for cost effectiveness; and 5) it is popular – 180 communities completed letters of interest requesting to be triggered.

The Ebola outbreak in Liberia and particularly in Lofa County, gives us the rare opportunity to gauge the impact of the CLTS on health outcomes by comparing how ODF and non ODF communities were affected. A review of the Ebola outbreak in proximity to ODF communities and how community members reacted to the outbreak to prevent infection in their communities will be conducted for the next reporting period, but initial information confirms that although some of the most affected communities were adjacent to ODF communities, the disease did not spread into these areas. The sanitation and hand washing behaviors cultivated through IWASH appear to have provided a barrier to disease transmission.

The conversion rate of triggered communities to Open Defecation Free (ODF) verified communities is 80% for the project as a whole and 95% for FY2014, when Natural Leader driven CLTS was used exclusively. An 80% success rate is extremely high for anywhere in the world and particularly noteworthy in a post conflict environment like Liberia where the influence of NGO programming is perceived to create an environment where communities are to be given benefits and not have to work for them. The IWASH experience proves that a high conversion rate can be achieved in Liberia.

Maintenance of ODF status is a challenge facing CLTS programs all over the world and has been the subject of analysis for Plan International – one of the global leaders in CLTS. Behavior change is typically an intervention that takes extended time and engagement to achieve. So far it appears that communities are maintaining their behaviors, which requires physically maintaining facilities as well, in the majority of ODF communities. Of the 91 communities that had achieved ODF status more than one year prior to assessment in June, 67 communities (73%) were fully assessed as ODF compliant. Additionally there were any communities that would have been fully certified if they performed small maintenance on physical structures in their

<sup>2</sup> The performance of CSC with respect to their TORs was graded by IWASH County Advisors during the third quarter of FY2014.

communities. Certification is not just an absence of open defecation, but also proper maintenance of all facilities (latrines, hand wash stations, dish racks, garbage pits, etc) required for ODF verification.

The Natural Leader Network has functioned extremely well in FY 2014, extending CLTS from one community to another and supporting successful conversion of communities. The Natural Leaders work most often within walking distance of triggered communities, providing access to communities on foot and no costs are incurred for lodging or transport. The success rate of CLTS becomes much higher when local people are the leaders and can draw on local power structures, like the traditional chiefs for support.

CLTS in the health districts IWASH has been working, has become a positive transformation of communities that is sought after. Demand has been created for CLTS among the community members. IWASH received 180 requests for triggering in FY2014, more than the program could meet. Community members have seen the change occurring in neighboring ODF villages and want to be a part of it. There have been a number of “self triggered” communities, where members do not wait to be triggered, but instead ask their neighbors how to get started and make the first steps on their own. This kind of ground swell of support for CLTS is the most favorable environment for expansion of the program.

### **Reformatted Endline Survey – See section 12**

The IWASH program reformatted the intended endline survey to more accurately capture the situation on the ground, which includes gathering information on ODF communities that were not affected by EVD. More information on the amended survey, which will be conducted during the first half of FY 15, can be found in Section 12.

# Progress Report: IR2 - Increased Knowledge and Use of Improved WASH

## 6 WASH Products & Services Guide

### Implementation indicators and outcome indicators

<b>Indicator</b>	<b>2014 Target</b>	<b>2014 Performance</b>	<b>LOP Target</b>	<b>Performance to date</b>
A simplified WASH products and services Guidelines developed	1	1	1	1 (Completed)

### **WASH PRODUCTS AND SERVICES GUIDE**

The WASH Products and Services Guide was provided as an attachment to the FY2014 Semi Annual Report. It has since been completed.

# Progress Report: IR2 - Increased Knowledge and Use of Improved WASH

## 7 Social Marketing of Community-led Total Sanitation

### Implementation indicators and outcome indicators

Indicator	2014 Target	2014 Performance	LOP Target	Performance to date
2.3-3: Number of natural leaders that emerge as CLTS ambassadors.	24	84	48	112
2.3-2 Number of communities that express interest in CLTS by returning filled in CLTS request forms.	45	129	75	180

### 7.1 Social Marketing of Community Led Total Sanitation

In late-2012, the IWASH Project, aiming to build on CLTS success, decided to use social marketing in an effort to expand the reach and improve the success rate of CLTS in the IWASH counties and, potentially, beyond. This approach had not been implemented elsewhere in the CLTS world. The key to achieving the desired results was to develop a differentiated marketing approach to build the interest of pre-triggered communities in becoming “pupu free”, ODF, and to develop specific interventions to support natural leaders from ODF communities to become advocates for ODF in non-ODF neighboring communities.

### 7.2 CLTS Marketing Activities

**Brand Identity:** The Open Defecation Free sign board, “Improved Sanitation, Path to Development,” is now being used in all ODF communities in Bong, Nimba, and Lofa counties and has become the recognized symbol ODF communities. This logo has been approved by the National Technical Coordinating Unit for CLTS and will be adopted in the national CLTS guidelines as the logo that should be used by all CLTS implementers to identify ODF communities. Although its adoption in the guidelines is still pending, IWASH has been contacted by UNICEF and the Liberia WASH Consortium to use this logo for their ODF communities.

**Radio Dramas:** The CLTS radio dramas aired through December of 2013 on five radio stations in the three IWASH counties. IWASH received feedback from communities that they learned about CLTS based on listening to the story of Mulbah, the Natural Leader, and Mumusu, the clean community. Listeners have expressed strong interest in getting their communities open defecation free. A new installment of the drama was developed and scheduled to air from April through September 2014. When Ebola broke out in Liberia, messaging on containing the spread took precedence over marketing of CLTS.

**Street Theatre:** To supplement the radio dramas a live street theatre performance based on the narrative in the radio drama was developed. The street theatre version has been performed in 15 markets (five per IWASH Target County). The street theatre was used as a medium to create buzz about CLTS in the communities and get more communities interested in becoming “pupu free”. The IWASH team participated in the street theatre events by providing more information about what CLTS is and answering questions. Natural Leaders also participated to engage with communities that they might later trigger.

**Billboards:** Billboards depicting a Liberian making the choice between an obviously clean and organized community, and a messy dirty community, with the caption “Take the Path to Improved Sanitation”, were placed in key locations in WASH target counties. An additional three billboards were placed in a new market location in each county.

**Branding of Champions:** 160 CLTS Champions have been provided a specially designed champion uniform, which consists of a collared shirt with green accents and the CLTS logo. The uniform not only sets Champions apart from the other members of the Natural Leader Network, it will also make them more identifiable when they visit communities, markets, and other locations where spreading the promise of CLTS will increase receptivity of and desire for triggering and the benefits ODF can bring to communities.

# Progress Report: IR3 – Improved Enabling Environment for WASH

## 8 Institutionalization of CLTS within the Government of Liberia

### Implementation indicators and outcome indicators

Indicator	2014 Target	2014 Performance	LOP Target	Performance to date
3-2 % level to which County Steering committee (CSC) follow their TOR in applying CLTS <sup>3</sup>	75%	64% Average 67% Bong 63% Nimba 62% Lofa	75%	64% Average 67% Bong 63% Nimba 62% Lofa
3.1-1 # of monitoring visits done by GOL CLTS governing structures per IWASH ODF community. (NTCU,CSC,DSC)	2 CSC, 1 NTCU per ODF Community	3	3 visits per ODF community	3

The IWASH program created and supported all required governmental CLTS structures including continued support to District Level Steering Committees in all project districts, and creating the Natural Leader Networks which extends the connection from District EHTs to community level implementers (Natural Leaders). At the end of March 2014, IWASH conducted a program review meeting attended by all relevant government agencies, led by Assistant Minister Nyenswah and Assistant Minister Yarngo, with representatives of the Superintendent's in Bong, Nimba, and Lofa. In the meeting the GOL ministries expressed appreciation for the accomplishments of the program as well as the structures built to sustain CLTS. Both Minister Nyenswah and Assistant Minister Yarngo pledged to continue their support of the structures, through payroll inclusion of EHTs and encouraged participation in County-level CLTS Steering Committees (CSCs).

The CSCs have been helpful in CLTS implementation, but have not consistently supported field activities at the level anticipated in the CLTS Guidelines. This is an area that should be targeted for future development.

Shortly after the meeting the Ebola outbreak began in Lofa County, which diverted attention from CLTS to Ebola emergency response. Once the outbreak is contained, a renewed focus on CLTS activities will provide sustainable Ebola resistance for communities in Liberia.

<sup>3</sup> The performance of CSC with respect to their TORs was graded by IWASH County Advisors during the third quarter of FY2014.

## Progress Report: IR3 – Improved Enabling Environment for WASH

### 9 WASH Policy Development, Improvement, and Dissemination

#### Implementation indicators and outcome indicators

Indicator	2014 Target	2014 Performance	LOP Target	Performance to date
3.1-3 A National CLTS Guideline developed and published with IWASH input.	0	0	1	1
3.3.2 Number of policy dissemination workshop conducted by IWASH at county and district levels	0	0	4	4

The IWASH Program continued to engage with national and local WASH stakeholders for the development, improvement and dissemination of policies to govern the sector for improved service delivery to the Liberian people. Within this context, IWASH supported the development of the National Guidelines on Hygiene Promotion. To help provide additional technical guidance, IWASH hired an international consultant with previous experience assisting countries in developing similar guidelines around hygiene promotion activities.

The aim of the National Guidelines is to establish a framework to ensure that advocacy and communication on appropriate hygiene behavior reaches all Liberians by 2017. Since completing work on this project, the guidelines have been validated by the Ministry of Health and Social Welfare. They are now being applied as the MoHSW seeks to better the lives of the Liberian people through behavioral change education.

# Progress Report: IR3 – Improved Enabling Environment for WASH

## 10 Water Point Functionality and Water Quality Data Management

### Implementation indicators and outcome indicators

Indicator	2014 Target	2014 Performance	LOP Target	Performance to date
3.2-1 Number of community water points on which water point reports are received regularly at the county level per quarter.		This activity has been removed from IWASH implementation plans.		This activity has been removed from IWASH implementation plans.
3.2-2 A national water quality electronic data base developed and capturing data from counties.	Abandoned	Abandoned	Abandoned	Abandoned

During the reporting period, IWASH launched a program designed to shift the responsibility to report on water point development from NGOs to the County WASH Coordinators. The program works to place the MPW WASH Coordinator at the center of water supply development and maintenance for the counties and utilizes the AKVO-FLOW system to update water supply information in real-time. Although AKVO-FLOW was initially created as an MPW project, County WASH Coordinators were not trained on the system. To remedy this, IWASH conducted a two-day workshop for county staff as well as key IWASH personnel on AKVO-FLOW technology for water point mapping. The workshop specifically targeted MPW WASH County Coordinators, CLTS County Focal Points and the Senior M&E Officer of IWASH.

The CLTS County Focal Points who attended the workshop received smart phones and the Lofa County Health Team received a water quality testing photometer kit. Arsenic testing kits were also provided to Ministry of Health participants from the three counties to take back to the EHTs who conduct the water quality tests for the counties.

The three month pilot program, initiated by the training, intended to put the county level ministry staff in control of water resource data to help develop and manage data at the county and district level for dissemination to the national level. This route for information would help to better inform planning for gaps, interventions and water point improvement. IWASH also intended to provide supplies to the trained teams and incentive payments to encourage data collection.

However, the second wave of the EVD outbreak in the counties halted the work as communities began to violently react to anyone approaching water points due to a rumor that people were poisoning water points with Ebola.

Once the outbreak is under control, IWASH intends to continue activities under this project.

## *Collaboration with Other WASH Sector Partners*

### **Joint Sector Review and Report**

The IWASH program participated in WASH Sector activities at both the national and sub-national levels including activities with the National Water, Sanitation and Hygiene Promotion Committee (NWSHPC), the CLTS National Technical Coordinating Unit, County and District Steering Committees, Natural Leaders Networks and Community Natural Leaders as well as General Community Health Volunteers (gCHVs). These interactions have led to critical improvements in water and sanitation such as moving communities to ODF status and improving water points at schools and clinics. Coordination with different sector actors has also improved the sanitation situation in selected depressed communities in Monrovia through the construction of public private latrines and has addressed other WASH issues related to equity, gender involvement and improvement in WASH issues.

IWASH provided material and financial support to, and participated in, the WASH Sector Performance Review which led to the development and publication of the first WASH Sector Report in Liberia. The report, which is a major milestone for the country, consolidates the available data on WASH and provides a foundation for discussion and reflection at the 2014 Joint Sector Review. The cover page of the report has photo credited to the IWASH Chief of Party and includes photos and success stories taken from activities implemented by the IWASH project in Bong, Nimba and Lofa.

### **WASH High Level Forum, Abidjan, Republic of Ivory Coast**

The IWASH Deputy Chief of Party, participated in the WASH High Level Forum that was held in the Ivorian Coast in November, 2014. A major achievement by the delegation was the signing of a Joint Country Program Agreement with Water and Sanitation for Africa (WSA), with the Pan African Inter-governmental Agency valued at over 31 million USD. The Agreement, which was negotiated by WASH sector technicians from several ministries including the Ministry of Public Works and Ministry of Finance prior to the forum, secured the largest investment for the WASH sector from a non-traditional funding source.

As part of the agreement, the Government of Liberia will commit 25% of the total program amount while WSA, through its resource mobilization strategies, will fund 75%. In February this year, the WASH sector launched a sector investment plan with \$400 million needed to achieve targets by 2017. The \$31 million CPA will boost resource mobilization efforts of the GoL and will help solve some of the Water Sanitation and Hygiene issues the people of Liberia are currently faced with.

IWASH in collaboration with the USAID-funded Liberia Municipal Water Project (LMWP) jointly supported the construction of an exhibition booth at the Forum and had on display, products and services that have been developed by WASH sector partners including IWASH and LMWP. A major WASH item displayed at the booth was samples of IWASH branded soap manufactured by IWASH-trained WASH Entrepreneurs which attracted many interested visitors.

### **Participation at the INGO Fair December 2013**

Global Communities joined other International NGOs in the country for the inaugural INGO Fair held in Monrovia in December 2013.

The goal of the fair, which will be held annually, is to highlight partnerships between International and Local NGOs. It also provides a forum for the Government of Liberia to push Liberia's Transformation Agenda forward. During the fair, The Vice President of the Republic of Liberia, His Excellency Joseph N. Boakai, visited IWASH booth and inspected WASH products displayed by the program. The Vice President also interacted with WASH Entrepreneurs and Natural Leaders trained by the IWASH project. Business members

from the community, the public and government ministers also attended the event and were able to see what local and international NGOs were doing throughout the country.

## 11. Ebola Response

IWASH has been involved in Ebola response from the first report of the outbreak in Lofa County and has expanded activities from provision of basic protective equipment and hygiene/disinfection supplies, localized in Lofa County, to broad activities at a national scale. The initial Ebola outbreak crossed into Liberia in the Foya district of Lofa County in late March this year and IWASH responded immediately by supporting health centers on the border with neighboring Guinea from where the disease originated. Led by the Chief of Party and members of the Lofa County health team, IWASH staff visited three frontline clinics, Suloramba Clinic, Porluma Clinic, and Mendikorma, as well as the Foya Bormah Hospital and the Foya community clinic in Foya city. The facilities and health care workers were supplied with needed supplies such as, soap, chlorine, WaterGuard, latex gloves, jerry cans, and nose masks. Prior to this simple intervention, there was a total lack of basic preventive materials at all the clinics and the hospital visited.

Following the distribution of these materials to the clinics, the team also commenced community awareness campaigns, expanding into Nimba and Bong counties. These activities engaged gCHVs and Natural Leaders in community education and sensitization about the importance of basic hygiene and safe behaviors to stop the transmission of the disease. The safe behavior messaging included do not shake hands, do not touch dead bodies (safe burial) and do not consume bush meat. The messages also encouraged people to contact local health workers as soon as anyone in the community became sick. In addition to focused community meetings and dialogue sessions, IWASH also aired radio spots in the counties to raise awareness and went out into the wider community on market days to spread correct information on EVD and prevention.

A listing of materials used and actions taken by county in the early response days from April to August is included below.

### Lofa County

Description of Activity	Counties			Total
	Voinjama	Foya	Kolahun	
Outreach to Health Facilities	0	5	2	7
Outreach to Schools	12	0	0	12
Outreach to Communities	0	2	0	2
Distribution of Medical Examination Gloves (pairs)	0	500	400	900
Distribution of Hand Washing Soap	0	135	30	165
Distribution of 70% Concentrated Chlorine (Cans)	0	10	4	14
Distribution of Hand Washing Posters	233	412	20	665
Distribution of Hand Washing T-shirts	108	94	30	232
Distribution of Jerry Cans	3	15	4	22
Distribution of WaterGuard (Cartons) 1 ctn = 24 bottles	0	19	0	19
Distribution of Chlorax (gals)	0	3	0	3
Distribution of Nose Masks	0	12	0	12
Distribution of Ebola Factsheet	50	0	0	50
Distribution of WaterGuard flyers	0	0	0	0

Training of Health workers, Natural Leaders (Sessions)	1	0	1	2
Training of NGO Partner Staff (Samaritan Purse)	0	1	0	1

## Bong County

Description of Activity	Counties		Total
	Panta-Kpai	Zota	
Outreach to Health Facilities	5	4	9
Outreach to Communities	5	4	9
Distribution of Hand Washing Soap	60	70	130
Distribution of Hand Washing Posters	64	60	124
Distribution of Hand Washing T-shirts	29	21	50
Distribution of Ebola Factsheet	160	124	284
Training of Health workers, Natural Leaders (Sessions)	4	5	9
Awareness in Communities and Markets	5	4	9

## Nimba County

Description of Activity	Nimba County		Total
	Sanniquellie-mah	Gbelleh-geh	
Outreach to Health Facilities	3	3	6
Outreach to Schools	0	2	2
Outreach to Communities	30	24	54
Distribution of Hand Washing Posters	0	55	55
Distribution of Ebola Factsheet	483	615	1098
Distribution of WaterGuard Flyers	402	360	762
Awareness in Communities and Markets	30	24	54

In July, as cases continued to increase in Lofa, IWASH teamed up with the Director of Community Health Services Tamba Boima, to launch a series of community education, dialogue, and action planning meetings. These meetings were conducted at the county level and the at each health catchment area to educate community leadership before engaging them in dialogue about the crisis and action planning for their communities. The meetings, particularly in Voinjama Health District, were effective in counteracting the denial of Ebola and resistance in community to engaging with the County Health Team (CHT). Based on this success, Global Communities applied to OFDA for a grant to expand this activity across Lofa, Nimba, and Bong Counties.

In the following months meetings were conducted in all catchments within the health districts of Lofa, Nimba and Bong, and Global Communities included several other response activities that grew out of the strong community based experience in IWASH: 1) safe burial team support, 2) contact tracing, 3) patient transport. All Global Communities' activities are implemented through the structure of the CHT to ensure a coordinated approach and the sustainability of lessons learned.

The table below provides an overview of the number of meetings held and communities reached during the second wave of activities. The more focused dialogue sessions included distribution of items successfully used to promote safe hygiene practices under the IWASH program including wrist bands reminding the wearer to wash their hands five times a day and posters.

**Bong, Lofa and Nimba Overview:**

<b>County</b>	<b>Number of Meetings Held</b>	<b>Number of Communities Attending (total)</b>	<b>Number of People Attending (total)</b>	<b>Number of Wrist Bands Distributed (total)</b>	<b>Ebola Posters Distributed</b>
Bong	13	275	883	109	785
Lofa	14	173	800	298	790
Nimba	7	83	445	77	253
<b>Total for all Counties</b>	<b>34</b>	<b>531</b>	<b>2128</b>	<b>484</b>	<b>1828</b>

Currently IWASH continues to engage in community mobilization through the proven model of community dialogue and action planning sessions. The program is also engaged in WASH activities which includes distribution of and training for hygiene kits and water supply repair at health clinics in Bong, Nimba, and Lofa.

With complementary support from OFDA, Global Communities is also supporting safe burial teams, contact tracing, and patient transport on a national level.

## 12. Endline Survey

The endline survey for the IWASH program was originally intended to provide impact information about IWASH behavior change activities that could not be measured otherwise. However, in light of the Ebola outbreak, the endline survey is now envisioned as an opportunity to understand how the interventions of IWASH have prepared the communities for EVD prevention. The program changed the behavior of community members with regard to sanitation and hygiene, but it also may have made them more receptive to health related messages from the CHT, represented by Natural Leaders, EHTs, and gCHVs. This combination of effects: 1) sanitation behaviors, 2) hygiene behaviors, and 3) responsiveness to health messaging, may have been contributing factors in why no ODF communities were affected by Ebola while their immediate neighbors have been some of the most affected communities in the country. The intention of the endline survey is to better understand the relationship between the IWASH interventions and the health outcomes of ODF community members during the Ebola outbreak.

A secondary focus will be to look at the WASH Entrepreneurs and how effective they have been in maintaining water sources. The survey will look at the sustainability of the role based on financial viability as well as the competence of the technicians and the level of awareness that communities have for WASH entrepreneurs to maintain water points.

In order to better assess these outcomes, the endline survey will be two fold. First, to try to fully measure the impact hygiene and sanitation promotion had on Ebola free communities, and to determine if these activities were the main avenues for breaking the transmission of EVD in communities, IWASH will conduct a series qualitative surveys. The assessments will be conducted at the community and local government level in areas such as Barkedu which not only saw some of the first cases and highest transmission rates of the virus but was also in close proximity to an IWASH, ODF community. Surveys will focus on key informant interviews with traditional leaders, such as the paramount and town chiefs, as well as gCHVs and the EHT who is responsible for overseeing the burial teams in the area. To better determine what differing practices may have led to EVD in one community and not another, questions will center on unhygienic burial and EVD care practices employed by the communities and perception of the communities' receptiveness to health messaging. From the interviews, numerators will begin to set the baseline for the types of practices that allowed the disease to spread rapidly in the communities and understand the role unhygienic and poor sanitation practices may have played.

Numerators will also conduct similar interviews in the IWASH, ODF communities that stayed Ebola free even as the virus affected the communities next door. The interviews will take place with the same key stakeholders; traditional leaders, gCHVs and EHT, in the ODF community. The comparison interviews will attempt to get to the basis of the connection between ODF, improved sanitation, receptiveness to health messages and the prevention of EVD.

Researchers will choose communities based not only on proximity to each other, but also on key factors such as comparable ethnic and religious backgrounds and the level of education and similar demographic composition between the communities. By ensuring similar base factors, the research will be able to better prove the connection between ODF and EVD prevention if any. The research team will also ensure the sample size is statistically sound and rule out any spillover effects from former projects in the area that may sway results.

The survey's shifted focus to Ebola-related questioning provides a more holistic approach in order to fully capture a communities understanding of CLTS, improved hygiene practices and how it can lead to a better quality of life. Numerators will ask ODF communities why they believe they are Ebola free. If it is due to increased hand washing, why do they think hand washing helped to prevent the virus from their community? This line of questioning will incorporate such indicators as 2.2-3: "Percentage of target group that believe that their neighbors consider washing hands with soap as a good cleanliness practice"

The endline survey will also look at the effectiveness of the WASH Entrepreneurs program in maintaining and increasing access to safe water point for the community and well as providing a continued revenue stream for the entrepreneurs past the life of the program. The IWASH program has built up a cadre of trained pump

technicians through the project who have also received small businesses training. The entrepreneurs are connected to ODF communities, providing new wells and repairing broken water points.

The endline survey will conduct interviews with both successful and unsuccessful entrepreneurs in an attempt to understand the level of competency and why some were more successful than others. Key informant interviews will also include the WASH Coordinators within the Ministry of Public Works (MPW) who are responsible for overseeing the water pumps within the counties, to gauge effectiveness of water sources installed by entrepreneurs.

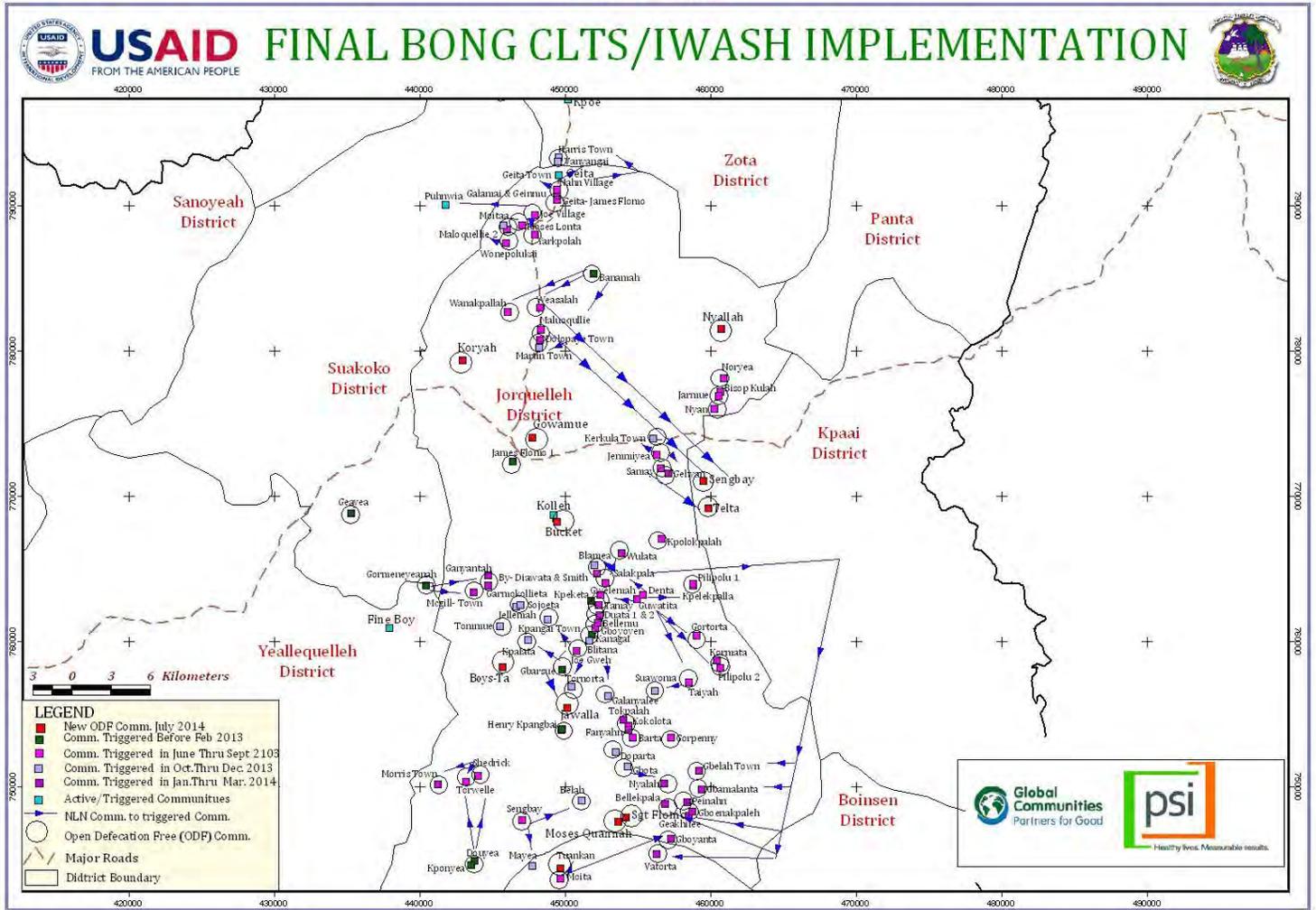
Furthermore, enumerators will conduct interviews in ODF communities to determine if previous beneficiaries know how to contact WASH entrepreneurs to maintain newly installed water points. The questions aim to prove sustainability of the project past the life of the program. Enumerators will conduct similar interviews in the neighboring communities in order to measure the spillover effect of the WASH entrepreneur network. Questions will differ slightly to try to determine if neighboring areas know to contact entrepreneurs to install new water sources. The outcome of the surveys will attempt to illustrate the reputation of the work done in ODF communities and the financial viability for entrepreneurs past the life of the program.

In addition to the topics outlined above, the study will also review life of project targets for reduced levels of diarrhea between target and non-target communities. The research will utilize county level data from DHS studies to see at what level the IWASH project and the message of improved sanitation practices had on reducing levels of diarrhea for the target population. Data from past DHS studies will be analyzed for communities under the IWASH program compared to non IWASH communities to identify potential trends.

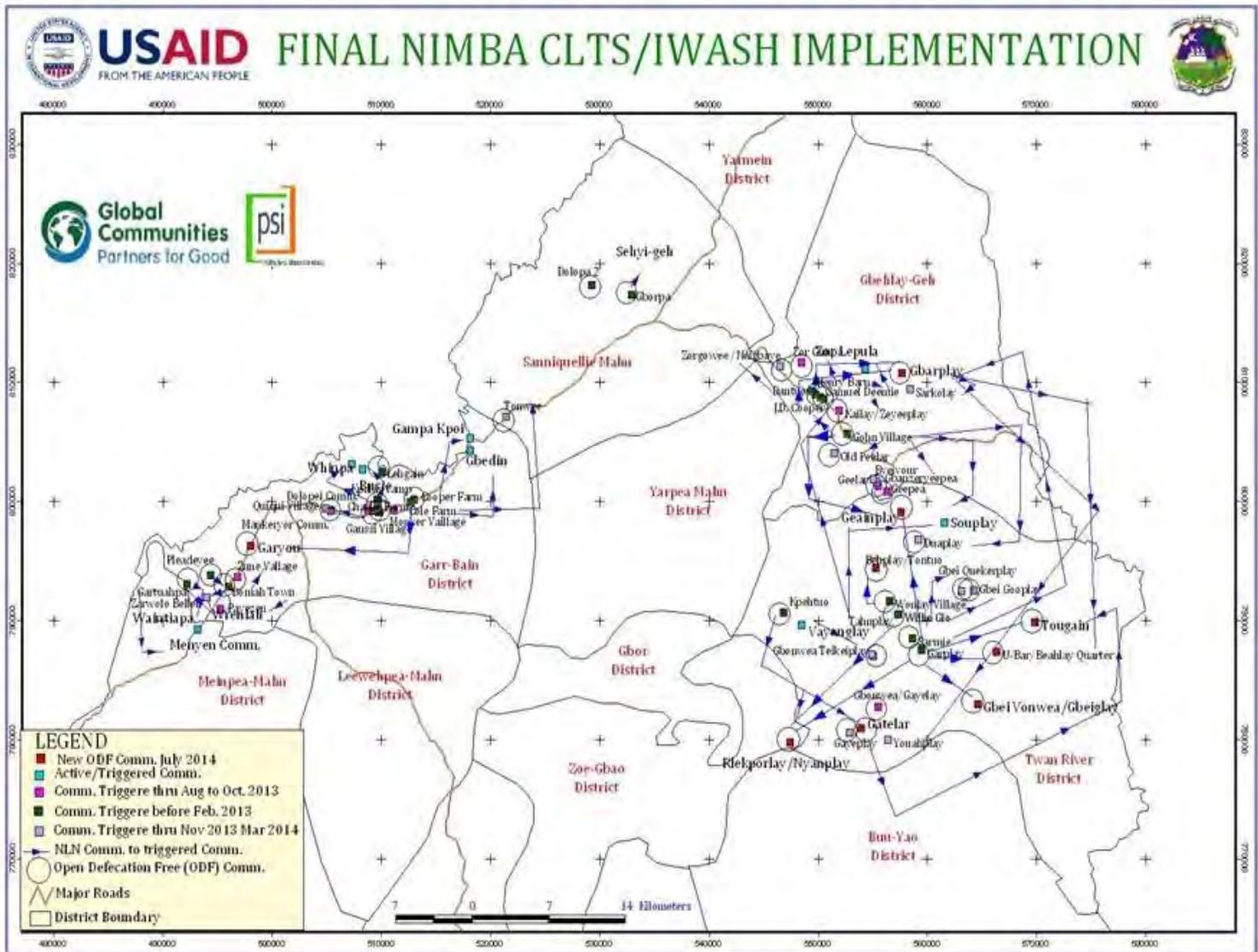
A sample of proposed questions for the endline survey is included in Annex VI. The survey will be conducted during January of 2015 and results will be included in the final report for IWASH.

# Annex I: Bong County CLTS Map

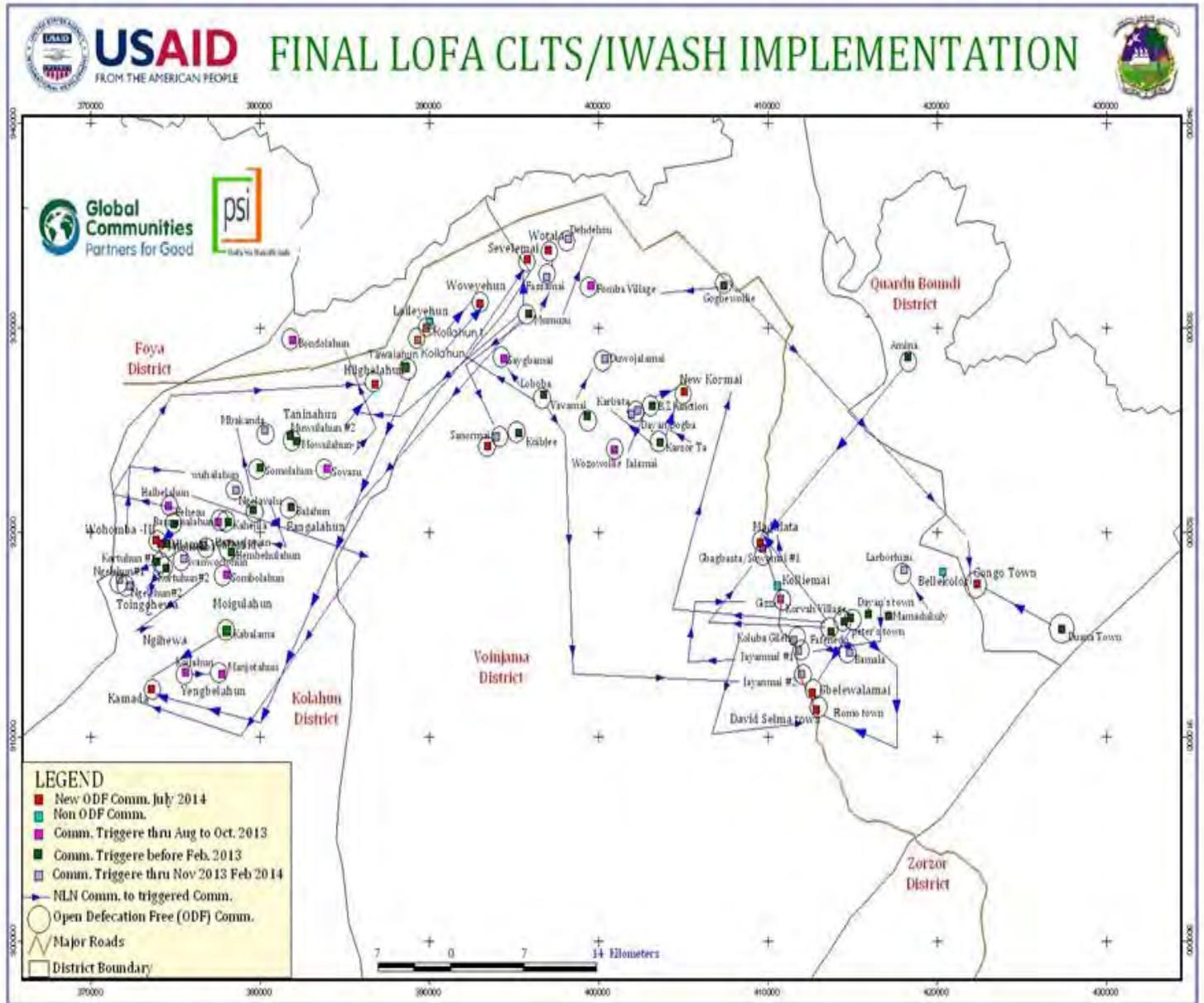
Global Communities/CHP



# Annex II: Nimba County CLTS Map



# Annex III: Lofa County CLTS Map



## Annex IV: Environmental Compliance

The purpose of this Annex is to present actions taken during the period to support compliance with draft EMMP and to respond to issues identified during USAID field trip in March 2014.

Actions taken to support compliance with draft EMMP:

1. Rehabilitation of Water Facilities: the environmental impact of concern is contamination of the water source and resultant negative health effects, mitigated by water quality testing. In IWASH counties the water quality labs lacked reagents for performing tests, so IWASH facilitated the EHTs from each county to travel to the national lab to acquire reagents. Since then testing has begun and within the next quarter all rehabilitated water sources will have water quality test results.
2. Construction & Operation of New Water Points: Construction of new water points began in March and each contractor was briefed on the need to minimize disturbances to vegetation, to use excess soil in drainage berms, to practice safe digging practices (covering wells when not digging), and to practice good personal hygiene, particularly once the aquifer is reached. The siting of the wells was in accordance with the Technical WASH Guidelines for Liberia – minimum distances from latrines and other sources of contamination observed.
3. Urban Latrines - Construction: No new urban latrine construction was undertaken during this period, but a remediation measure was taken to ensure that latrines constructed in a prior period conformed to best environmental practices as described in Section 3 PPP Urban Latrines. The septic tanks for New Georgia Estates and Logan Town latrines were designed to allow fluid from the septic tanks to percolate into the soil. Given the shallow aquifer in these areas, this design has a potential to contaminate the groundwater. During the reporting period the septic tanks were opened and sealed with a concrete slab floor. Designs for the three new latrines have sealed septic tanks.
4. Urban Latrines – Operation: The septage collection from New Georgia Estates and Logan Town is performed by only licensed sanitary disposal companies. The New Georgia Estates operator is a licensed sanitary disposal company and Global Communities has seen the collection invoices from the Logan Town latrine operations.
5. Construction of Household Latrines through CLTS: 1) proper latrines siting is an activity that all IWASH CLTS staff and Natural Leader Network members are well trained in, it is an integral part of the triggering procedure during community mapping and action planning. 2) The issues of safety for the latrines user arising from material selection and construction method are significantly mitigated by encouraging the use of an innovative “Slabless VIP Latrine” that does not put the user over the pit, but located the pit behind the superstructure containing the “toilet bowl”. This can be seen in Annex V: WASH Products and Services Guide. 3) Hand washing station drainage is emphasized in Natural Leader Training exercises and reviewed during monitoring visits as well as verification trips. Given the intensive rainfall during the rainy season, these drainage structures must be periodically maintained.

Response to issues identified in the USAID field trip:

## Bong County Visit

No.	Site Visited	Intervention	Issues to address	Actions taken
1	Banama Village	CLTS and Hand dug well construction	1. Display USAID Logo	USAID signage printed and deployed at county office awaiting screwing to facility
2	Kpai Pub. School	Hand dug well and school Latrine	<ol style="list-style-type: none"> <li>1. Complete landscaping around latrine.</li> <li>2. Install hand washing station</li> <li>3. Display USAID Logo</li> </ol>	<ol style="list-style-type: none"> <li>1. Landscaping Completed</li> <li>2. School instructed to build platform with bush sticks to put hand washing facility provided by IWASH</li> <li>3. USAID signage printed and deployed at county office awaiting screwing to facility</li> </ol>
3	Moses Lonta Village	CLTS	Community clean but lack safe drinking water source.	Construction of a hand dug well in progress. Have dug to aquifer and started molding culverts.
4	JS Clarke Public School, Gbarnga	Hand Dug well	<ol style="list-style-type: none"> <li>1. To clear dirt around hand pump.</li> <li>2. Display USAID Logo</li> </ol>	<ol style="list-style-type: none"> <li>1. Landscaping around hand pump done</li> <li>2. USAID signage printed and deployed at county office awaiting screwing to facility</li> </ol>
5	Bassa Community, Gbarnga	Hand dug well	<ol style="list-style-type: none"> <li>1. Sign of erosion closer to apron</li> <li>2. Display USAID Logo</li> </ol>	<ol style="list-style-type: none"> <li>1. Community collecting funds to cast drainage path</li> <li>2. USAID signage printed and deployed at county office awaiting screwing to facility</li> </ol>
6	Bethany Lutheran School, Suakoko	School latrine and hand pump that was disqualified by county authorities.	<ol style="list-style-type: none"> <li>1. Install hand washing facility.</li> <li>2. Build pedestal up to put water containers</li> <li>3. Display USAID Logo</li> </ol>	<ol style="list-style-type: none"> <li>1. School authorities engaged to build a platform to seat hand washing facility provided by IWASH.</li> <li>2. Well pedestal constructed by IWASH</li> <li>3. USAID signage printed and deployed at county office awaiting screwing to facility</li> </ol>

## Lofa Visit

No.	Site Visited	Intervention	Issues to address	Actions taken
Voinjama District --- 17 <sup>th</sup> March				
1	Tenebu	Hand dug well in community and school latrine in Public school	<ol style="list-style-type: none"> <li>1. No hand washing at school latrine</li> <li>2. Inside of latrine dirty</li> <li>3. Erosion closer to latrine</li> <li>4. No USAID visibility at community well site</li> </ol>	<ol style="list-style-type: none"> <li>1. Gave instruction to school principal to build scaffold from local materials for hand washing facility provided by IWASH.</li> <li>2. School health club activated to take care of latrine cleanliness</li> <li>3. School and PTA were advised to haul rocks in erosion pathway</li> <li>4. USAID signage printed and deployed at county office awaiting screwing to facility</li> </ol>
2	Kolliemai	School Latrine and CLTS in progress	<ol style="list-style-type: none"> <li>1. No hand washing facility at school latrine</li> <li>2. No proper landscaping done at latrine site by contractor</li> <li>3. No USAID logo on facility</li> </ol>	<ol style="list-style-type: none"> <li>1. Gave instruction to school principal to build scaffold from local materials for hand washing facility provided by IWASH</li> <li>2. School health club activated to take care of latrine cleanliness</li> <li>3. USAID signage printed and deployed at county office awaiting screwing to facility</li> </ol>
3	SDA Elem. and Junior High School	School latrine	<ol style="list-style-type: none"> <li>1. No hand washing facility in use</li> <li>2. Crack in front wall</li> </ol>	<ol style="list-style-type: none"> <li>1. Gave instruction to school principal to build scaffold from local materials for hand washing facility provided by IWASH.</li> <li>2. Nothing done yet to address crack in wall</li> </ol>
Kolahun District – 18 <sup>th</sup> March				
1	Popalahun Public School	School latrine	<ol style="list-style-type: none"> <li>1. No hand washing facility in use</li> <li>2. No USAID Visibility</li> </ol>	<ol style="list-style-type: none"> <li>1. Gave instruction to school principal to build scaffold from local materials for hand washing facility provided by IWASH</li> </ol>

				2. USAID signage printed and deployed at county office awaiting screwing to facility
2	Massabolahun Community	Hand Dug well	No USAID visibility	USAID signage printed and deployed at county office awaiting screwing to facility
3	Hassagolowan Village	CLTS and Hand Dug well	<ol style="list-style-type: none"> <li>1. Fence wall not closed</li> <li>2. Poor mortar work done on pedestal where containers are placed to fetch water</li> <li>3. No USAID visibility</li> </ol>	<ol style="list-style-type: none"> <li>1. Community closed fence</li> <li>2. USAID signage printed and deployed at county office awaiting screwing to facility</li> </ol>

# Annex V: Latrine Construction, Paynesville

PCC, Latrine Construction



## Weh Town, Latrine Construction



## King Gray, Latrine Construction



## Annex VI: Proposed Research Questions for Reformatted Endline Survey

1. Can any differences be documented between IWASH and non-IWASH communities on the following variables:
  - A. Access to and use of clean water and sanitation facilities
  - B. Key Sanitation practices
  - C. Key hygiene practices (i.e. hand washing at appropriate times, proper disposal of feces)
  - D. Key sanitation and hygiene knowledge
  - E. Access to health messages (i.e. radio broadcast, health pamphlets, etc)
  - F. Access to health services
  - G. Burial practices
  - H. General health status (prevalence of diarrheal disease, levels of malnutrition – DHS data available?)
  - I. ODF/CLTS status
  - J. Attitudes towards government (i.e. willingness of people to take seriously public health orders and messages)
  - K. Involvement of government, including existence of WASH policies and guidelines
2. Can any of these differences be attributed to the IWASH program?
3. Is there a difference in the prevalence of Ebola between target IWASH and control communities?
4. If prevalence rates vary, can this variances be attributed to IWASH? Why or why not?
5. How do communities differ based on religion, ethnicity, tribe or other grouping? Does this reflect difference between target and control communities?
6. Are there differences in governance of target and control communities, in terms of district/county government or traditional leaders/village chiefs?
7. What other programs exist in the area that could have had a spillover effect in target or control communities? Were there any WASH programs in areas prior to IWASH?
8. Are there differences in how control and beneficiary communities responded to Ebola crisis? If so, what were they?