

## **West Africa Water Supply, Sanitation and Hygiene Program (USAID WA-WASH)**

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### **CARE GHANA OUTCOME HARVEST REPORT:**

### **WEST AFRICAN WATER SUPPLY, SANITATION, AND HYGIENE PROGRAM (WA-WASH) PROJECT EVALUATION 2015**

**August 2015**

# **CARE Ghana Outcome Harvest Report: West African Water Supply, Sanitation, and Hygiene Program (WA-WASH) Project Evaluation 2015**

This publication was funded by the people of the United States through the Agency for International Development (USAID) within the framework of the West Africa Water Supply, Sanitation and Hygiene (USAID WA-WASH) Program. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Agency for International Development of the United States Government.

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## 1. INTRODUCTION

In order to meet the interconnected socio-economic needs of poor communities in Ghana's Upper West Region, CARE began implementing the WA-WASH project<sup>1</sup> in 2012. The project had an ultimate goal of improving water, sanitation and hygiene (WASH) but also addressed issues of food security, gender equity and climate change adaptation the 21 implementation communities. Overall, WA-WASH Ghana had six intervention areas:

- Improved access to safe drinking water
  - Borehole construction, water committees, and establishing water levies
    - Implemented in 6 communities
- Access to improved sanitation facilities, improved personal and environmental hygiene in communities
  - CLTS (Community-Led Total Sanitation), including latrine construction and research, hand washing demonstrations, hand washing stations (tippy taps), and collaboration with community leaders and chiefs
    - Implemented in 28 communities
- Gender equity
  - Village Savings Loans Associations (VSLAs), Gender male champions, engagement with traditional leaders, and developing community level action plans and awareness-raising activities
    - Implemented in 10 communities
- Improved access to WASH in schools (WinS)
  - Teacher training on hygiene and sanitation, new or rehabilitated latrines construction and hand washing stations
    - Implemented in 15 schools
- Food security
  - Land for farming activities, livestock production (distribution of goats and sheep), training for livestock owners on animal husbandry, training on crop production, demonstration farms including dry season gardening, water use facilitation (e.g. solar water pump, storage barrels)
    - Implemented in 7 communities

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<sup>1</sup> "The primary goal of the USAID West Africa Water Supply, Sanitation and Hygiene Program (WA-WASH) is to increase sustainable access to safe water and sanitation and improve hygiene in West Africa. This four-year (2011-2015) program will accomplish its objectives by introducing innovative and low-cost water and sanitation technologies and promoting adequate hygienic behaviors at community level; by developing practical models of sustainable WASH service delivery; by facilitating cooperation and creating synergies between WA-WASH and other relevant USAID/West Africa programs and priorities in the region; by increasing the capacity of national and regional institutions to replicate these approaches and models throughout the region; and by facilitating knowledge sharing among the WA-WASH countries (Burkina Faso, Ghana and Niger) and beyond." (wawash.fiu.edu)

- Climate change
  - Capacity building to develop community action plans for climate change
    - Implemented in 10 communities

### *What is Outcome Harvesting?*

The Outcome Harvest method is particularly helpful in analyzing outcomes of a project, rather than focusing on activities and interventions. It works *backwards* from the outcomes to interventions and activities that contributed to the outcomes. This is the opposite of traditional monitoring and evaluation methods that start from the intervention or programming area and look at outcomes that resulted from those interventions. Because of this 'backwards' thought process, Outcome Harvesting is helpful in complex programming contexts where multiple intervention areas may contribute to one outcome. More information on Outcome Harvesting can be found in *Outcome Harvesting*, a Ford Foundation report, revised November 2013 and written in 2012 by Ricardo Wilson-Grau and Heather Britt.

### *How does Outcome Harvesting apply to this WA-WASH Project Evaluation?*

The goal of this Outcome Harvest is to **determine what social, economic, health, and behavioral outcomes at the household and community levels have resulted from the 6 intervention areas of the WA-WASH program in the Upper West region of Ghana.**

This Outcome Harvest aims to capture the *changes* in social norms, economic and social status, and behavior as a result of WA-WASH in the Upper West region of Ghana. These changes may be the result of one initiative or intervention area, or many. The changes identified through this research influence the quality of life of the individuals and the community, and may be addressed through indicators such as health, socio-economic status, gender relations and women's empowerment, privacy, cleanliness, safety, education, and impact on the environment.

Since the research was conducted at the end of the WA-WASH program in July 2015, this Outcome Harvest will assess the overall significance and contribution of CARE Ghana's interventions. It is a qualitative analysis of outcomes, and should complement other qualitative and quantitative end-line analysis and results. These reports include but are not limited to the *Gender and Women's Empowerment Outcome Study Report*.

## 2. METHODS

The Outcome Harvest methodology was used to guide the outcome assessment. In the Outcome Harvesting methodology, the investigator first identifies outcomes, defined as any changes seen among project participants. The outcomes are identified using qualitative and quantitative data collection methods and through a review of previous reports and related documents. These outcomes could be planned or unplanned, positive or negative. The investigator then determines how the change agent, in this case CARE Ghana, contributed to the outcomes.

An Outcome Harvest answers the following questions:

- What is the observable, verifiable change that can be seen in the individual, group, or community? What is being done differently that is significant?
- How was this change implemented? What change agents were responsible?
- Why does this change matter?

The results of outcome harvest include Key *Outcomes* and the *Contribution* and *Significance* of those outcomes.

Outcome: These are *practices, behaviors* and *thought processes* that have led to tangible changes or actions. Outcomes identify *who* CARE has influenced to change *what*, and *when* and *where* it changed.

Contribution: *How* did CARE and other organizations/people contribute to this change? Concretely, what did they do to influence the change?

Significance: *Why* does this outcome matter?

The following ‘useful questions’ guided this research and interview tools:

- How has the project changed health, hygiene and sanitation behaviors of participants?
- How has the project influenced the food and livelihood security practices of participants?
- How has the project changed gender relations and gender equity?
- How has the project changed participants’ capacity (knowledge and skills) for improving their lives?
- How has the project influenced social structures (relationships, community institutions) and/or social capital (trust, networks, group membership?)
- What negative or unexpected outcomes happened as a result of project activity? How can we learn from these outcomes?

For data collection and reporting, the useful questions were organized into 5 Outcome Areas:

- Health, Hygiene and Sanitation
- Food and Livelihood Security
- Gender Equity
- Knowledge and Skills
- Social Structures and Relationships.

The ‘useful questions’ were answered from the perspective of CARE staff, community leaders, and community members. Interview tools can be found in *Appendix C*.

CARE staff includes field officers, Monitoring and Evaluation officers, and program managers. Community leaders include Male Gender Champions, CLTS Natural Leaders<sup>2</sup>, VLSA<sup>3</sup> committee leaders, WATSAN<sup>4</sup> committee members, local latrine artisans, and others. Community members include anyone who benefited from CARE interventions or community interventions as a result of the WA-WASH program. *Appendix B* shows all communities participating in WA-WASH Ghana, which communities were interviewed for this research, and what projects were implemented in each community.

*Individual interviews* were conducted with two community leaders from each community for a total of 12 interviews. The interview guide addressed social, economic, and behavioral changes at the household (personal) and community level.

*Focus group discussions* were conducted with CARE staff and community members, each with separate guides for discussion. Focus group discussions will be based on the ‘useful questions’ outlined above, in order to most accurately represent outcomes, both positive and negative, and the contribution of CARE to those outcomes. One focus group of eight people was conducted in each community, for a total of 48 participants. One focus group of all five CARE staff was also conducted.

*Case studies* were developed from case-study specific individual interview data collected. Each case study is based on the individual experience of one community leader, and may address both household and community level changes. A total of three individuals were interviewed for case studies.

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<sup>2</sup> Community elected leaders, both men and women, who share WASH education, encourage behavior change, and address gender issues in their communities

<sup>3</sup> Self-managing groups of 15 to 25 people that provide people with a safe way to save their money, access small loans, and obtain emergency insurance

<sup>4</sup> Community-led WASH teams dedicated to educating and maintaining WASH behavior changes

The data from individual interviews, focus group discussions, and case studies were verified with documents on midterm and other reports of the WA-WASH program, as well as compared to focus group discussions conducted by the WA-WASH End-line Evaluation Researcher.

Due to the time consuming nature of interviews, our sample size was limited to 6 communities, 12 community leaders, 48 community members, 3 case study individuals, and one WinS Secondary school interview. This gave us adequate variety and opportunity for qualitative confirmation of outcomes across communities. However, this qualitative analysis should be paired with quantitative end line reports, which use other evaluative methods to assess the magnitude of these outcomes.

The final report outlines the key outcomes identified and also provides sections on observations and future recommendations. Each key outcome identified is explained using the following attributes: Description, Contribution, and Significance. *Appendix A* contains 3 case studies.

### 3. RESULTS

#### 3.1 HEALTH, HYGIENE AND SANITATION

**Useful Question:** How has WA-WASH changed health, hygiene, and sanitation behaviors among men, women and children?

**Response:** Changes in sanitation and hygiene behaviors led to improvements in health in WA-WASH communities. Diarrhea, vomiting, stomach pains, and malaria prevalence were all perceived to have decreased. Boreholes were also important in improving water quality and health. Outcomes A through C describe changes in health, hygiene and sanitation behaviors in detail.

#### Outcome A: WASH Behavior Change

**Description:** From early 2014 through 2015, all six<sup>5</sup> interviewed WA-WASH communities in the Upper West region of Ghana adopted a range of WASH related behaviors such as treating their water with Aquatabs, building and maintaining latrines, constructing tippy taps, improving personal and environmental hygiene, and properly preparing and storing food. Along with better availability of safe water through borehole construction, respondents from all six communities credited these changes for causing a reduction in the prevalence of diarrhea,

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<sup>5</sup> Brifo-Maal, Kaba-Tanzu, Berwong, Tabier, Torkuu, and Zindagawn



vomiting, and stomach pains. Interviewees reported that these changes benefited everyone in the community, especially children, and were seen at the household and community level.

Natural Leaders, WATSAN committee members, chiefs and other traditional leaders<sup>5</sup> took on leadership roles in sharing hygiene and sanitation education, and enforcing the changes at the household and community levels. Some participants also used Village Savings and Loans Associations (VSLA) funds to purchase health insurance for themselves and their children, contributing to a decrease in stress and money spent when they do fall ill.

This outcome demonstrates how community leaders and members took responsibility for the hygiene and sanitation of their community, leading to positive health results. They also recognized a direct link between hygiene and sanitation changes and their resulting health improvements.

**Significance:** Access to clean water, proper sanitation, and hygiene practices is limited in the Upper West region of Ghana. Most communities do not have latrines, handwashing is not regularly practiced, and many communities still take water from contaminated rivers or uncovered wells. Drinking water from contaminated sources is known to contribute to waterborne illnesses and intestinal worms, with symptoms like diarrhea, vomiting, stunting in children, and anemia. Through the combined efforts of NGOs, local government agencies, and community leaders and members, WA-WASH was able to improve access to clean water, latrines, and handwashing facilities with the ultimate outcome of improving health.

**Contribution:** WA-WASH program partners CARE and PRUDA<sup>6</sup> were identified as the original source of changes in hygiene and sanitation. They provided education on latrine construction, soak-away construction, handwashing education and tippy tap construction, and safe food preparation and storage. The District Assembly Environmental Health Unit was also identified as a key player in education and enabling discussions on sanitation issues. CARE provided the initial triggering activities, and offered consistent support in the form of meetings with the community and community leaders.

WATSAN committees elected approximately 7 officials: a chairperson, secretary, treasurer, community organizer, hygiene promoter, and two pump caretakers. They led the education and enforcement of WASH changes in their communities.

CARE and other WA-WASH partners (e.g. WINROCK<sup>7</sup>) provided boreholes in three<sup>8</sup> of the interviewed communities. One community, Zindagawn, pulled together money as a community

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<sup>6</sup> Partnership for Rural Development Action

<sup>7</sup> Winrock International, a nonprofit based in Little Rock, Arkansas that works internationally

<sup>8</sup> Brifo-Maal, Berwong, and Tabier

to construct a borehole. CARE also provided plastic gallons for tippy tap construction. APDO<sup>9</sup> provided Aquatabs<sup>10</sup>.

CARE gave specific training on latrine construction to latrine artisans<sup>11</sup>, who helped community members construct their latrines at no charge. CARE also provided tools for latrine construction to the latrine artisans.

## Outcome B: Malaria Prevention

**Description:** Five interviewed communities<sup>12</sup> constructed soak-aways to drain away excess water from bathing houses and started using mosquito nets. This was noted as leading to a decrease in malaria in the rainy season of 2014. However, there was significant confusion in some communities about malaria transmission. At least two communities thought that malaria decreased because of latrine usage, since mosquitoes were no longer landing on feces and spreading disease to humans. This is an area of health education that may need to be addressed more clearly in the future.

**Significance:** Malaria is a major contributor to illness and death in children and adults in the Upper West region of Ghana. This outcome demonstrates the importance of cross collaboration between organizations in the effort to decrease malaria and improve community and individual health.

**Contribution:** UNICEF provided bed nets and CARE offered education on soak-away construction. Community leaders encouraged the use of both bed nets and soak-aways. From the information we gathered, it is impossible to determine the exact cause of the decrease in malaria, but we can speculate. Soak-away construction could have decreased the number of temporary breeding ground for mosquitoes, which could have led to a decrease in malaria prevalence. Use of malaria nets could have decrease the exposure time of people to malaria-carrying mosquitoes. Environmental conditions of 2014 could have also played a role in mosquito proliferation and the spread of malaria.

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<sup>9</sup> Afram Plains Development Organization, an NGO based in Eastern Ghana

<sup>10</sup> A brand of water purification tablet

<sup>11</sup> Masons trained specifically in the construction of latrines using locally available materials

<sup>12</sup> Kaba-Tanzu, Berwong, Tabier, Torkuu, and Zindagawn

## Outcome C: WASH Behavior Change in Schools

**Description:** Students have increased hand-washing, incorporated WASH knowledge into everyday life and schoolwork, and are working to achieve Open Defecation Free status as a result of WA-WASH initiatives from 2013 to 2015. WASH initiatives were introduced to 13 primary and secondary schools in the Upper West region. One secondary school in Bagri was interviewed and the results are detailed in Case Study 3.

**Significance:** Children are most affected by waterborne diseases. These diseases can make them sick, decrease their nutritional status, keep them from school, and prevent them from reaching their full mental and physical potential. By addressing WASH in schools, students are empowered to learn about and prevent waterborne illnesses in their own classroom and communities. Over time, they can bring these lessons home, where siblings, family members, and future children can benefit from their WASH education. Starting early not only benefits the participant children, but also has the potential to benefit their families and futures.

**Contribution:** CARE assisted in the building and rehabilitation of latrines, and provided schools with WASH teaching aids and handwashing stations. CARE also provided WASH education training to all teachers, including the School Health Education Program Teacher (SHEP). Teachers encouraged students to wash their hands and use latrines with daily hygiene talks and weekly hygiene checks. Students maintain the latrines, urinal pits, and handwashing stations through regular cleanings and ensuring clean water and soap are always available.

### 3.2 FOOD AND LIVELIHOOD SECURITY

**Useful Question:** How has WA-WASH influenced the food and livelihood security practices of participants?

**Response:** Overall, most communities did not experience changes in food security in terms of crop production, yield, or variety. Some communities used VSLA money to purchase food and agriculture inputs and one community started a community garden around their borehole. It is important to note that data was collected during the dry season when food is limited. Education on agriculture production also had not been implemented, since the rains had not come in full yet at the time of the interviews. Additional food security outcomes may be realized in the coming months, but there is significant room for improvement on implementing food security initiatives.

*Outcome D through Outcome G describe the food and livelihood security outcomes in detail.*

## Outcome D: Nutritional Improvements

**Description:** Community members and leaders of Brifo-Maal identified vegetable gardening as contributing to nutritional improvements during the dry season of 2014 to 2015. The new community vegetable gardens provided more variety in their diet. Women were responsible for the garden, regularly watering, weeding and harvesting. These improvements primarily benefited women and children, since they were the ones consuming the majority of the vegetables. The vegetable gardens during the dry season were possible because of the water available from the new borehole. Before the borehole, gardening was not practiced.

**Significance:** Agriculture is the foundation of villages in the Upper West region of Ghana. While some people have a trade, for example livestock raising or pito<sup>13</sup> brewing, all community members are farmers in addition to their trade. During the dry season, there is a period of food insecurity when community members use food from the previous year's harvest. Climate change is exacerbating food insecurity in this already dry region. With access to a borehole, from which water is used for gardening, communities can extend their food security into the dry season.

**Contribution:** CARE constructed the borehole in Brifo-Maal. According to CARE staff, three other WA-WASH communities not interviewed<sup>14</sup> began dry season gardens and received garden training and gardening materials. Community-Based Extension Agents (CBEAs) from the District Assembly provided education on gardening practices.

## OUTCOME E: VSLA Funds for Food and Agriculture Inputs

**Description:** Three interviewed communities, Brifo-Maal, Berwong and Tabier, used VSLA funds to purchase staple food during the dry season when food was running out from the previous rainy season. Women in Brifo-Maal sometimes used VSLA savings on fertilizer and agriculture inputs. While many people used VSLA savings for food, only a few used VSLA savings for agriculture inputs. This outcome emphasizes the importance of the VSLA in affecting the food security of some community members, mostly through an increase in savings to pay for food and agricultural inputs.

**Significance:** Agriculture is the foundation of villages in the Upper West region of Ghana. While some people have a trade, for example livestock raising or pito brewing<sup>15</sup>, all community members are farmers in addition to their trade. During the dry season, there is a period of food insecurity when community members use food from the previous year's harvest. Climate

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<sup>13</sup> Pito is a locally brewed alcoholic or non-alcoholic drink made from grain

<sup>14</sup> Meguo, Mantari, and Venne

<sup>15</sup> Pito is a locally brewed alcoholic or non-alcoholic drink made from grain

change is exacerbating food insecurity in this already dry region. With access to VLSA savings, community members were able to add to the quantity of food available during the dry season and increase their access to agriculture inputs.

**Contribution:** CARE and PRUDA were identified as introducing the VSLA concept, with the help of the District Assembly. They held frequent meetings, from once to twice a month, to ensure the VSLA was functioning properly. The VSLA groups meet weekly. More detailed information on the VSLA is outlined in *OUTCOME I*.

## **OUTCOME F: No Changes in Food Security Behaviors**

**Description:** Three of the interviewed communities<sup>16</sup> did not change any food security behaviors, and experienced no positive food security changes.

**None of the interviewed communities experienced changes in crop yields, variety or quality.** This may be due to delayed agriculture education in 2014, so any effects on food security may not be seen until late 2015 after the rainy season.

Overall, outcomes on food security were limited to a few communities that took the initiative to create gardens, or limited to the effects of the VSLA on individual spending money for food. All six communities noted that food was scarce during the time of the interviews. It was right before rainy season and food had been depleted from last year's harvest. The rains were also late and less plentiful than usual, indicating climate constraints on food production.

**Significance:** Food security is still a major issue in the Upper West region of Ghana. With climate change affecting yearly crop production, projects will need to continue to address food security issues if they want to see improved outcomes. Focusing on VSLA savings and borehole construction paired with gardening education may be the best way to incorporate food security into projects like WA-WASH.

**Contribution:** Agriculture Extension workers from the District Assembly as well as CARE staff provided education on improved crop planting, harvest and storage methods in late 2014.

## **Outcome G: Goats for Improved Livelihoods**

**Description:** In one interviewed community, Brifo-Maal, each VSLA member was given two goats in 2014. Some community members used the opportunity of receiving goats for business and trade and became goat herders, improving their livelihoods. Some people sold

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<sup>16</sup> Kaba-Tanzu, Zindagawn, and Torkuu

their goats for income, and some goats died. Since most community members were VSLA members, almost everyone in the community, regardless of gender or economic status, received goats. The goats could be used as food during special occasions, or as savings for a time of need when they could be sold. The project trained at least one community member as a **Community Livestock Worker (CLW) to educate community members on proper livestock care**. CLWs, both men and women, were educated on de-worming, castration, and care of their animals.

**Significance:** This outcome demonstrates the effect of VSLAs on economic and food security. Livelihoods were also improved through the introduction of the new livestock trade. The distribution of goats also brought gender equity into food security initiatives, ensuring equal participation and impact on both men and women. Before community members were provided goats, only men were allowed to own livestock and sell them for their own profit. Since both men and women were VSLA members, both men and women received goats.

**Contribution:** CARE provided VSLA members with goats. They followed up with animal owners to make sure the animals were cared for properly, and to see if they had reproduced. CARE also provided trainings to CLWs on animal care.

### 3.3 GENDER EQUITY

**Useful Question:** How has WA-WASH changed gender relations and gender equity?

Response: Gender equity interventions and education led to drastic improvements in relationships between men and women, economic security for women, and community participation of women. Most of these changes were attributed to education through VSLAs meetings.

While there were significant improvements in gender relationships due to the project's work in gender equity, *there was no direct mention of the effects of WASH interventions on women's workload, privacy, or quality of life*, outcomes that are of great interest to CARE and partnering organizations. These effects may be difficult to assess qualitatively, and it is important to look at results from quantitative end-line research to determine associations.

*Outcome H* through *Outcome J* describe the gender equity outcomes in detail.

## Outcome H: Improvements in Gender Relationships

**Description:** In early 2014, all six interviewed communities began seeing significant improvements in gender relationships at the household and community levels: At the household level, husbands and wives were no longer arguing, communication improved, traditionally female responsibilities – including fetching water, cooking, and bathing the children – were shared by men, and men no longer used physical violence against their wives. At the community level, women took leadership roles like participating in WASH committees, and women were invited to sit with the men and participate in discussions around community issues. Overall, people self-reported an increased sense of unity between men and women that did not exist before. There was a lot of male engagement to empower women, primarily through education. For women, empowerment came in the form of access to resources and leadership opportunities in addition to male engagement in the issues. Men were educated on the importance of gender equity through leaders like the Male Gender Champions, and therefore took responsibility for improving gender outcomes alongside women. Improvements in equal decision-making and civic participation for women were seen as the most important changes.

These changes were often attributed to the start of the VSLA. With the VSLA, weekly meetings created a forum to discuss gender issues and address inequalities. More information on VSLA economic and gender equity outcomes can be found in OUTCOME J.

**Significance:** In the Upper West region of Ghana, women and men traditionally have distinct roles and responsibilities in the community and household. These expectations often lead to inequality for women in terms of decision making, income generation, land ownership, household chores, leadership roles, and participation in community initiatives. By directly addressing these distinct roles and the inequalities they create, the WA-WASH project was able to break through traditional behaviors and create a more equal environment and opportunities for women.

**Contribution:** CARE, the District Assembly Gender Focus leader, Natural Leaders, traditional leaders, and Male Gender Champions<sup>17</sup> were identified as catalyzing the education on gender equity.

WA-WASH partners initially conducted a gender analysis to identify unmet practical and strategic gender needs related to WA-WASH. Gender Action Research was also conducted, and involved a Gender Analysis Snapshot (GAS) and Governance into Functionality Tool (GiFT). The analyses served as the basis for developing gender equity initiatives and were applied to

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<sup>17</sup> Gender Champions were chosen to serve as leaders on gender issues in their communities. They are all men, and emphasized men as partners in addressing gender equity

creating Community Gender Action Plans (CGAPs) in each community using community-led participatory processes.

When forming committees like VSLAs and WATSAN, CARE encouraged the community to choose both women and men for leadership positions instead of only one gender. CARE also introduced the VSLAs, which served as a platform for new information on gender to be discussed. The Gender Champions and traditional leaders were the most influential in offering consistent discussion on gender issues, as well as serving as moderators when husbands and wives argued or there was a dispute in a community meeting. By focusing on men as partners, Male Gender Champions were especially important in changing perceptions around gender.

Workshops at the District Assembly and meetings in each community were conducted with the sole purpose of discussing gender issues.

### Outcome I: Men Give Land to Wives

**Description:** In early 2014, men began giving land to their wives by portioning off parts of their existing plots for the women to own. This gave women sole ownership and responsibility over their land for the 2014 rainy season. This led to an increase in crop yields and income for many households. In some communities, women were seen as being better farmers than men, producing more than their husbands, and were therefore respected for contributing to the food security and income of the household. Men and women were also sharing farming responsibilities in the fields in addition to the homes, leading to more equal relationships into 2015.

**Significance:** This outcome demonstrates the relationship between gender equity, food security, and economic empowerment in the WA-WASH program. Before women were allowed to own land, only men could farm for their profit. Women were only to farm on their husband's land, and all profit went to the husband. Access to income was therefore severely limited for women. By encouraging equal land ownership and workload capacities, men and women experienced improved gender equality and respect at the household and community level.

**Contribution:** CARE, traditional leaders, and Gender Champions encouraged men to give land to women. The VSLA meetings as well as community discussions led to these changes in land ownership, and resulted in improvements in household food security, income, and gender equity.



## Outcome J: Saving Money through VSLAs

**Description:** In early 2014, both women and men began saving money through the VSLA system in all six interviewed communities. Intervention communities saw almost universal participation in VSLAs, while control communities saw most people participating but not all. Participation in the VSLAs led to a reportedly drastic decrease in household arguments, since arguments usually stemmed from disagreements on money quantity and distribution. Since women have their own money saved through the VSLAs, they can also contribute to household expenses, creating a more equal and collaborative environment. Women noted that they paid mostly for school fees and food for the family from their VSLA savings, and sometimes purchased inputs for their small businesses or fields from 2014 to 2015. In addition, men began to drink less in order to save more money through the VSLA. This led to an increase in money available to the household, and a decrease in arguments and violence since men were drinking less.

**Significance:** This outcome demonstrated the relationship between economic empowerment and gender equity specifically facilitated by the VSLAs. Before the VSLAs, both men and women struggled to save money. Women in particular were left out of major household decisions and income-generating activities due to lack of sufficient funds. By ensuring more economic equality, men and women experienced improved gender equality in the household and the community.

**Contribution:** CARE facilitated VSLA creation and membership. Community members took responsibility for their VSLA group, creating committees and ensuring consistent attendance at meetings by charging fees for late or absent participants. A president, treasurer, and secretary were elected for each group. After the first VSLA contribution meeting, participants must wait 6 months for the first distribution of their savings. VSLA groups met once a week and participants contributed at least 2 cedi, usually about 5 cedi, per week (1 cedi = \$0.30). The consistent meetings and community leadership led to the success of VSLAs.

### 3.4 KNOWLEDGE AND SKILLS

#### **Useful Question:**

How has WA-WASH changed participants' capacity (knowledge and skills) for improving their lives?

WA-WASH communities saw great improvements in knowledge around hygiene, sanitation, and gender equity. Improvements in skills were largely experienced by community leaders, who shared their knowledge with other community members. Community leaders were essential

to the success of WA-WASH. They were able to mobilize communities, take action, and persevere during the long process of changing behaviors and perceptions.

Outcome K through Outcome M describe the knowledge and skills outcomes in detail.

### Outcome K: Communication and Leadership Skills

**Description: Starting in 2013, community leaders learned and implemented communication and leadership skills.** They learned how to handle conflict and mobilize their communities around WASH and gender issues. They noted an emphasis on patience and an open mind when making changes and uniting people. It took time for people to accept the new ideas and take actions to reflect changes in perceptions. Female leaders learned how to speak among colleagues and attend meetings, as well as how to facilitate meetings among community members.

**Significance:** Community-based education and leadership can be far more effective at changing behavior than when outsiders introduce new concepts to community. This outcome demonstrates the importance of communication and leadership skills gained by community leaders. These skills ultimately contributed to positive changes in WASH and gender issues in each village.

**Contribution:** When CARE introduced the WA-WASH project, community members chose leaders to share new knowledge and skills. Natural Leaders, Gender Champions, WATSAN Committee Leaders and VSLA Leaders were chosen and regularly attended meetings at their District Assembly. When the project started, leaders had a meeting with CARE or PRUDA staff each week. Cooperation was key, and leaders continued to attend meetings and trainings throughout the duration of the project.

### Outcome L: Hands-on Skills

**Description: From 2014 to 2015, community leaders learned and implemented hands-on skills.** Latrine artisans learned how to construct latrines with local resources, Community Livestock Workers learned to care for livestock, and WATSAN committee members learned to keep records, monitor boreholes, and replace broken parts.

**Significance:** This outcome emphasizes that community leaders learned the majority of the hands-on skills from the WA-WASH program. These skills, though learned by few, benefited the whole community by sustaining changes in WASH and gender outcomes.

**Contribution:** CARE and PRUDA provided the majority of hands-on skills training for community leaders. The leaders attended District Assembly trainings to acquire the skills, and CARE staff provided support through regular visits to the communities.

## **Outcome M: Knowledge on WASH and Gender Attitudes**

**Description:** From 2013 through 2015, all six interviewed communities learned new knowledge around WASH and gender issues, and one community, Brifo-Maal improved knowledge around climate change preparedness. WASH knowledge included hand washing, personal hygiene, latrine cleaning, vegetable washing before cooking, covering drinking water, and improving drinking water quality with Aquatabs. Attitude changes around gender issues included equal respect of men and women, more equal household duties, and how to settle disputes. Climate change preparedness included information on when the rain is coming and how much rain is expected, when to plant, and what kind of crops to plant if a drought is expected. Some communities learned to sow seeds in lines, and proper spacing of crops for the best yields.

This outcome shows the connection between improvements in community knowledge and changes in WASH and gender outcomes. Community members were able to recognize these changes in knowledge as the foundation for improvements in health and gender equity, and ultimately improvements in health and equality between men and women.

**Significance:** Improvements in knowledge and skills are the foundation for behavior changes. Behavior change can lead to improvements in health, food security, gender equity, and social relationships. This outcome emphasizes how improvements in knowledge around WASH, gender issues, and climate change led to tangible changes in behavior among community members.

**Contribution:** CARE, the District Assembly Environmental Health Unit, Natural Leaders, Gender Champions, and traditional leaders shared information with community members through regular meetings to improve knowledge around WASH and gender issues. One-on-one meetings between community leaders and members were essential to improving knowledge and changing attitudes, as well as regular discussions at the weekly VSLA meetings. Climate change preparedness education was provided by CARE, but was limited and not a primary focus or outcome of WA-WASH.

### 3.5 SOCIAL RELATIONSHIPS AND STRUCTURES

**Useful Question:** How has the project influenced social structures (relationships, community institutions) and/or social capital (trust, networks, group membership?)

In forming groups like VSLAs and WATSAN, community members learned to build relationships from positive communication practices and organized group structures. These groups were essential to the success of WA-WASH, and served as platforms for discussion, dissemination of new knowledge, and sustainability of behavior changes.

*Outcome N* through *Outcome O* describe the social relationship and structures outcomes in detail.

#### **Outcome N: Improvements in Relationships**

**Description:** Since 2013, communities experienced improvements in the relationships between people: community members were able to work together more peacefully, share ideas, respect and listen to one another, make decisions together, organize themselves, and be patient and kind with one another. Most of these improvements were attributed to the weekly VSLA meetings, as well as discussions on WASH and gender issues during those meetings. Through the VSLA meetings, community members had the opportunity to discuss issues, settle disputes, listen to each other, and ultimately strengthen the relationships between individuals. Many communities emphasized the ability to now make decisions together as a community, which was challenging before the VSLA groups were formed. People encouraged each other to make changes in their WASH behaviors and gender relationships, and this collective attitude strengthened changes in WASH behaviors and gender equity.

**Significance:** This outcome demonstrates the importance of the VSLAs in improving communication, leadership and collective decision-making among community members with the end result of working together towards common goals. Stronger relationships between individuals resulted from these changes in communication, which played a large role in sustaining improvements in WASH and gender equity.

**Contribution:** CARE introduced the VSLAs and community leaders led the meetings and provided guidance on discussing problems and solutions. Everyone in the community contributed to conversations and worked to improve communication and listening during the meetings.

## Outcome O: WATSAN Committees

**Description:** In 2013 and 2014, all WA-WASH communities formed WATSAN Committees to implement CLTS and WASH activities. These groups consisted of community members, Natural Leaders and traditional leaders, sometimes included the chief, the Queen Mother<sup>18</sup>, the land lord<sup>19</sup>, and assistants to the chief and Queen Mother. Natural leaders shared information with the community in one-on-one interactions and in community meetings. By encouraging community members to construct latrines, keep their latrines clean, wash their hands, and keep food clean and properly stored, the **WATSAN Committees facilitated the success and sustainability of WASH interventions.**

**Significance:** Behavior change requires consistent education. Community-led initiatives are more likely to be successful when community members take the lead on the projects. When motivation comes from within, a project is more likely to be sustainable, especially when behavior change from education is the primary goal of a project. WATSAN committees provided the consistent education and enforcement of hygiene and sanitation changes that allowed the WA-WASH program initiatives to be successful.

**Contribution:** CARE trained members of each community to create a WATSAN committee to oversee all the WASH initiatives, from borehole creation and maintenance, to latrine construction and handwashing education. CARE met monthly with WATSAN committees to discuss WASH education, changes, and challenges in the communities. WATSAN committee members received refresher training to discuss sustainable management of water and sanitation facilities, as well as address the functionality and composition of the current WATSAN committee. They also discussed sustaining water levy payments in each community that serve to maintain the function of water sources.

### 3.6 NEGATIVE AND UNEXPECTED OUTCOMES AND OBSERVATIONS

**Useful Question:** What negative or unexpected outcomes occurred as a result of WA-WASH activities? How can we learn from these outcomes?

Due to the nature of the interviews, it was difficult to facilitate the discussion of negative outcomes. Participants were eager to talk about positive changes and improvements, but either uncertain about what negative outcomes occurred or hesitant to reveal the negative outcomes so as not to upset the organization. It is possible that very few negative outcomes did occur. Negative outcomes may be better assessed through the quantitative end line results.

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<sup>18</sup> Traditional female leader, present in each community

<sup>19</sup> Traditional practices and ceremonies leader

CARE Ghana staff were able to identify negative outcomes, observations, challenges and areas for improvements for WA-WASH activities. Their feedback was valuable in assessing these challenges. However, it was difficult to determine the contribution of CARE or others to these negative outcomes, since this is the equivalent of assigning blame. Because of this, the negative outcomes will be organized differently than the outcomes above, simply stating the issue or observation, followed by future recommendations for each section.

### ***Negative Health Outcomes and Observations:***

According to CARE staff, there were no negative health outcomes or negative changes in behavior around sanitation and hygiene. However, there were issues with implementation of the projects and perceptions of sanitation changes.

1. When the rains began, there were **lots of flies in the community that were attributed to the latrines being close to their homes, so people became angry about the latrines.** CARE staff had to keep insisting that it wasn't the latrines causing the flies, but that most latrines did not have a vented pipe, which could make smells and flies worse.
2. **Hand washing facility maintenance was also an issue.** CARE initially provided plastic gallons to construct tippy taps. But when they broke down, many communities did not replace the tippy taps, insisting that CARE should purchase new ones.
3. **There was also a problem with borehole maintenance.** In one community, as water distribution issue led to conflicts when a borehole shared by two communities would run out of water. In other communities, CARE staff wanted people to fence around the boreholes to block out animals, but they would not, despite being given materials. It was unclear why they did not want to fence the borehole area.

### ***Future Recommendations:***

To solve the problem of flies during the rainy season, **CARE staff provided education on how to manage flies through the construction of improved latrines with vents.** Education on the benefits of a vented latrine should be a part of future projects, to ensure that people do not experience this negative outcome in the future.

Education on hand washing (tippy tap) maintenance should also be provided at regular intervals to ensure that hand washing is sustained by community members.

Borehole maintenance issues are usually resolved by the WATSAN committees with the help of CARE staff. Borehole maintenance should continue to be a focus of WASH initiatives, to ensure sustainability of the water source.

### ***Negative Food Security Outcomes and Observations:***

According to CARE staff, there were a few limitations and negative food security outcomes, mostly outside the control of community members.

4. First and most importantly, **most communities experienced a decrease in rainfall**. Food production was dependent on rainfall and soil quality, so initiatives could not be implemented in some areas.
5. A number of **VSLA members who received goats lost their animals to illness and stress**, so not everyone who was given goats still has them, limiting the potential economic and food security benefits.
6. **Fertilizer and other agriculture resources are expensive, so it can be difficult to get women interested in farming for themselves**, even if they are VSLA members and their husbands or family members give them land.
7. In addition, the **women used to support men on their farms, and now they have their own, but they still need to work on their husbands' farms. This puts time constraints on the women's ability to farm**. Usually they are still only allowed to work on their lands after completing work on their husbands' lands in July, after the rains have already arrived.

### ***Future Recommendations:***

Climate change issues like rainfall need to be better addressed in the future. While climate change preparedness was an educational component of WA-WASH, it was not a focus and most communities did not mention climate change knowledge. How to deal with environmental changes needs to be a priority in future agriculture and food security initiatives.

When providing goats, it is important to acknowledge that not all animals will survive. Expectations need to be established with VSLA members about what happens when an animal dies. Do they receive another animal, if it's within a certain time period? Or do they need to accept the risk that their animal may not be as healthy as others? It is also important the CLWs have proper knowledge and resources to care for the goats before the animals are given to VSLA members.

It is also important to acknowledge the time and economic constraints on women who work their own land. This is an essential step to improving gender equity and improving economic

and food security, but the limitations must be acknowledged and solutions found when working with women and agriculture in the future.

### ***Negative Gender Equity Outcomes and Observations***

8. CARE staff noted that in some places, **men become resentful of their wives' participation in WA-WASH activities, especially in the case of female VSLA leaders. This can lead to conflict in the home, and lack of communication and unity in the community.** Men see the woman is succeeding, and will refuse to come to the meetings. The men sometimes feel insecure. This problem is usually limited to a few individuals per community, and to staff understanding this mindset is not widespread.
9. One perception that remains in each community is that women should not make as much money as men. **Both men and women believe that men should make more money than women, since they are the traditional providers.** CARE staff noted that is is a natural perception, and that even for those that are well educated it will take time to see women as economic equals. But, they note, things are changing.
10. Overall, **community leaders experience more of the benefits of gender equity than community members, simply from their constant participation and motivation.** This is not a big problem, since this knowledge has a trickle down effect, but it is clear to CARE staff that community members are not yet seeing the magnitude of gender changes that leaders see. Sometimes changes are experienced by some women and not others. For example a newly married woman in the community will not be allowed to participate in VSLA groups or community meetings, limiting her exposure to the new knowledge and behavior changes. The change among community members, especially new community members, is slower, but gradually catching up with the leaders.
11. One observation made is that **the CARE staff team is not gender balanced.** The team consists of 5 men. This does not provide an accurate example of leadership to the WA-WASH communities.

### ***Future Recommendations:***

All of the negative gender equity issues can be described as a lack of change in gender attitudes, or that the change in attitudes around gender equity is still in progress. These issues simply need time to progress in each community.

In regards to the CARE staff team being exclusively male, the team recognizes the importance of including women as team members and leaders in future CARE projects. Having men as the



leaders is not a bad thing, in fact it should be seen as a positive: “When you have these [gender] issues, we need to start with the men, because they are the ones with the problem. If a man comes to tell them, they can better see the need for that change, and we can bridge the gap,” said one CARE staff member. However, they also see the benefits of including women: “But having women on the team would enhance the work. For example, we can only get some answers from women if another women is asking her the questions. Having women on the team would help with engaging women and girls.”

### ***Negative Skills and Knowledge, Negative Social Relationships and Structures Outcomes***

There were **no negative outcomes or observations mentioned related to Skills and Knowledge, or Social Relationship and Structures**. There may be no negative outcomes related to these areas, or it may be difficult to reveal these negative outcomes through the interviews.

### ***3.7 Unexpected Positive Outcomes and Observations***

Participants were excited to point out the outcomes that surprised them most. All of these unexpected outcomes are outlined in the Outcomes sections, but the most emphasized ones are explained in detail below.

12. Overall, communities and CARE staff were surprised that everyone successfully completed CLTS, with most communities declared Open Defecation Free. **Everyone was surprised that communities completely accepted the ideas of improved sanitation, and built the latrines on their own with no subsidies.** People truly saw the benefits of building latrines. People now say their communities are clean and beautiful, and take true pride in their work. The habit of hand washing has been picked up by several communities and schools. CARE staff noted that each community has adopted CLTS quickly and easily. Now, they are looking towards sustainability, like when latrines collapse. Even now, communities are constructing new latrines to replace broken ones. “They have really changed their behavior,” says a staff member. “This is key.”
13. Participants were also **surprised by the access to land for women, and how much of an impact that has made for women’s respect, economic security, and the family’s food security.** “225 women now have access to land,” said one CARE staff member. “It’s not easy to just give women access to land, [there are cultural barriers]. But the impact is very strong”.
14. Moreover, **people were shocked at the success of household chore sharing between men and women.** Men fetching water or cooking was unthinkable a few years ago.

15. **The VSLAs have also greatly improved the lives of women, much to the surprise of participants and CARE staff.** Women are now able to make a financial contribution to the family. Women are paying school fees, buying bicycles, and purchasing inputs for their small businesses or farms. Their mobility, household decision making ability, and civic participation has increased. Most communities were skeptical about the VSLA program, and were pleased and surprised by the positive results.
16. **Communities were also surprised by their newfound sense of unity.** This comes from implementing various initiatives, including CLTS, VSLAs, and gardening.

Other than the lack of rainfall this year, there were no unexpected negative outcomes or observations.

#### **4. DISCUSSION:**

Overall, the outcomes experienced by community members were positive and directly benefited participants' health, social well being, and economic security at the household and community levels. Each of these positive outcomes was accompanied by a contribution from CARE and partnering WA-WASH organizations. For each negative outcome or observation, future recommendations can be observed for future initiatives or for follow up on this WA-WASH program.

The magnitude and variety of outcomes varied by community, with some communities experiencing more positive outcomes and a greater variety of changes within the five outcome areas. It appears that intervention communities, where gender mainstreaming was implemented in addition to CLTS and VSLAs, experienced more positive outcomes than control communities, where gender mainstreaming was not implemented as a part of WA-WASH. The addition of gender mainstreaming allowed for more female participation in projects and a greater sense of unity between men and women. Gender mainstreaming activities also revealed stronger improvements in gender equity related to economic security, household division of labor and decision making, gender violence, land distribution, and civic engagement.

Moreover, VSLAs were far more successful in areas with gender mainstreaming. In areas with gender mainstreaming, almost everyone in a community was a VSLA member. In areas without gender mainstreaming, as few as half of community members belonged to a VSLA group. As seen in the outcome descriptions and contribution, VSLAs were the foundation of many outcomes. VSLA meetings served as a place of discussion, information sharing, and social support for household and community level changes. With the increased success of VSLAs through gender mainstreaming, outcomes from all intervention areas were improved.

Some changes take more than two years to become a reality, and many results have yet to be seen. Some outcomes or observations may be revealed in quantitative data.

It is important to pair this qualitative analysis with other quantitative analysis from end line research, in order to assess the accurate distribution and magnitude of outcomes.

## **5. CONCLUSION:**

The impact of CARE Ghana's work was explained well by a CARE staff member: "While it's difficult to say – 'This is CARE's work,' 'this is a natural change in the culture', we know that change in the household comes as a result of exposure. What [CARE is] doing is contributing to [the knowledge people] have gotten elsewhere, or not at all. Most CARE communities didn't have any exposure. Maybe some on the radio, in markets, children going away for higher education and coming back. But the way we see it, CARE really catalyzed this knowledge."

CARE has initiated and catalyzed improvements in health, hygiene and sanitation behaviors, food security, gender equity, knowledge and skills, and social structures and relationships in all participating WA-WASH communities. While the variety and magnitude of these changes vary by community and individual, it is clear that CARE's role in each outcome has been informative, supportive, and consistent since the start of WA-WASH until today. Future WASH initiatives can use CARE's contribution as a model for successful and sustainable WASH improvements, magnified by improvements in gender equity, food security, knowledge and skills, and social relationships and structures.

## 6. APPENDIX A

### 6.1 CASE STUDY 1

*Village: Brifo-Maal*

*Participant Name: Baby Yelfaabe Solu*

*Occupation: Pito brewer*

*Successful activity: Gardening and Livestock*

Between 2013 and 2015, the USAID WA-WASH program introduced various water and sanitation, economic, and gender empowerment programs in Brifo-Maal, a village in the Upper West region of Ghana.

When Baby Yelfaabe joined a Village Savings and Loans Association (VSLA) group in her village of Brifo-Maal, she expected an opportunity to save her limited income from brewing pito, a local drink made of grain. When the borehole came, she expected clean water would help her brew pito and improve health in the community.

But the personal benefits from VSLAs and WASH activities exceeded her expectations. Baby Yelfaabe's participation resulted not only in economic security and improved health, but also improved food security herself and her family.

After joining a VSLA group, Baby Yelfaabe was chosen to be a member of the WATSAN committee, dedicated to ensuring the success and sustainability of water quality, sanitation, and hygiene practices in Brifo-Maal. When the borehole was installed, a group of women including Baby Yelfaabe began a small dry-season community garden near the water source.

"Gardening is another source of food," says Baby Yelfaabe. "After the borehole came, the community garden was created and it increased the variety of food available during the dry season. We now have pumpkin leaves, pumpkin, okra, hibiscus, bean leaves, and tomatoes. We use to only get these intermittently when we could buy them, but now they are available during the dry season all the time."

In early 2014, all VSLA members in Brifo-Maal, including Baby Yelfaabe, received two goats from CARE. As a motivated new livestock owner, she decided to increase her herd and was given 6 additional goats by family members. She also started raising chickens. Her herd continues to grow – one of her goats has since given birth, and another is pregnant.

"Livestock ownership improves my quality of life," she said. "I now benefit from the assets of livestock ownership. I can use the money I make [from selling my animals] for anything. I can sell the animals to get health insurance, to take care of my children's school fees, and to buy food. I can also get capital to continue pito brewing."

Beyond her success as a livestock owner, she was again chosen by her community to serve as a leader, this time as a Community Livestock Worker (CLW). Baby Yelfaabe learned to treat animals for worms, identify signs of illness, and perform castration, skills that she shares with everyone in her community. She is seen as a leader and an important asset to the economic health and food security of Brifo-Maal.

Baby Yelfaabe has seen economic, health, and food security improvements from her hard work and participation in WA-WASH activities. As a female leader, her participation has shattered pre-existing gender norms, and her success as a herder, gardener, and businesswoman has earned her the respect of her household and community.



The Brifo-Maal community garden. Women and children are collecting water from the borehole behind the garden.



Baby Yelfaabe in the field with her goats

## 6.2 CASE STUDY 2

*Village: Bagri*

*Name: Luke Kuuyeb*

*Occupation: School Health Education Program (SHEP) teacher*

*Successful Activity: WASH in Schools (WinS)*

Luke Kuuyeb began sanitation and hygiene education many years ago at the secondary school in Bagri as the School Health Education Program (SHEP) teacher. But as the only teacher who was trained in WASH education, it was difficult to make the changes on his own. The school had no sanitation facilities or hand washing stations, and students and teachers alike struggled to understand the impact that a clean environment would have on their health.

In 2013, CARE Ghana began working with Luke as a part of the USAID WA-WASH program to integrate WASH into schools. CARE constructed a urinary pit at the secondary school, and a latrine at the primary school about 200 meters away, about a 5-minute walk. CARE gave the teachers laminated pictures of WASH issues and solutions to serve as visual aids when discussing WASH with students. They also provided the school with three large barrel hand-washing stations, and trained teachers to construct tippy taps.

CARE conducted WASH education training for Luke and all the other secondary school teachers, which served to catalyze WASH improvements in their school. As Luke says, “Bringing all the teachers aboard was a good thing. [Other NGOs] only taught the head teacher and the SHEP. CARE WASH was an improvement because all teachers were included. So now any teacher can speak to these issues in the absence of other teachers.”

As a result, Luke and his fellow teachers emphasized hand washing among students at the Bagri secondary school. In addition to the barrel hand washing stations, they constructed four tippy taps for a total of 7 hand-washing stations at the school of 126 students. Soap is available at each hand washing station, and if soap runs out, they use ash until they have the funds to purchase more soap. Teachers also spoke to students daily about the importance of hand washing and personal hygiene. The students took personal responsibility for the success of hygiene improvements by maintaining the hand washing stations, regularly collecting water and replacing soap. “Now, when there is no soap or ash, they will come tell the teachers,” said Luke. “They wouldn’t ask for something unless they were going to use it!”

The teachers have also brought hygiene and sanitation into other subjects in the classroom. “For example, hygiene in mathematics,” said Luke. “If two people visit a latrine and upon returning did not wash their hands, and each one shook hands with three people, how many people were contaminated? Or, if one person visits the latrine without washing their hands and shakes hands with 4 people, how many people total are contaminated?”

They sing songs about health and hygiene regularly. “When class is boring, we can sing these songs and reenergize the children.” Even in English class they integrate sanitation and hygiene, for example in an English passage on cholera. Luke explained, “Questions after a passage about cholera include things like, what are the causes of cholera?” Luke saw that this made students think not only about the importance of hygiene and sanitation, but also the science behind disease and the solutions for prevention.

The students took the initiative to improve WASH at the school and even in their homes. Health groups were created among the children for hygiene and sanitation. Some students also constructed tippy taps at home for their families, and proudly brought their teachers home to show them their hard work and education they shared with their families. Luke was impressed with the students’ initiatives. Before, “[The students] were not enlightened. But once [the teachers were] educated by CARE to teach [the students], they have benefited a lot. They use to not wash their hands, now they do. Personal hygiene is now seen as important.”

The WASH in School initiative in Bagri was not without challenges. First, the latrine was built at the primary school. While it is only 200 meters away, it takes 5 to 10 minutes to walk there, and 5 to 10 minutes to walk back. This means that a student would need to take 15 to 25 minutes to use the toilet, a large amount of time during class. Because they do not have latrines, the students prefer to go ‘in the bush’ outside the classrooms, and for this reason the community has not been declared ODF, or Open Defecation Free.

Allocating available funds for hygiene and sanitation was also a challenge. The school budget would run out of money for soap, brooms and washing brushes for the urinal pits. They also did not have the funds to construct a latrine. For now, they fill in some of the funding gaps thanks to a local NGO, Savannah Education. Savannah Education initially constructed the school and often has some money for soap or brooms. They have also promised the school a latrine, but it has been delayed. Luke says that if by the close of the school year in July the NGO still had not built the latrine, the school would dig a simple pit latrine to use in the meantime. By the time school starts up again, they will at least have a traditional pit latrine for students to use, and the community can be declared ODF.

Overall, Luke and the other teachers were shocked by the successes of the hygiene and sanitation education. “Children are washing their hands without being told to!” says Luke. “That is the satisfaction I get out of this. After educating, you sit back and they are doing it, at the critical times too. That really surprised me.”

In the future, he says that NGOs like CARE should continue to engage all the teachers. The sense of ownership over hygiene and education, and the sense of working towards a common WASH goal with their students, was essential to the success of WA-WASH in Bagri.

It is clear from the beauty of the school that they take this task seriously. The school is lined with newly planted trees, and is incredibly clean. The teachers and students alike take pride in their school and the work they have done to make it a cleaner, more beautiful, and healthier place.





A student washing her hands at the tippy tap.



Luke, the school SHEP, washing his hands at the tippy tap with ash.



A class from the Bagri Secondary School standing behind one of their 4 tippy tap hand washing stations.



### 6.3 CASE STUDY 3

*Community: Kambaa-Tanzu*

*Name: Yelvieli Sylvester*

*Occupation: Farmer, Village Chief*

*Successful activity: CLTS*

In 2013, the USAID WA-WASH project introduced Community Led Total Sanitation (CLTS) in Kambaa-Tanzu, a village of 270 people in the Nandom district of the Upper West region of Ghana. Latrines and hand washing stations were constructed, hygiene education was extended, and a borehole was dug in the center of the community.

By 2014, Kambaa-Tanzu was declared Open Defecation Free (ODF). Yelvieli Sylvester, the chief of Kambaa-Tanzu, spread CLTS work and education to six surrounding communities. In early 2015, all six communities were declared ODF.

How did a WA-WASH initiative in one village become a success in six other villages, without any inputs from official WA-WASH organizations like CARE, PRUDA, or USAID? “CARE came to teach us to fish,” says Yelvieli, “Not catch fish for us.” With this proverb in mind, he took the initiative to share the knowledge of CLTS with other villages.

After the success of CLTS in Kambaa-Tanzu, Chief Yelvieli immediately recognized the importance of extending improvements in sanitation and hygiene to his and other communities. “We were facing so many [health] problems. No longer. The whole community benefitted, especially children and women. For children, if they don’t grow up because they are sick, they can’t do work. For men, if your child is sick, you will have to pay. Animals use to die too, from eating feces. Now they don’t.” He knew it was his duty to share these benefits with other villages, and he was enthusiastic to do so.

“I thought, if I keep sanitation and ODF for myself, what about the other communities? If something is good for you, you have no right to keep it for yourself,” explained Yelvieli. Yelvieli went to each of the six communities and explained the importance of sanitation and being ODF. He invited people from other villages to his community, and as he expected, “they saw that [CLTS] works.”

For each village, Yelvieli chose one man and one woman to be Natural Leaders, who served as educators on sanitation and hygiene. Natural Leaders encourage people to build latrines as well as educate their communities on the importance of hand washing, clean food preparation, and food storage to prevent contamination. With community members they drew open defecation maps of the village, and marked feces in the environment, providing visual evidence of the sanitation problem. He also chose 3 people from each village to regularly check the cleanliness of latrines, to ensure they were being used and cared for properly. Yelvieli travelled regularly to each community to check that they were making progress towards ODF. To his surprise, every household eventually constructed a toilet, and the communities were declared ODF.

He went on to describe changes each community made in detail. “Now we wash our hands with soap. We teach the children so they know. Even their exams talk about sanitation, so they do better in school. Now we achieved ODF. And we use to walk 5 kilometers for water, to the river, and boiled it. Now we have a borehole, right in the middle of the village.”

Yelvieli was quick to point out the positive changes in gender relationships and the role of women in CLTS. “Since WA-WASH came, we see than women can play the same role as men. Now we men help too, collect firewood and water, and cook. Raising fowls or goats, any gender can do this, [not just men]. We have no right to exclude women, in fact they can do things better.” Women were regularly involved in CLTS meetings, and were chosen as Natural Leaders in each community. CLTS also provided women more privacy. Before, “women were hiding to defecate. Now they don’t have to do that.”

Extending CLTS to Kambaa-Tanzu and the six other villages was not easy. “Not everyone understands you at once. Some were ready, some were not,” said Yelvieli. He noted that at the beginning, people were giving him funny names like ‘sanitation officer’ and teasing him. People were frustrated that they were not given money or materials to build latrines, so they resisted. He sometimes left his work on the farm to extend CLTS education, and often grew tired walking to other villages. When he arrived, sometimes people would be there to meet but often people were asleep, or working, or uninterested in what he was teaching. He continued to educate, and when asked about what ultimately made the CLTS education possible, Yelvieli said one word: “Patience”. Slowly people began to see the benefits. They also enacted laws around sanitation, like a fee for open defecation. These efforts eventually led to ODF communities and improved health. “I suffered at the beginning,” said Yelvieli. “But when they understood, it became easier.”

Yelvieli has no intention of stopping now. He will keep travelling to other villages to educate people about CLTS and will continue educating and enforcing CLTS in his home of Kambaa-Tanzu. “We are still educating. [Education] is not for today alone. A time will come when we will even improve it more, we cannot take now to be an end. [...] This project will end, but we will continue working, [...] still going to other communities, and learning from other communities.”

“If you stop, you will go back to the beginning,” Yelvieli said. “I will do this work the rest of my life.”



Yelvieli Sylvester, standing next to his latrine and tippy tap.

## 7. APPENDIX B

Community	District	Implemented Interventions
<i>Methow-Yipaal</i>	<i>Lawra</i>	<i>Gender mainstreaming, potable water WASH adaptation to climate change, CLTS, WASH integration to enhance food security<sup>20</sup></i>
<b><i>Brifo Maa<sup>21</sup></i></b>	<b><i>Lawra</i></b>	<b><i>Gender mainstreaming, potable water WASH adaptation to climate change, CLTS, WASH integration to enhance food security</i></b>
<i>Dagne-Biire</i>	<i>Lawra</i>	<i>Gender mainstreaming, potable water WASH adaptation to climate change, CLTS, WASH integration to enhance food security</i>
<i>Bawelyiri</i>	<i>Lawra</i>	<i>Gender mainstreaming, potable water WASH adaptation to climate change, CLTS, WASH integration to enhance food security</i>
<i>Venne</i>	<i>Nandom</i>	<i>Gender mainstreaming, WASH adaptation to climate change, CLTS, WASH integration to enhance food security</i>
<b><i>Kaba-Tanzu</i></b>	<b><i>Nandom</i></b>	<b><i>Gender mainstreaming, potable water WASH adaptation to climate change, CLTS, WASH integration to enhance food security</i></b>
<i>Dabagteng</i>	<i>Nandom</i>	<i>Gender mainstreaming, potable water WASH adaptation to climate change, CLTS, WASH integration to enhance food security</i>
<i>Ketuo-Beyoglo</i>	<i>Nandom</i>	<i>Gender mainstreaming, potable water WASH adaptation to climate change, CLTS, WASH integration to enhance food security</i>
<i>Mantari</i>	<i>Nadowli-Kaleo</i>	<i>Gender mainstreaming, WASH adaptation to climate change, WASH integration to enhance food security</i>
<i>Meguo</i>	<i>Nadowli-Kaleo</i>	<i>Gender mainstreaming, WASH adaptation to climate change, CLTS, WASH integration to enhance food security</i>
<b>Bagri</b>	<b>Lawra</b>	<b>CLTS, VSLA, WASH in School</b>
<b>Tabier</b>	<b>Lawra</b>	<b>CLTS, VSLA, WASH in School</b>
Gbelinka	Lawra	CLTS, VSLA
<b>Berwong</b>	<b>Lawra</b>	<b>CLTS, VSLA, WASH in School</b>
Tempelle	Nandom	CLTS, VSLA
Dumanje	Nandom	CLTS, VSLA
<b>Torkuu</b>	<b>Nandom</b>	<b>CLTS, VSLA, WASH in School</b>
Tantuo	Nandom	CLTS, VSLA, WASH in School
Tome	Nandom	CLTS, VSLA, WASH in School
<b>Zindagawn</b>	<b>Nandom</b>	<b>CLTS, VSLA, WASH in School</b>
Pisie	Nandom	CLTS, VSLA

<sup>20</sup> Italicized communities are **Intervention Communities**, where Gender Mainstreaming was incorporated into WA-WASH activities. All other communities are Control Communities.

<sup>21</sup> Bolded communities were interviewed for this Outcome Harvest

## 8. APPENDIX C

### INTERVIEW TOOL #1

Date: \_\_\_\_\_

Community: \_\_\_\_\_

Location: \_\_\_\_\_

Interview ID # \_\_\_\_ \_

Start time: \_\_\_\_\_

End time: \_\_\_\_\_

#### WA-WASH Outcome Assessment:

##### Focus Group, Community Leader, and CARE Staff Interview Guide

*Participant: Community Leaders (individual<sup>22</sup>), Community Members (focus group),  
or CARE Staff (focus group)<sup>23</sup>*

#### Introduction:

Hello. Thank you for participating in this focus group today. My name is [Interpreter's name] and this is [Researcher's name]. We are working with CARE International and a researcher from Emory University to conduct interviews with community members to better understand the experiences of men and women as a result of various activities of CARE.

We are here to learn from you. We want to hear your story. Since we are interested in your own experiences and opinions, there are no right or wrong answers. We want to know what has been good for you, what has not been good for you, and where improvements can be made in the future. Your input is extremely valuable to our research.

We will keep track of your answers on a piece of paper for us to review later. Your names will not be used and what you say cannot be traced back to you.

Are there any questions before we begin?

#### Focus Group Guide

##### Changes in Quality of Life

1. In the last two years, have you observed any positive changes in the overall health of the community?
  - a. Please expand on what these changes look like.  
*Probes: Nutritional health, illnesses from water (diarrhea), respiratory illnesses, infections*
  - b. Who in the community has benefited most from these positive health changes?
    - i. Why?

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<sup>22</sup> Community Leaders were interviewed individually.

<sup>23</sup> For CARE Staff, the questions were asked in the context of all WA-WASH communities. They gave examples and generalized observations

- ii. How have these health changes been different for different people, for example women, men and children?
  - c. When did your community experience the benefit of these positive health changes?
  - d. What did the community do (actions/behaviors) that led to these positive health changes?
    - i. Please expand on these actions in detail.  
*Probes: CLTS, improved sanitation and hygiene behaviors, improved access to clean water, latrine construction*
  - e. What or who in your community convinced people to change their actions/behavior?
  - f. What cultural practices, traditions or rules changed in order to change the community's actions?
  - g. What did *[previously identified organization, cultural practice, or person]* do to motivate these changes in community behavior? Describe their actions.
2. In the last two years, have you observed any negative changes in the overall health of your community?
- a. Please expand on what these changes look like.  
*Probes: Nutritional health, illnesses from water (diarrhea), respiratory illnesses, infections*
  - b. Who in your community experienced these negative health changes the most?
    - i. Why?
  - c. When did your community experience these negative health changes?
  - d. What changed in your community in the community to lead to these negative health changes?
    - i. Please expand on the actions or behaviors that changed.
    - ii.
  - e. What cultural practices, traditions, or rules, if any, led this negative health change?
  - f. What did *[previously identified organization, cultural practice, or person]* do that led to these changes?
3. In the last two years, have you observed any positive changes in how much and what kind of food your family has available?
- a. Please expand on these changes.  
*Probes: Amount of food available, availability during different seasons, food quality, crop quality, food diversity, cost of food*
  - b. Who in your community has benefited most from these positive food security changes?
    - i. Why?

- c. When did your community member(s) experience these positive food security changes?
  - d. What did the community do (actions/behaviors) that led to these positive food security changes?
    - i. Please expand on these actions in detail.  
*Probes: Dry season gardening, crop production, livestock production, land ownership*
  - e. What or who in your community motivated people to change their actions/behavior?
  - f. What cultural practices, traditions or rules changed in order to change the community's actions?
  - g. What did *[previously identified organization, cultural practice, or person]* do to motivate these changes in your behavior? Describe their actions.
4. In the last two years, have you observed any negative changes in how much and what kind of food your community has available?
- a. Please expand on what these changes look like.  
*Probes: Amount of food available, availability during different seasons, food quality, crop quality, food diversity, cost of food*
  - b. Who in your community experienced these negative food security changes the most?
    - i. Why?
  - c. When did your community experience these negative food security changes?
  - d. What changed in in the community to lead to these negative food security changes?
    - i. Expand on the actions or behaviors that changed.
  - e. What cultural practices, traditions, or rules, if any, led this negative food security change?
  - f. What did *[previously identified organization, cultural practice, or person]* do that led to these changes?
5. In the last two years, have you observed any positive changes in how men and women in your community relate to one another?
- a. Please expand on these changes.  
*Probes: Division of household labor, financial and asset control, decision-making, communication, permission, respect, and safety*
  - b. Who in your community has benefited most from these positive gender relationship changes?
    - i. Why?

- c. When did you/your family member experience these positive gender relationship changes?
  - d. What did your community do (actions/behaviors) that led to these positive gender relationship changes?
    - i. Please expand on these actions in detail.
  - e. What or who motivated the community to change their actions?
  - f. What cultural practices, traditions or changed in order to change your community's actions?
  - g. What did *[previously identified organization, cultural practice, or person]* do to motivate these changes in your behavior? Describe their actions.
6. In the last two years, have you observed any negative changes in the gender relationships of your community?
- a. Please expand on what these changes look like.  
*Probes: Division of household labor, financial and asset control, decision-making, communication, permission, and safety*
  - b. Who in your community experienced these negative gender relationship changes the most?
    - i. Why?
  - c. When did your community experience these negative gender relationship changes?
  - d. What changed in the community to lead to these negative gender relationship changes?
    - i. Expand on the actions or behaviors that changed.
  - e. What cultural practices, traditions, or rules, if any, led this negative health change?
  - f. What did *[previously identified organization, cultural practice, or person]* do that led to these changes?
7. In the last two years, have *you personally* experienced any changes in knowledge and skills?
- a. Please expand on these changes.  
*Probes: WASH knowledge, agriculture or livestock knowledge or skills, gender relationship knowledge, climate change preparedness skills*
    - i. How did these changes improve your life?
    - ii. Have you observed any changes in the knowledge and skills of *the community*?
    - iii. How did these changes improve the lives of community members?

- b. Who in your community has benefited most from these changes in knowledge and skills?
    - i. Why?
  - c. When did your community experience these changes in knowledge and skills?
  - d. What did your community do (actions/behaviors) that led to these changes in knowledge and skills?
    - i. Please expand on these actions in detail.
  - e. What or who in your community motivated you to change your actions to improve your knowledge or skills?
  - f. What cultural practices, traditions or rules changed that led to improved knowledge or skills?
  - g. What did [*previously identified organization, cultural practice, or person*] do to motivate these changes in knowledge or skills? Describe their actions.
  - h. Have there been any negative changes from new knowledge and skills?
    - i. Who was affected most by these negative changes?
    - ii. Why were these changes perceived as negative?
    - iii. What actions in your family or community led to these negative changes?
- 8. In the last two years, have you observed any changes in the social interactions and structures within your community?
  - a. Please expand on these changes.  
*Probes: Community institution/group membership, community water or land resources, community WASH resources, communication, action plans, social networks, community gender relationships*
    - i. How did these changes improve your life?
    - ii. How did these changes improve the lives of people in your community?
  - b. Who in your community has benefited most from these changes in community interactions?
    - i. Why?
  - c. When did your community experience these changes in community interactions?
  - d. What did your community do (actions/behaviors) that led to these changes in community interactions?



- i. Please expand on these actions in detail.
- e. What or who in your community motivated you to change your actions to improve community interactions?
- f. What cultural practices, traditions or rules changed that led to improved community interactions?
- g. What did *[previously mentioned organization, cultural practice, or person]* do to motivate these changes in interactions in the community? Describe their actions
- h. Have there been any negative outcomes from changes in community interactions?
  - i. Who was affected most by these negative changes?
  - ii. Why were these changes perceived as negative?
  - iii. What actions in your family or community led to these negative changes?
- 9. In the last two years, have you observed any unexpected changes or impacts on your life or in the community?
  - a. Please expand on these changes.
    - i. What unexpected positive changes occurred?
    - ii. What unexpected negative changes occurred?
  - b. What did the community do (actions/behaviors) that led to these unexpected changes?
    - i. Please expand on these actions in detail.
  - c. What did *[previously mentioned organization, cultural practice, or person]* do to motivate these changes in interactions in the community? Describe their actions.

## INTERVIEW TOOL #2

Date: \_\_\_\_\_  
Community: \_\_\_\_\_  
Location: \_\_\_\_\_  
Interview ID # \_\_\_\_ \_

Circle one: Man    Woman  
Start time: \_\_\_\_\_  
End time: \_\_\_\_\_

### WA-WASH Outcome Assessment Case Study Guide

*Participant: Community Leader*

#### Introduction:

Hello. Thank you for participating in this interview today. My name is [Interpreter's name] and this is [Interviewer/Researcher's name]. We are working with CARE International and Emory University to conduct interviews with community members to better understand the experiences of men and women as a result of various activities of CARE.

We are here to learn from you. Your input is extremely valuable to our research. We want to get as much information as we can on your roles and experiences with CARE programs, and the effects of your work on your family, your community, and your quality of life.

We want to tell you personal stories, but we will not use your name when we share the stories unless you give approval. Do you want us to use your name, or would you rather we use a fake name when reporting these results? \_\_\_\_\_

We want to use a tape recorder so that we do not miss anything that is said. I want to assure you that the recording will be securely stored and will not be accessed by anyone outside the research team. Is it ok to record this interview?

Are there any questions before we begin?

#### Introduction Questions

1. What is your name?
2. What do you do for a living?
3. Please explain your role in CARE programs.

#### Case Study Questions

4. What has been the most successful activity/project you were a part of in the last two years?
  - a. Why do you consider this activity successful?  
*Probes: Reached a lot of people, had a bit impact on one person, is long-lasting/sustainable, has had a positive impact on the community, has led to improved WASH, food security, or gender relationships, etc.*
5. Which community members benefited most from this activity?

6. When did this activity start?
  - a. Is the activity ongoing, or has it ended?
  - b. When was this activity most beneficial to the people you were working with?
7. What actions did you take to make the activity successful?
  - a. How did your behaviors and actions change from before the activity to after the activity?
8. How did you influence the behavior of others to make this activity successful?
9. How do you see this activity effecting people's quality of life in the future?
10. What did CARE do to help facilitate this activity?  
*Probes: Providing resources, knowledge or skills*
11. What were some challenges you faced during the activity?
12. Were you able to overcome any of these challenges?
  - a. How?
13. Where there any negative outcomes that resulted from this activity?
14. What issues were not addressed by your activity?
  - a. How might these issues be addressed in the future?  
*Probes: By a new activity, improving the existing activity*
    - i. Expand on how you would change your activity or make a new one in the future to better address the needs of your community