

Accelerating Access to Safe Water and Sanitation in Grand Bassa County, Liberia. Final Report

Project timeline: 1 June 2017 to 31 July 2018.

Period covered by this report: 1 June 2017 to 31 July 2018.

Overview

In July 2018, Concern Worldwide completed the implementation of the Jersey Overseas Aid Commission (JOAC) Project entitled Accelerating Access to Safe Water and Sanitation in Grand Bassa County, Liberia, directly reaching 9,545 beneficiaries in 43 communities. The project co-funded WASH activities that included construction and rehabilitation of water points, establishment and training of WASH committees and pump mechanics in the 43 communities in Grand Bassa County. 37 of these in communities were located in Concern's 'Accelerating Nutrition, and Sustainable Agriculture and Resources Management - ANSARM' programme area funded by Irish Aid, with the final six located in former intervention areas.

The water points have ensured that safe drinking water supply is now available in these 43 communities and that WASH committees have been formed and trained to ensure ownership and sustainability of those water points. Hygiene and sanitation was also promoted in the communities to provide demand for services in line with the Government of Liberia policy.

Whilst the initial proposal and budget determined that JOAC funding of £100,000 over a one year period would lead to the construction of 15 new water points and 15 further rehabilitations. During the initial contract for works the contractors sited one of the new wells (Saturday Town #2) very close to an existing but non-functioning borehole, which was identified during a site inspection by the team. It was therefore agreed by the Programme Director to remove plans for Saturday Town #2 to receive a new well, and so that additional location of Yors Town was added. Furthermore, during discussions with the contractor, they offered to repair the borehole for a lower cost, as the team were already on site – and it was therefore agreed that in addition to the 15 wells being rehabilitated, a borehole would also be rehabilitated within the first contract. The eventual cost of the contract for 31 wells, after a competitive bidding process, and based on the exchange rate at the time of payment, was much lower than expected, so permission was granted from JOAC to complete an additional 12 rehabilitated water points up to the end of a no-cost extension period of two additional months.

Concern are pleased to report that all 43 water points and project activities were successfully completed within the new time frame and expenditure was completed in line with the budget.

In collaboration with the County Health Team (CHT) and the Ministry of Public Works (MoPWs) for Grand Bassa County well site selection, well completion and verification was conducted as well as pre and post water quality testing by the CHT. The tests, executed by the CHT, involved conducting physical, microbiological, and chemical examinations to determine if the water is safe for human consumption, such that users are not exposed to unsafe levels of potentially hazardous chemicals and disease causing water-borne pathogens. All the 43 hand pumps were approved by the government agency, as safe source of drinking water, and chlorinated before they were handed over to the community dwellers. Concern has filed hard copies of the CHT approval reports, sample annexed.

Community Selection criteria

The 43 communities to benefit from the JOAC funded project were selected from the final 50 communities in Concern's Irish Aid funded 'Accelerating Nutrition, and Sustainable Agriculture and Resources Management - ANSARM' programme, and from previous intervention areas from the BRED

programme¹ where needs remained acute. The ANSARM programme aims to achieve improved and sustainable health and socio-economic status, through integrated interventions that focus on the nutrition of mothers with children under five in order to address chronic malnutrition in Liberia through knowledge transfer on infant feeding, health and diverse diet alongside WASH, livelihoods and agriculture, and gender, through a nutrition lens.

The 43 communities were selected in Grand Bassa County District #4 and District #2 based on the following Community Entry assessment carried out in March 2017:

- **Safe drinking water:** 62 communities (60.8%) had no single functional safe drinking water source (borehole & hand dug well combined), while 34 communities (33.3%) had only one functional safe drinking water source. Up to 43 communities (42.2%) had neither one functional or non-functional safe drinking water point, which implies that they have never had any safe drinking water point before. In analysing safe drinking water points, we have put into consideration the number of users for each water point as well as distance, as recommended by the Sphere standards.
- **Latrines:** 62 communities (60.8%) had no single latrine, while only 10 communities (9.8%) had only one latrine. Only three communities (2.9%) were open defecation free (ODF). Likewise, in analysing the latrines, we have put into consideration the number of users for each latrine, as recommended by the Sphere standards. These results revealed that 44 communities (about 43.1%) had both no functional safe water source as well as no latrine, a situation that makes them highly vulnerable to water borne diseases.

Results and achievements

In summary, the project:

- Constructed 15 new hand dug wells and installed Afridev hand pumps (water points)
- Rehabilitated 28 existing hand dug wells and repaired the water points
- Trained 86 pump mechanics and caretakers
- Trained 301 WASH committee members from 43 communities

Overall objectives of the project

The project aimed to reduce morbidity from water borne disease and lower the prevalence of diarrhea-exacerbated malnutrition among children under the age of five years in 30 communities in Grand Bassa and Rivercess counties, reaching at least 7,500 people directly.

Result: Exceeded with 9,545 beneficiaries reached

Outcome: Sustainable improvement of access to safe water among target communities

This outcome was achieved with 43 water points constructed or rehabilitated, along with accompanying 43 WASH Management Committees trained. The efficacy of the training is demonstrated by the fact that there have been 4% increments as per the annual survey conducted in March 2018 of community members who know two of the main causes of diarrhea and two ways to prevent diarrhea. Furthermore, there is a 5% increment of households who store drinking water in safe storage containers as per the end of year survey conducted in March 2018.

Results

43 wells (15 new and 28 rehabilitations) were constructed in two batches of 31 (15 new and 16 rehabilitated) and 12 rehabilitated respectively. The wells were constructed by VANSIG Engineering & Construction Services, a local private company based in Grand Bassa County.

¹ BRED (Building Resilience for Equitable Development) ran from 2012-2016 and targeted the extreme poor to increase livelihood security, resilience to shocks, and give a 'voice' in influencing more pro-poor responsive state and civil society structures, and social service delivery in Grand Bassa, Liberia

All of the wells were jointly validated by the County Ministry of Public Works (MoPWs) and the Ministry of Health (CHT), and water quality tests conducted by the CHT, before they were handed over to the communities. All wells are currently operational meeting adequate daily amount (15L per person per day) of water for drinking, cooking and personal hygiene for a total catchment population of 9,545 (approx. 47.5% female and 52.5% male). Details of locations of the wells are shown in Table 1 below:

Table 1: JOAC funded completed wells, Grand Bassa County, Liberia

N/S	Community NAME	District	New well	Rehab well	Population est (2017)
1	Tehteh Town	District#4	No	YES	160
2	Russell Town	District#4	No	YES	375
3	Debah town	District#4	No	YES	288
4	Saturday-2 town	District#4	No	YES	106
5	Taybon Town	District#4	No	YES	295
6	Garkpah-2	District#4	No	YES	100
7	David Town	District#4	No	YES	135
8	Karsuah Town	District#4	No	YES	250
9	Gio Town	District#4	No	YES	755
10	Monyou tar	District#4	No	YES	577
11	Gbarpayewhea	District#4	No	YES	583
12	Ben Town	District#4	No	YES	246
13	Benzhon	District#4	No	YES	150
14	Pee	District#4	No	YES	125
15	Zondo 1	District#4	No	YES	1000
16	James Boduo	District#4	No	YES	103
17	Payechea	District#4	No	YES	240
18	Gueh 1	District#4	No	YES	76
19	Menyongar	District#4	No	YES	150
20	Tarlo	District#4	No	YES	227
21	Blayah	District#4	No	YES	275
22	Z- Pennegar	District#2	No	YES	76
23	Meetegar	District#2	No	YES	135
24	Jacob Town	District#2	No	YES	127
25	Paul Reeves	District#2	No	YES	140
26	Zoegban-1	District#2	No	YES	260
27	Zwahn Town	District#2	No	YES	220
28	Saturday#3	District#4	No	YES	210
29	Kollie town	District#4	Yes	No	60
30	Markar town	District#4	Yes	No	132
31	Wheh town	District#4	Yes	No	84
32	Damadama town	District#4	Yes	No	68
33	Fiamah	District#4	Yes	No	75
34	Tloyah town	District#4	Yes	No	195
35	Trodan	District#4	Yes	No	180
36	Myers' town	District#4	Yes	No	132
37	Zehmar Tar town	District#4	Yes	No	142
38	Num town	District#4	Yes	No	190
39	Than town	District#4	Yes	No	190
40	Wantoe town	District#4	Yes	No	240

41	Yor's town	District#4	Yes	No	93
42	Garkpah town	District#4	Yes	No	220
43	Gbarteah town	District#4	Yes	No	160
Total Population					9545

Project administration:

The project was implemented in collaboration with local communities and the local health authorities (district and county health teams). Concern's Health Programme Coordinator provided technical expertise for the implementation of the project, with support from the Site Engineer. The Multi Sector Programme Coordinator provided programmatic and budget management in coordination with the Programmes Director, Finance Manager and other key Concern staff. Concern Monitoring and Evaluation Team conducted rigorous monitoring of the project tracking project implementation and progress to ensure that the construction work is in conformity with Government of Liberia WASH Technical Guidelines.

Sustainability

Prior to construction, well sites were identified jointly by Concern staff, MoPWs and community dwellers. Concern strongly upholds the principle of active community participation and engagement in their own social and economic affairs and signs a Memorandum of Understanding (MOU) with each community stipulating their roles and expectations from Concern. It also ensures efficient and high quality programme implementation, and more importantly to foster ownership and ensure the sustainability of the project.

The community agreed to provide land, and local materials for fencing the wells. They also did the fencing work by themselves. The contractor was encouraged to employ local inhabitants in provision of construction labour, of which the contractor paid for at agreed rates. The target was to complete the wells during the dry season (October 2017 to May 2018) so as to achieve best yields for the new wells. Whilst new wells were constructed during the dry season, the timeframe on rehabilitations was slightly delayed due to numerous challenges encountered during the implementation, mainly related to the contractor being able to mobilise staff, and delays caused by their vehicles and equipment breaking down, and having to wait for spare parts. Additional rehabilitations were also concluded during the No Cost Extension (NCE) period, which extended into the rainy season, but this would not affect yields as these were all rehabilitations. All wells were engraved with JOAC and Concern visibility signs.

Safeguarding

Concern has established a Complaints Response Mechanism (CRM) in each community so that the community know their rights and exactly how and where to complain or give feedback to Concern Liberia in confidence via phone: 0886 775 053 / 0778 137 757 and email Liberia.Complaints@concern.net

Concern installed CRM (Complaints and Response Mechanisms) signboards in communities, including those hosting JOAC funded hand pumps. The signboards carry phone numbers and pictorial illustrations of how beneficiaries can report their complaints and feedback to Concern. Most of the communities Concern work in are extreme poor illiterates, so sometimes they found formal reporting challenging and preferred to report through Concern field staff. For instance, community dwellers reported delays by the contractor. They also reported on issues relating to work relationships with the contractor and Concern staff. However, most were reports were expressions of appreciation to Concern and the donor for providing them with safe drinking water.

**Output 2: Establish and train thirty WASH committees on operation and maintenance.
Completed 100% with 43 WASH committees trained**

A total of 43 WASH committees were established, one WASH committee per community that received the wells (rehabilitation or new). Each WASH committee comprises of seven members; two pump mechanics, chairperson, secretary, treasurer, pump caretaker and Community Health Volunteer (CHV). Seven members per committee x 43 committees = 301 members (36% female, 64% male). Disaggregation of members by their gender is shown on table2 below.

Table 2: Gender Disaggregation of WASH committee members

POSITION	FEMALE	MALE
Chairperson	10	33
Secretary	4	39
Treasurer	38	5
Pump mechanics	11	75
Pump caretaker	30	13
CHV	15	28
Total	108	193
Percentage	36%	64%

To ensure sustainability, Concern chose members of the WASH Committees and pump mechanics and caretakers based on their commitment to the community, their intention to remain in the community in the future, and their interest in learning about how the wells work.

All WASH committees were trained for two days on best hygiene and sanitation practices, group dynamics, the operation and maintenance of hand pumps, cost recovery mechanism to enhance sustainability. The trainings were conducted jointly by Concern and Ministry of Public health and the County Health Team. In addition this training, pump mechanics received an extra day training to give them the opportunity for hands-on practice, assembling and disassembling hand pumps, and installation.

All trainings were conducted well in advance of the start of the construction works, which has helped to increase community levels of vigilance, on-site supervision and participation. It also allowed members to put in practice the knowledge gained, as they worked along with the local contractor procured by Concern. A set of tools and spare parts such as hammer, spanner, fishing hook, u- seal, o- ring, bubbling were given to each community to enhance operation and maintenance of the hand pumps.

Ongoing collaboration with the local Government officials ensures ownership and also contributes to building their capacity through hands-on practice. The WASH committees were supported to develop action plans for maintenance of the hand pumps. These efforts, together with collaboration with the local Government partners contributes to sustainability.

Finally, crosscutting issues including accountability, gender, HIV/AIDS, environmental sensitivity and nutrition were mainstreamed in the WASH committee trainings. The WASH committee training manual has modules on inclusion of women, youth, elderly and people living with disabilities. Aimed at increasing gender sensitivity in our programmes, Concern programme staff received a 14-day training (with funding from Irish Aid) on gender transformative approaches of engaging men and women. Staff continue to apply the knowledge and skills across all programme interventions, ranging from the basics like seating arrangements during meetings and trainings, active participation of women, inclusive membership to WASH committees and other groups established by Concern etc. Issues relating to environmental protection were considered right from the stage of siting of the hand pumps, ensured that they are not sited on wetlands, placed emphasis in causing minimal damage to existing vegetation

cover, and the programme staff continue to encourage WASH management committees to control soil erosions by re-planting cover crops around the hand pumps. These messages were provided during training of WASH management committee members. HIV/AIDS is included in trainings to continue to raise awareness on this issue.

Monitoring and Evaluation

Concern field staff will continue to monitor performance of the WASH committees, as they undertake other activities in the communities funded by Irish Aid. It is anticipated that when that programme ends at the end of 2021 WASH Management Committees will still be functioning well, and will have established community mechanisms to ensure the sustainability of the well.



Water sample collection by MoPW/CHT for testing, GARKPAH#2. Photo taken by Stephen Z. Nyenatee



Verification by MoPW, Russell Town. Photo taken by Stephen Z. Nyenatee



Hands-on pump mechanic training at David Town. Photo taken by Stephen Z. Nyenatee

Challenges

- The digging of the new wells to deeper depths to reach the required water column posed the greatest challenge encountered by the team due to drier climate in the dry season and a lower water table as a result. The depths required were not fully anticipated by the team and contractor, but we are positive that the greater depth will result in better yield during dry seasons as well. In the past, wells dried in dry seasons. This was one of the significant reasons for the NCE request, as it meant the construction processes took longer than expected.
- Unexpected breakdowns of the construction contractor's (VANSIG) only vehicle due to poor roads and bridges in the areas of operation. Breakdown rates increased when conditions of roads worsened, with the heavy rains. As above, this was overcome through the NCE request which gave more time for the activities to be completed.
- Frequent relocation of sites due to hitting bedrock during excavation of the wells in the areas of operation. In Liberia, siting of the wells is done manually based on experience. The MoPW lacks capacity, in terms of equipment and personnel, to conduct geological surveys. There is a need for building this capacity in the future to increase accuracy of siting. We worked closely with the contractor to ensure that they continued testing locations, until they could find an appropriate site for excavation.

Annex 1: A Case Study from Town, District 4, Grand Bassa County – September 2018



Beneficiary Elder Jacob Whea
Photo by: D. Teah Nimely, Concern M&E Officer
Myers Town, Grand Bassa County, Liberia, September 2018

Elder Jacob Whea, age 82 and his family live in Myers Town, Grand Bassa County, Liberia. He and his wife, have children. The Whea family is a beneficiary of the Accelerating Access to Safe Water and Sanitation in Grand Bassa and Rivercess counties, Liberia, which is funded by the Jersey Oversea Aid Commission (JOAC) and implemented by Concern Worldwide in their community. The Programme Quality/M&E team from Concern Worldwide recently sat down with Elder Jacob to learn about the impact the safe water programme is having on his family.

Before receiving hygiene training and the hand pump, Elder Jacob's children experienced sicknesses caused by the contaminated water they were drinking and bathing in.

These sicknesses regularly resulted in hospital visits, which created unplanned medical expenses, taking a significant toll on the family.

"Since this town was founded about 50 years ago, this town has suffered for safe drinking water. Before Concern constructed the hand pump, we were spending a lot of money treating waterborne illnesses, such as diarrhoea, that our children were getting from the contaminated water we were using for drinking, bathing, and caring for our home," Elder Jacob shared. He also said "during the dry season, the creek that we used to drink from, gets dry and muddy, with nearly no water. We had to pull the grass from around the creek to find water to drink and cook."

However, since the construction of the hand pump and the hygiene training in our community, about six months ago, Elder Jacob told us that the children have not experienced any waterborne illnesses. "Safe drinking water is very important, as it helps us stay healthy. It is saving us money we used to spend on medical care because our children are no longer getting sick."



Alice Whea, WASH Committee member
Photo by: D. Teah Nimely, Concern M&E Officer
Myers Town, Grand Bassa County, Liberia, September 2018



Myers Town Previous Drinking Water Source
Photo by: D. Teah Nimely, Concern M&E Officer
Myers Town, Grand Bassa County, Liberia, September 2018

Annex 2: Pictures showing some of the steps to constructing a new well, in Than's town, Grand Bassa District #4; Photo by Stephen Stephen Z. Nyenatee, Concern Site Engineer
Than's Town, Grand Bassa County, Liberia, June 2018



Completed Afridev hand dug well in than town



Verification of completed well in Than Town.



Testing the pump in Than Town