

**MINISTRY OF SANITATION AND WATER RESOURCES
COMMUNITY WATER AND SANITATION AGENCY**



THIRD QUARTER PROGRESS REPORT

JULY 1 TO SEPTEMBER 30, 2019

THE CHIEF EXECUTIVE

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ACRONYMS

3-DWSS	3-Districts Water Supply Scheme
AF-SRWSP	Additional Financing - Sustainable Rural Water and Sanitation Programme
CLTS	Community Led Total Sanitation
CONIWAS	Coalition of Non-Governmental Organizations in Water and Sanitation

CROs	Community Relations Officers
CWSA	Community Water and Sanitation Agency
EPA	Environmental Protection Agency
GES	Ghana Education Service
GoG	Government of Ghana
GPS	Geographical Positioning System
GWCL	Ghana Water Company Ltd
HDPE	High Density Polyethylene
IDA	International Development Association (of the World Bank)
KDWSEP	Kweiman-Danfa Water Supply Expansion Project
KDWSS	Kweiman-Danfa Water Supply Scheme
KNUST	Kwame Nkrumah University of Science and Technology
KVIP	Kumasi Ventilated Improved Pit
LaDMA	La Dadekotopon Municipal Assembly
LeKMA	Ledzekuku-Krowor Municipal Assembly
MMDAs	Metropolitan, Municipality & District Assemblies
MSWR	Ministry of Sanitation & Water Resources
ODF	Open Defecation Free
OHLGS	Office of the Head of the Local Government Service
OWSS	Osudoku Water Supply Scheme
RICCS	Regional Inter-Agency Coordinating Committee on Sanitation
SAP	Sanitation Action Plan
SDG	Sustainable Development Goal
SHEP	Schools Hygiene Education Programme
UNICEF	United Nations Children's Fund

WASH	Water, Sanitation and Hygiene
WSMS	Water System Management Staff

EXECUTIVE SUMMARY

The report presents a comprehensive account of activities carried out by CWSA in the third quarter of 2019 towards the fulfillment of its mandate. The report encompasses third quarter achievements made against targets for financial & economic indicators, efficiency/productivity indicators, dynamic/management improvement indicators and operational/technical indicators. Activities carried out towards the management of Piped Water Systems and implementation status of ongoing projects are also highlighted.

At the end of the quarter under review, one hundred and twenty-five (125) Piped Water Systems came under CWSA's management. Rehabilitation works, repairs and maintenance, collection of baseline data, installations of bulk and service meters and implementation of water safety plans continued during the quarter.

A total income of GHS52,829,054, representing 82.27% of the target income of GHS 64,218,077 was generated, resulting in a shortfall of 17.73%

On productivity and efficiency indicators, two (2) sub-indicators under *New Boreholes Constructed* namely: *Boreholes sites selected*, and *Successful boreholes drilled* recorded 254% and 325% achievements respectively. *Successful boreholes with hand pumps installed* however, recorded the lowest achievement of 29.2%. Three (3) indicators under *CLTS Activities* recorded above 100% achievements. These are *Communities to Enter* (842%), *Open Defecation Free Communities* (275%) and *Household Latrines (VIPs) Constructed* (177%). Under *New Limited Mechanized Systems Constructed*, fourteen (14) systems were practically completed though there was no target. Also, two (2) out of forty-one (41) WSMTs under *Community Capacity Building* were formed and trained.

A total of 1,105,395.86 m³ (46.24%) of water was produced against a target of 2,390,563 resulting in a shortfall of 1,285,167.14 (53.76%). *Non-Revenue Water* of 23.96% was recorded against a target of 35% while *Payment Rate for Private Subscribers* stood at 48.3% against a target of 85%. *Average Water Consumption* for the quarter was 14.66 liters per capita per day against a target of 40 liters with *Average Water Tariff* of GHS4.79 against GHS4.9 target. *Household Connected with Water Meters* exceeded the target of 15% to 53.89% while *Average Vendors Commission/Total Revenue* stood at 14.06% as against 20% target.

CWSA currently has a total of one thousand and sixty-two (1,062) staff which comprise forty (40) Head Office staff, one hundred and eighty-three (183) Regional staff, four hundred and

ninety-four (494) Water System Management Staff and three hundred and thirty-five (335) Auxiliary staff. There is a staff deficit of twenty-three (23) at the Head Office and Regional levels.

In the quarter under review, CWSA organized its 2019 Review Conference at NODA Hotel, Fumesua in Ashanti Region to appraise its performance since the commencement of the reform programme in 2017.

The Chief Executive with some Directors (See page 20) went on a study trip to Germany between 22nd and 27th September 2019 to familiarize themselves with new solar energy technological innovations and products developed by Lorentz Company. A two-day training program was organized to improve WSMS and Regional staff capacity in the management of Piped Water Systems in the Upper West, Upper East, Northern, Ashanti and Brong Ahafo Regions. Engagements with key stakeholders in the WASH sector at the National, Regional, District and Community level on the reform agenda continued in the quarter under review.

Implementation of the Additional Financing for Sustainable Rural Water and Sanitation Project (AF-SRWSP) funded by the International Development Association (IDA) of the World Bank continued. Other projects which implementation continued in the third quarter include the Rotary International/USAID WASH Project, UNICEF/GoG WASH Project, Water Supply Improvement Project (WSIP) of the Ghana-Spain Debt Swap for Development Programme (DSDP), and Plan Ghana RWASH/ICWASH Project.

The operation of CWSA during the quarter was challenged with delays in staff deployment and replacement of malfunctioning bulk meters, lack of field test kits for water quality monitoring, over aged vehicles, erratic power supply and destruction of pipelines by road contractors.

1.0 INTRODUCTION

The Community Water and Sanitation Agency (CWSA) is mandated by an Act of Parliament, (Act 564), 1998, to facilitate the provision of sustainable safe water and related sanitation services to rural communities and small towns in Ghana. The Agency is committed to the reform programme which seeks to ensure sustainable management of Water Systems and also contribute towards the achievement of the government's 'Water for All Agenda' and the Sustainable Development Goal (SDG) six (6).

The report presents a comprehensive account of activities carried out by CWSA in the third quarter of 2019 towards the fulfillment of its mandate. It contains analysis of achievements made against targets set in WASH services delivery, capacity building, the sub-sector reform programme, income and expenditure. Assessment of key performance indicators, human resource management and ongoing WASH projects in the various Regions are also highlighted. The report ends with major challenges identified during the quarter, and recommendations for improving service delivery in the WASH sub-sector.

2.0 PERFORMANCE OF KEY INDICATORS

The performance assessment covers Financial/Economic indicators, Efficiency/Productivity indicators and Dynamic/Management Improvement indicators as stated in the Agency's 2019 performance contract signed with the Government of Ghana (GoG) through State Interests and Governance Authority (SIGA). The proceeding sub-sections contain a detailed assessment of the Agency's performance indicators.

2.1 Performance of Financial and Economic Indicators

A total of GHS52,829,054, representing 82.27% of the target income of GHS 64,218,077 was generated, resulting in a shortfall of 17.73%. All indicators under financial/economic achieved above 50% of the targets for the third quarter except *Government of Ghana Subsidy* which achieved 17.65% of its target. Details on the performance of financial and economic indicators are presented in Table 1.1.

Table 1.1: Performance of Financial/Economic Indicators

RECEIPTS	ANNUAL BUDGET (GHC)	THIRD QUARTER BUDGET (GHC)	YEAR TO DATE BUDGET (GHC)	THIRD QUARTER ACTUAL (GHC)	YEAR TO DATE ACTUAL (GHC)	YEAR TO DATE VARIANCE (GHC)	THIRD QUARTER ACTUAL (%)
Revenue from sale of water	24,861,854	6,215,464	18,646,391	3,822,519	11,275,597	-7,370,794	61.50
Other Income	1,458,418	364,605	1,093,814	1,013,531	2,514,901	1,421,087	277.98
Government of Ghana Subsidy	37,395,719	9,348,930	28,046,789	1,650,001	6,181,703	-21,865,086	17.65
Donor Inflow	180,821,493	45,205,373	135,616,120	43,526,816	101,477,879	-34,138,241	96.29
Funding from GWCL	12,334,824	3,083,705	9,251,118	2,816,186	9,251,118	0	91.32
TOTAL	256,872,308	64,218,077	192,654,231	52,829,054	130,701,198	-61,953,033	82.27

2.2 Performance of Efficiency and Productivity Indicators

The performance of efficiency and productivity indicators are discussed in the proceeding subsections.

2.2.1 Water Supply Systems

A total of one-hundred and twenty-two (122) *borehole sites* were selected against a target of forty-eight (48) while one-hundred and fifty-six (156) *boreholes* were drilled against a target of forty-eight (48). Also, fourteen (14) out of forty-eight (48) *boreholes with hand pumps* were installed. Though there was no target for *systems practically completed* under the new limited mechanized systems constructed, a total of fourteen (14) were completed. Under Small Towns Piped Systems Rehabilitated, four (4) *Systems with Feasibility Studies* were completed while one (1) out of five (5) systems were contracted out. Indicators under *New Small Communities Piped Systems Constructed*, *Small Towns Piped Systems Constructed*, *Small Communities Piped Systems Rehabilitated*, and *GWCL Piped Connections Completed* recorded zero. Find details in Table 1.2.

2.2.2 Sanitation Indicators

During the quarter, *Open Defecation Free* was achieved in two hundred and seven-five (275) communities against a target of one hundred (100). Five hundred and ten (5,310) *Household Latrines (VIPs)* were constructed against a target of three thousand (3,000) while three hundred and ninety (390) *Institutional Latrines* were constructed. Details are highlighted in Table 1.2.

2.2.3 Community Capacity Building Indicators

Two (2) out of forty-one (41) WSMTs (point systems) were formed and trained during the quarter. *New Communities in National CWSA Programme* recorded zero. Details on water supply systems, sanitation and community capacity building are presented in Table 1.2.

Table 1.2: Performance Indicators and Achievements

Performance Criteria	Unit of Measurement	2019 Annual Target	Q3 Target	Q3 Achievement	Variance for Qtr. 3	% Achieved in Qtr. 3	Cumulative Results January to Sept	
							Target	Achievement
B. EFFICIENCY AND PRODUCTIVITY INDICATORS								
Water Supply Systems								
New Boreholes Constructed								
1. Boreholes sites selected	No.	189	48	122	74	254	143	232
2. Successful boreholes drilled	No.	189	48	156	108	325	143	297
5. Successful boreholes with hand pumps installed	No.	189	48	14	(34)	29.2	143	44
New Small Communities Piped Systems Constructed								
1. Systems with feasibility studies completed	No.	0	0	0	0	0	0	7
2. Systems with designs completed	No.	0	0	0	0	0	0	0
3. Systems contracted out	No.	0	0	0	0	0	0	0
4. Systems Practically completed	No.	0	0	0	0	0	0	0
Small Towns Piped Systems Constructed								
1. Systems with feasibility studies completed	No.	29	7	0	(7)	0	65	0
2. Systems with designs completed	No.	29	7	0	(7)	0	65	0
3. Systems contracted out	No.	29	7	0	(7)	0	65	0
4. Systems practically completed	No.	14	4	0	(4)	0	32	0
New Limited Mechanized Systems Constructed								

Performance Criteria	Unit of Measurement	2019 Annual Target	Q3 Target	Q3 Achievement	Variance for Qtr. 3	% Achieved in Qtr. 3	Cumulative Results January to Sept	
							Target	Achievement
1. Systems with feasibility studies completed	No.	0	0	0	0	0	0	0
2. Systems with designs completed	No.	0	0	0	0	0	0	0
3. Systems contracted out	No.	0	0	0	0	0	0	0
4. Systems practically completed	No.	0	0	14	14	0	0	14
Small Communities Piped Systems Rehabilitated								
1. Systems with feasibility studies completed	No.	0	0	0	0	0	0	0
2. Systems with designs completed	No.	0	0	0	0	0	0	0
3. Systems contracted out	No.	0	0	0	0	0	0	0
4. Systems practically fully completed	No.	0	0	0	0	0	0	0
Small Towns Piped Systems Rehabilitated								
1. Systems with feasibility studies completed	No.	0	0	4	4	0	0	4
2. Systems with designs completed	No.	0	0	0	0	0	0	0
3. Systems contracted out	No.	20	5	1	(4)	20	15	1
4. Systems practically fully completed	No.	20	5	0	(5)	0	15	0
GWCL Piped Connections Completed								
1. Systems with designs completed	No.	9	2	0	(2)	0	4	0
2. Systems contracted out	No.	9	2	0	(2)	0	4	0
3. Pipe connections to communities completed	No.	9	2	0	(2)	0	4	0
Sanitation Facilities								
CLTS Activities								
1. Communities to Enter	No	141	36	303	(267)	842	107	677

Performance Criteria	Unit of Measurement	2019 Annual Target	Q3 Target	Q3 Achievement	Variance for Qtr. 3	% Achieved in Qtr. 3	Cumulative Results January to Sept	
							Target	Achievement
2. Open Defecation Free Communities	No	450	100	275	(175)	275	300	554
3. Household Latrines (Digni Loo) Constructed	No.	0	0	410	410	0	0	410
4. Household Latrines (VIPs) Constructed	No.	14,000	3,000	5,310	2,310	177	9,000	12,711
Institutional Latrines Constructed	No.	0	0	390	390	0	0	403
1. Latrines under construction	No.	0	0	0	0	0	0	3
2. Latrines (KVIPs) completed	No.	0	0	0	0	0	0	98
Community Capacity Building Activities								
1. New Communities in National CWSA Programme	No.	0	37	0	(37)	0	74	12
2. WSMTs formed ** (point system)	No.	148	41	2	(39)	4.9	119	28
3. WSMTs trained (point system)	No.	161	0	2	2	-	40	17
i. Pre-construction stage	No.	0	0	0	0	0	0	5
No. of new Pipe systems under CWSA management	No.	30	7	11	4	157.14	15	21

*WSMTs in place refers to the number of Water and Sanitation Management Teams comprising “a set of people elected to be in charge of a point water facility (borehole)” and not the individual members in the Team.

***Categories under WSMTs trained are explained as follows:

Pre-construction training: Mobilization/Planning;

Post-construction training: User education/Follow-up (O&M) in both cases refers to the number of Committees and not the individual members.

2.3 Performance of Dynamic/Management Improvement Indicators

Table 1.3 shows the analysis of dynamic and management improvement indicators for the third quarter of 2019.

Table 1.3: Performance of Dynamic and Management Improvement Indicators

Performance Criteria	Unit of Measurement	Annual Target	3 rd Quarter Target	3 rd Quarter Achievement	Cumulative Achievement

Performance Criteria	Unit of Measurement	Annual Target	3rd Quarter Target	3rd Quarter Achievement	Cumulative Achievement
Dynamic Effects					
Submission of 2019 Budgeted Staff Training Programme	Month	January	January	Not yet submitted	Not yet submitted
Percentage Implementation of 2019 Budgeted Training Programme	%	100	25	20	70
Submission of Draft Strategic Investment Plan (2020-2023)	Month	October	October	Not yet submitted	Not yet submitted
Submission of 2019 Maintenance Programme for Assets	Month	January	January	May	May
Percentage Implementation of 2019 Maintenance Programme for Assets	%	100	25	20	80
Submission of 2019 Safety Plan	Month	January	January	May	May
Percentage Implementation of 2019 Safety Plan	%	100	25	20	80
Submission of 2019 Water Safety Plan	Month	January	N/A	Not yet Submitted	Not yet Submitted
Implementation of 2019 Water Safety Plan	%	100	25	40	Information not available
Management Improvement/ Projects					
Submission of Quarterly Reports	Weeks after Quarter	6	6	8	Reports submitted 8, 12 and 8 weeks after end of 1 st , 2 nd and 3 rd Quarters respectively
Conformance to SEC reporting format	No. of Items	6	6	To be determine by SIGA	To be determine by SIGA
Submission of 2018 Audited Financial Statements	Month	April	April	September	September
Submission of 2020 Draft Performance Contract	Month	October	October	November	November
Submission of 2020 Draft Budget	Month	August	August	November	November
Submission of copies of Invitation Letters to Board meetings	Weeks after meeting	1	17 th July and 13 th Sept 2019 (Meeting held on 10 th July &	15 th July and 10 th Sept 2019	Submitted on 15 th May for two meetings (1 st meeting held on 12 th February and 2 nd meeting held on 18 th April) and 15 th July & 10 th Sept 2019 for 3 rd & 4 th

Performance Criteria	Unit of Measurement	Annual Target	3rd Quarter Target	3rd Quarter Achievement	Cumulative Achievement
			6 th Sep respectively)		Meeting held on 10 th July and 6 th Sept 2019
Submission of copies of Board attendance List to meetings	Weeks after meeting	1	17 th July and 13 th Sept 2019 (Meeting held on 10 th July & 6 th Sep)	15 th July and 10 th Sept 2019	Submitted on 15 th May for two meetings (1 st meeting held on 12 th February and 2 nd meeting held on 18 th April) and 15 th July & 10 th Sept 2019 for 3 rd & 4 th Meeting held on 10 th July and 6 th Sept 2019
Submission of 2018 Board Evaluation report	Month	January	January	Not yet submitted	Not submitted
Submission of 2020 Procurement Plan	Month	November	N/A	N/A	N/A

2.4 Technical and Operational Indicators

Total Water Produced as at end of the third quarter was 1,105,395.86m³ (46.24%) against a target of 2,390,563m³. This resulted in a deficit of 1,285,167.14 m³ (53.76%). *Non-Revenue Water* was 23.96% against a target of 35% while *Payment Rate for Private Subscribers* stood at 48.3% against a target of 85%. *Average Water Consumption* for the quarter was 14.66 liters per capita per day against a target of 40 liters, with *Average Water Tariff* of GHS4.79 as against GHS4.9. *Household Connected with Water Meters* exceeded the target of 15% to 53.89% while *Average Vendors Commission/Total Revenue* stood at 14.06% as against the target of 20%. Detail achievements on the technical and operational indicators are presented in Table 1.4.

Table 1.4 Technical and Operational Indicators

Performance Indicators	Unit of Measure	Annual Target 2019	Quarter 3 Target 2019	Quarter 3 Achievements
Administrative Cost/Total Revenue from Sale of Water	%	35.23	35.23	62.04
WSMT Salary/Total Revenue from Sale of Water	%	59.66	59.66	59.00
No. of New Pipe System under CWSA Management	No.	30	7	0
Non-Revenue Water	%	35	35	23.96
Total Water Production	M ³	9,562,252	2,390,563	1,105,395.86
Payment Rate for Private Subscribers	%	85	85	48.3
Average Water Consumption	Liters	40	40	14.66
Average Water tariff	GH¢	4.9	4.9	4.79
Household Connected to Water Meters	%	60	15	53.89
Recurrent Expenditure/Total Revenue from Sale of Water	%	94.89	94.89	115.44
Average Vendors Commission/Total Revenue	%	20	20	14.06

3.0 HUMAN RESOURCE AND GENERAL ADMINISTRATION

3.1 Management

The Head Office, Regional and Water System Management Staff continued to effectively collaborate on issues of Technical, Planning and Investments, Extension Services, Management Information System (MIS), Finance and Administration. This translated into efficient delivery of WASH services to rural communities and small towns across the country. Also, management continued to organize staff meetings to deliberate and devise strategies to solving challenges and engaged stakeholders on the reform process. A meeting was held on 10th July 2019 by CWSA Board members and key issues discussed were: the Cabinet Memorandum on the Policy Reforms, a schedule meeting between CWSA and GWCL Board members and office establishment in the six (6) newly created Regions.

The CWSA maiden Annual General Meeting of Stakeholders/Shareholders was held on the 6th September 2019 in which the Annual report and Financial Statements for year 2018 were presented and discussed.

Monitoring and supervision of the management of Piped Water Systems and other WASH activities continued in the quarter under review.

3.2 Staffing

CWSA as at the end of the quarter, had a total of one thousand and sixty-two (1,062) staff. This comprise forty (40) Head Office staff, one hundred and eighty-three (183) Regional staff, four hundred and ninety-four (494) Water System Management Staff and three hundred and thirty-five (335) Auxiliary staff. There is a staff deficit of twenty-three (23) at the Head Office and Regional levels. CWSA's staffing situation as at the end of the quarter is presented in Table 1.5 and 1.6.

Table 1.5: Staff Strength and Vacancies at the Head Office and Regional Levels

Staff \ Region	AR	BAR	CR	ER	GAR	NR	UER	UWR	VR	WR	HQ	Total
Expected	18	16	29	19	20	20	20	19	20	19	44	244
Available	17	16	27	17	15	18	18	19	19	17	40	223
Vacancies	1	0	2	2	5	4	2	-	1	2	4	23

Table 1.6: Staff Strength at the Water System Management Level

Region Staff	AR	BAR	CR	ER	GAR	NR	UER	UWR	VR	WR	Total
WSMS Available	57	45	71	73	43	45	49	52	59	37	494
Auxiliary Available	47	31	44	50	36	25	37	51	34	22	335

3.3 Training and Development

The Chief Executive, Director of Technical Services, Chief Water and Sanitation Engineer, Chief Hydrogeologist, Regional Director- Eastern and Upper West Regions went on a study trip to Germany between 22nd to 27th September 2019. The purpose of the trip was to familiarize themselves with new solar energy technological innovations and products developed by Lorentz Company.

A two-day training program was organized to improve WSMS and Regional staff capacity in the management of the Piped Water Systems in the Upper West, Upper East, Northern, Ashanti and Brong Ahafo Regions.

Also, seventy-five (75) CWSA staff which comprise twenty-five (25) Head Office staff, thirty (30) Regional and twenty (20) Water System Management Staff participated in a five-day review conference organized at NODA Hotel from the 2nd to 6th September 2019 in Fumesua, Ashanti Region. The purpose of the conference was to appraise the performance of CWSA since the commencement of the reform programme in 2017. Present were CWSA Board of Directors, representatives from the Ministry of Sanitation & Water Resources (MSWR), Parliamentary Select Committee on Works and Housing, Office of the Head of the Local Government Service (OHLGS), Ashanti Regional Coordinating Council, Ejisu Municipal Assembly, Kwame Nkrumah University of Science and Technology (KNUST), the United Nations Children’s Fund (UNICEF), the Coalition of Non-Governmental Organizations in Water and Sanitation (CONIWAS) and Public Utility Workers Union.

The conference was organized on the theme; “*Steps Towards a Utility Service Organization: The Success Story, the Challenges and the Way Forward*”. The objectives of the conference included: to evaluate the achievements and constraints of CWSA’s management of Piped Water Systems; document lessons learnt in the management of Piped Water Systems; deliberate on innovative approaches in finance, technology and other relevant themes;

formulate strategies to consolidate the gains made in the last two years and scale up towards the completion point.

A two (2) day training programme for all Regional and Water System Management Staff in the Northern Region was held at the University for Development Studies (UDS) International Conference Centre, Tamale on the 14th and 15th August 2019. The training programme was aimed at improving staff competencies in their area of work.

4.0 MANAGEMENT OF PIPED WATER SYSTEMS AND STATUS OF ON-GOING PROJECTS

CWSA continued to manage Piped Water Systems while facilitating the provision of water and sanitation facilities to small towns and rural communities in Ghana. Details of progress made in the various Regions are highlighted in the sub-sections below:

4.1 ASHANTI REGION

Ashanti Region has fourteen (14) Piped Water Systems under nine (9) management units. Manso Atwere Water System has been non-functional since the Region took over its management. Repairs and maintenance works have been carried out in all Piped Water Systems under the Region's management. During the quarter, stakeholder engagements towards the management of Bekwai, Ejura and Sekyere-Dumasi Piped Water Systems were carried out.

The Region in collaboration with the Head Office Planning Committee, successfully organized and hosted the 2019 CWSA Review Conference from 2nd to 6th September 2019, at NODA Hotel in Fumesua.

4.1.1 Operations of Water Systems

Updates on Piped Water Systems Managed by the Region

Piped Water Systems under the Region's management include: Akrokerri Piped Water System in Adansi North District, Juaben Piped Water System in Juaben Municipal, Manso Nkwanta Piped Water System in Amansie West District, Onwe and Kwaso Piped Water Systems in Ejisu Municipal, Atwedie, Bompata, Juaso and Dampong Piped Water Systems in Asante Akim South District, Adugyama, Sabronum, and Mankranso Piped Water Systems in Ahafo Ano South District, Abodom Piped Water System in Bekwai Municipal, and Atwere Piped Water System in Amansie West District. Efforts are also underway to bring additional three (3) Water

Systems under the Region's management. These are Bekwai, Ejura and Sekyere-Dumasi Piped Water Systems.

Baseline Data Collection (Survey)

Baseline data for four (4) Water Systems namely Manso Atwere, Bekwai, Ejura and Sekyere - Dumase were gathered during the quarter. The preliminary design of the Manso Atwere Piped Water System has been completed. Also, the Bekwai Piped Water System is set to be transferred to CWSA management effective 1st November 2019. Technical assessment has been carried out in Ejura and Sekyere -Dumase Piped Water Systems.

Performance Contract

Performance Contracts have been signed with all Water System Managers and copies sent to the Head Office.

Repairs and Maintenance of Piped Water Systems

Repairs and maintenance carried out included: replacement of ten (10) safety valves for standpipes at Akrokeri Water System, replacement of bulk meters at Adugyama Water System, repairs of burst pipelines and faulty meters at Mankronso, and Sabronum Water Systems, and expansion of distribution networks at Abodom Water System.

Water Quality/Safety Issues

As part of activities to improve on water quality and safety, the Region undertook washing of storage reservoirs and disinfection of boreholes at Juaben, Manso Nkwanta, Onwe, Kwaso, Atwedie, Bompata, Dampong, and Adugyama Piped Water Systems. Flushing of distribution pipelines, routine backwashing of sand filters and cleaning of the cascade aerator were also carried out at Akrokerri, Abodom and Juaso Piped Water Systems.

4.1.2 Stakeholders' Engagement

The Region engaged chiefs, community members and MCEs of Bekwai and Ejura -Sekyere-Dumasi Municipalities to deliberate on the need for CWSA Ashanti Region to manage water systems in the respective Municipalities.

4.1.3 Status of Ongoing Project in Ashanti Region

Rehabilitation of Seneagya Water project is currently ongoing. The second site meeting was held during the quarter and work done is estimated to be 75% completed.

4.2 AHAFO, BONO AND BONO EAST REGIONS

The CWSA Regional Office in the Bono Region had additional responsibility of facilitating ongoing activities in the newly created Regions; Bono East and Ahafo. Also, the Region continued the implementation of the water and sanitation component of the AF-SRWSP. The number of communities declared ODF increased from eighty-eight (88) to one-hundred and thirteen (113) while latrines constructed increased by 410 resulting in 3,185 total latrines constructed.

4.2.1 Operations of Water Systems

Updates on Piped Water Systems Managed by the Region

The Region has six (6) Piped Water Systems under its management namely; Akuma-Brahoho Piped Water System in Nkoranza South Municipal, Krobo Piped Water System in Techiman North District, New Longoro Piped Water System in Kintampo North Municipal, Wenchi Piped Water System in Wenchi Municipal, Kwame Danso Piped Water System in Sene West District and Nkrankwanta Piped Water System in Dormaa West District.

Performance Contract

The 2020 Water Systems Performance Contracts have been prepared and yet to be signed between the Regional Office and the Water Systems Management Staff.

Rehabilitation

Rehabilitation works on the Mim Piped Water System is ongoing. The installation of four (4) submersible pumps were completed. The installation of the Photo-Voltaic pump has not been completed as the transmission lines are yet to be constructed to link the pumps to the tank.

Water Quality/Safety Issues

Water quality and safety monitoring activities carried out during the quarter include: Chlorine dosage, refilling of pH/ Residual Chlorine Test Kits, physical inspection of storage tanks and Sanikits for debris and rust, and physical inspection of the treated water for taste, odour and colour. The Region conducted bacteriological analysis which revealed zero counts of *E. coli*, total coliform and total viable counts in all the Water Systems except for the Goaso Water System. However, the water quality test conducted for Goaso Water System only sought to establish the baseline water safety issues as at the time CWSA took over management.

Registration of Private Customers

Registration of potential customers in five (5) communities with Piped Water Systems under construction continued. The following figures were recorded in the respective communities: Asiri (320), Jankufa (120), Dotobaa (240), Prang (644) and Brosankro (314).

New Customer Connections

A total of 115 new customers were connected and water meters installed out of the 222 applications received. Also, a total of 101 defective water meters were replaced for existing customers.

4.2.2 Status of Ongoing Projects in Ahafo, Bono and Bono East Regions

The implementation of the AF-SRWSP is currently ongoing in the Region. Under the water component of the project, average progress of civil works for five (5) Piped Water Systems was estimated as 97.80% completed. Specifically, estimated completed works in the communities are as follows: Asiri (97%), Jankufa (98%), Prang (98%), Dotobaa (98%) and Brosankro (98%). Also, electromechanical works was estimated to be 94% completed.

Under the sanitation component, thirty-three (33) communities were triggered for ODF in the third quarter resulting in a cumulative achievement of one hundred and seventy-two (172) communities. Four hundred and ten (410) Digni Loo household latrines were completed in the quarter bringing the total completed since the inception of the project to three thousand, one hundred and fifty-eight (3,158) representing 94% of the project target. A total of one hundred and thirteen (113) communities were declared ODF which represents 120% of the project target. Construction of ninety-five (95) School Teacher Latrines were completed in thirty-six (36) schools in thirteen (13) Districts representing 100% of the project target. Status of ongoing projects in the Region are detailed in Table 1.7.

Table 1.7: Status of On-going Projects in Ahafo, Bono and Bono East Regions (Cumulative up to Third Quarter)

Project Name(s)/ Funding Source/ Duration	Amount Received or Transferred Through the Region to Date	Overall Project Target for the Region	Cumulative Achievement (Since Project Inception to End of Quarter)	2019 3 rd Quarter Target	2019 3 rd Quarter Achievement	Remarks/ Challenges	
Additional Financing- Sustainable Rural Water and Sanitation Project International Development Association of the World Bank (IDA) Duration: 2018-2019	GHC1,422,082.37	WATER SUPPLY					
		5no. Small Town Water Systems constructed	<ul style="list-style-type: none"> • 97.80% Civil Works completed • 94.0% Electromechanical works completed 	-	-	Works within schedule Works within Schedule	
		SANITATION					
		129 Communities triggered for ODF	172 Communities triggered for ODF	0	33	133% Achieved cumulatively	
3,350 Household Digni Loo latrines constructed	3,158 latrines constructed	0	410	94% Achieved cumulatively			
94 ODF Communities Declared	113 ODF Communities declared	0	33	120% Achieved Cumulatively			
CAPACITY BUILDING		-	-	-	-		

4.3 CENTRAL REGION

The Region intensified the facilitation and monitoring of reform activities during the quarter under review. Repairs and maintenance of some Piped Water Systems and stakeholders' engagements in all MMDAs in the Region were also carried out. Details of activities are presented in the sub-sections below:

4.3.1 Operations of Water Systems

Updates on Piped Water Systems Managed by the Region

The Region is currently managing seventeen (17) Piped Water Systems in eight (8) MMDAs. These include: Assin Fosu Piped Water System in Assin Fosu Municipal, Endwa-Aponsie-Brofoyedur-Akonfudi, Assin Bereku, Assin Akropong-Wurakese, Assin Praso-Dansame, Akropong and Buabin Piped Water Systems in Assin North District, Andoe-Kyinso-Besease/Assin Manso and Asamankese-Achiase Piped Water Systems in Assin South District, Asuansi Nyamedom and Enyinabrim-Ndansiman Piped Water Systems in Abura Asebu Kwamankese District, A beadze Dominase Piped Water System in Mfantseman Municipality, Buabin-Subroso and Kwameprakrom-Amisahkrom Piped Water Systems in Upper Denkyira East District, Domenase-Breman Abora, Ntom-Bethlehem and Effiefiso-Subin-Akwaboso Piped Water Systems in Upper Denkyira West District and Breman Bedum Piped Water System in Asikuma Odoben Brakwa District.

Performance Contract

Performance Contracts for all the Water Systems have been completed and yet to be signed.

Repairs and Maintenance of Water Systems

Major repairs and maintenance works done included welding of pipes at Assin Fosu and Subin-Akwaboso-Amoya Water Systems and cleaning and redevelopment of thirteen (13) borehole sources.

Rehabilitation of Piped Water Systems

Budgets for rehabilitation works on Piped Water Systems have been submitted to the Head Office. The Region is awaiting approval and disbursement of funds for implementation to commence.

Water Quality/Safety Issues

The high content of Iron, Salt and Manganese in the Region continue to affect the quality of water produced. The treatment plant for Effiefiso/Akwaboso/Subin Piped Water System is currently broken-down which affects quality of water produced.

The 2020 Water Safety Plans for all the seventeen (17) Piped Water Systems are under preparation and is expected to be completed within the fourth quarter. The Water Safety Plans are anticipated to help address water quality issues in the Region.

4.3.2 Stakeholders' Engagement

Stakeholders' engagement was carried out in Assin South, Esikuma, Odoben, Brakwa, Upper Denkyira East and West Districts. The purpose of the engagements was to bring more Piped Water Systems under the management of CWSA and address water service delivery challenges.

4.3.3 Status of Ongoing Projects in Central Region

Ongoing projects in the Region include AF-SRWSP, Plan Ghana IWASH/ICWASH Project, Rotary International/USAID WASH Project, UNICEF/GoG WASH Project and GWE/GIZ Collaboration Project. Details of the projects are discussed in the sub-sections below:

AF-SRWSP

Implementation activities are progressing steadily under this project. As at end of the quarter under review, the overall average civil works done was estimated as 86.00% out of which only 75.18% had been invoiced. Details on work done by each contractor is shown in Table 1.8.

Table 1.8: Summary of Works Completed as at 31 September 2019

Lot	District	Name of Contractor	% of Works Invoiced	% Progress		Remarks
				Achieved	Target	
AE1	Ajumako Enyan Essiam	Kaddacom Ltd	87.30	95.00	87.5	Includes Addendum of 4km pipeline extension.
AE2	Ajumako Enyan Essiam	Betterworld Eng. Ltd	83.50	91.00	100	Additional communities + pressure testing
AE3	Ajumako Enyan Essiam	China Shanxi Sijian Group Ltd	68.40	85.00	100	Additional communities + pressure testing+ pump installation
AE4	Ajumako Enyan Essiam	Western Water Works	85.00	96.00	100	Additional communities + pressure testing
AE5	Ajumako Enyan Essiam	Vicco Ventures Ltd	73.50	77.00	87.5	Includes 750m ³ Ground Tank construction+ pressure testing
AE6	Ajumako Enyan Essiam	Donajos Company Ltd	55.20	75.00	100	Finishing, fencing, furniture
ASS1	Assin South / Abura Asebu Kwamankese	Hydronomics Ltd	81.00	90.00	100	Additional communities + pressure testing+ pump installation
MF1	Mfantseman	2K Construction Ltd	71.80	85.00	100	Pressure testing + site development + fencing
GW1	Gomoa West	Deccos Investment Ltd	65.00	70.00	100	Additional communities + pressure testing
AS1	Awutu Senya/Awutu Senya East	Blessedfield Ltd	92.40	98.00	100	Pressure testing
AS2	Awutu Senya/Awutu Senya East	2K Construction Ltd	65.00	80.00	100	Includes Addendum 5km 250mm HDPE pipeline replacement + pressure testing
AS3	Awutu Senya/Awutu Senya East	Jonako Construction Company Limited	77.30	80.00	100	Finishing, fencing, furniture
AOB	Asikuma Odoben Brakwa	Zigma Engineering	72.00	96.00	100	Pressure testing
OVERAL AVERAGE WORKDONE			75.18	86.00	98.08	

Sanitation Status of AF-SRWSP

A total of 1,294 and 255 Digni-loos and non-digni-loos latrines respectively were constructed as at the end of the quarter. Also, seventy-eight (78) institutional Digni-loos were constructed for twenty-five (25) beneficiary institutions in nine (9) MMDAs. The RICCS conducted ODF verification exercises for thirty-three (33) communities, out of which thirty-one (31) passed. The two (2) communities failed as a result of their unwillingness to demolish an old public latrine. Details of the achievements made within the quarter are highlighted in Table 1.9.

Table 1.9: Sanitation Status of AF-SRWSP

S/N	MMDAS	Digni-Loo supplied	Non-Digni-Loo Latrine Under construction	Digni-Loo Latrine Under Construction	Total Under construction	Non-Digni-Loo Latrine Completed	Digni-Loo Latrine Completed	Total Completed	Handwashing Facilities Installed
1	AAK	164	0	103	103	0	55	55	21
2	AEDA	261	11	289	297	21	58	76	34
3	AEEDA	171	0	94	94	0	29	29	8
4	AOB	73	0	65	65	0	0	0	0
5	AWMA	671	12	673	685	5	175	180	7
6	Awutu Senya	105	0	46	46	17	3	20	0
7	ASDA	294	222	9	231	27	113	140	11
8	ANDA/A FMA	281	3	65	68	29	182	211	232
9	MMA	210	2	78	80	0	106	106	29
10	GCDA	250	3	22	25	0	25	25	0
11	GEDA	90	0	43	43	0	0	0	0
12	GWDA	90	7	76	83	4	16	20	10
13	TAMDA	374	0	529	529	15	206	221	175
14	HLDDA	186	1	103	104	32	85	117	48
15	UDEMA	270	260	229	489	41	165	206	196
16	UDWDA	315	91	274	365	64	76	140	115
TOTAL		3,805	612	2,698	3,307	255	1,294	1,546	886

Rotary International/ USAID WASH Project

During the quarter under review, the Region evaluated tenders from contractors for the construction of four (4) Mwacafe water treatment plants for four (4) point sources with water quality challenges. The evaluation report has been forwarded to the Head Office for approval.

Plan Ghana RWASH/ICWASH Project

The Region monitored the successful drilling of three (3) boreholes in three (3) beneficiary communities. This brings the total number of successful boreholes drilled to fifteen (15) out of the expected seventeen (17) boreholes. Three (3) communities, namely: Fawomanya, Kwasiwikrom and Suromanya had unsuccessful boreholes drilled and have therefore been earmarked to be connected to GWCL lines. Field assessment for civil works was also completed. Again, pumping tests, borehole redevelopment and water quality tests were also carried out for existing one (1) borehole each at Oboyambo and Tawiakwaa for mechanization.

GWE/GIZ Collaboration Project

The Region in collaboration with GWE/GIZ is piloting the use of Smart Pumps on some point sources as part of efforts to enhance water service delivery using technology. As a result, a Smart Pump and Aqua Solar Smart Handpump have been installed on Asuansi/Nyamedom Piped Water System and Opem mechanized Water System respectively. The installations are currently on test-run and data is being collected remotely on the performance of the Smart Pumps and boreholes.

UNICEF/GoG WASH Project

During the quarter under review, the Region undertook monitoring visits to Katakyaase and Ankukrom in the Abura Asebu Kwamankese and Ajumaku Enyan Essiam Districts respectively, to review and update the Water and Sanitation Plans.

The cumulative achievement of all the projects up to third quarter is presented in Table 1.10:

Table 1.10: Status of Ongoing Projects in Central Region (Cumulative up to Third Quarter)

Project Name(s)/ Funding Source/ Duration	Amount Received or Transferred Through the Region to Date (GHC)	Overall Project Target for the Region	Cumulative Achievement (Since Project Inception to End of Quarter)	2019 3 rd Quarter Target	2019 3 rd Quarter Achievement	Remarks/ Challenges
AF-SRWSP	1,261,883.38	<ul style="list-style-type: none"> • 9No. Small Towns Pipe Water System connected to GWCL (for 83 communities) • 3330No. Household latrines constructed (Digni-Loo) • 90No. ODF communities 	<ul style="list-style-type: none"> • All Systems under constructions • 1294 Dign-loos completed • 255. HHs latrines constructed (non -Digni-Loo) • 31No. ODF Communities 	<ul style="list-style-type: none"> • 15No. communities connected to GWCL • 1000No. Household latrines constructed (Digni-Loo) • 15No. ODF Communities 	<ul style="list-style-type: none"> • All 83No. Connected but water is yet to flow • 670 Digni-loo completed • 255NO. non-digni-loos completed • 31No.ODFs achieve 	<ul style="list-style-type: none"> • All the STPSs are under construction and in various levels of completion • 625No. HHs (pits dugged and superstructure material avail. • 886No. of HHs have Handwashing facilities
Rotary/USAID WASH Project	61,300.30	<ul style="list-style-type: none"> • 8No.BHs Construction • 13No.KVIPs 	<ul style="list-style-type: none"> • 8No. successful BHs with handpumps installed • 13No.KVIPs Latrines constructed 	-	-	-
UNICEF/GoG WASH Project	280,533.77	-	-	-	Monitored the implementation of Water Safety Plans in Ankukrom & Katakyaase	-
PLAN GHANA – RWASH/ICWASH Project	27,743.36	17No. BHs Construction	15No. BHs drilled	6No. BHs drilled	3No. BHs drilled	-
GIZ/GWE smart pumps piloting	5,495.95	Piloting of smart pumps on 4No. water systems	Installation of smart pumps on 2No, water systems	-	Installation of smart pumps on 2No, water systems	-

4.4 EASTERN REGION

CWSA Eastern Region increased Piped Water Systems under its management from eight (8) to seventeen (17) during the quarter. However, the Akim Sekyere Piped Water System is currently not under the Region's management because of the community's unwillingness to accept tariff rationalization. The Region continued with rehabilitations works, repairs and maintenance, water quality/safety issues and intensified stakeholders' engagements during the quarter.

4.4.1 Operations of Water Systems

Updates on Piped Water Systems Managed by the Region

As at the end of the third quarter, CWSA Eastern Region had a total of sixteen (16) Piped Water Systems managed in eleven (11) Districts. These include: Akooko and Asiakwa Piped Water Systems both in Abuakwa South District, Akroso Piped Water System in Akroso Asene Manso, Asesewa Piped Water System in Upper Manya Krobo District, Akwadum/Nankese Piped Water System in New Juabeng North/Suhum District, Adasawase Piped Water System in Atiwa East District, Bosuso Piped Water System in Fanteakwa South District, Donkorkrom and Mem Chemfre Piped Water Systems both in Kwahu Afram Plains North District, Maame Krobo Piped Water System in Kwahu Afram Plains South District, Pramkese and Otumi Piped Water Systems in Kwaebibirem District, Dwenase/Apinaman, Kusi, Akim Wenchi and Boadua Piped Water Systems in Denkyemba District.

Closure of Akim Sekyere Water System Office

The Akim Sekyere Water System Office has been closed down and all property of the Agency returned to the Regional Office due to community agitations over the management of the Water System. The National Security and Police personnel were deployed during the agitations to ensure law and order. The Regional Minister, Chiefs and the people of Akim Sekyere have since been engaged by the Regional Office to address the issues.

Baseline Data Collection (Survey)

Baseline data collection for four (4) new Piped Water Systems namely: Maame Krobo, Donkorkrom, Mem Chemfre and Pramkese was conducted during the quarter.

Performance Contract

Despite challenges encountered, some targets for the quarter under review were achieved. Performance Contracts with the existing eight (8) Piped Water Systems were signed.

Repairs and Maintenance of Piped Water Systems

During the quarter, an aqualite plant was installed on the new platform of the Akooko Piped Water System while the aqualite plant at Bosuso was rehabilitated awaiting to be connected to the water supply system. Also, extension of distribution pipelines to newly developing areas at Akooko and Bosuso is ongoing.

Water Quality/Safety Issues

Sampling of Water for Physico-Chemical and Bacteriological analysis for the second half of the year was undertaken. The analysis showed iron and manganese content in the Asiakwa Water System. After compilation of the results, it was recommended that, Manganese Greensand and Iron treatment plant should be installed to remove excess Manganese and Iron from the water. Hazard identification, safety implementation and monitoring exercises were undertaken on all the existing Water Systems except for Akim Sekyere and Bosuso Water Systems.

4.4.2 Stakeholders' Engagement

Engagements with the Regional Minister, Chiefs and the people of Akim Sekyere were held to discuss issues surrounding the community's agitations over tariff rationalization and the need for CWSA to take over management of the Water System.

A group of students from the Colombia University of USA (Engineers without Borders) requested for assistance for the formation of a new WSMT to manage their Limited Mechanized System at Atakrom - Amanfrom community.

4.4.3 Status of Ongoing Projects in Eastern Region

The Region has five (5) projects ongoing. These include: Plan Ghana International, Rotary International/USAID, Kwahu West Municipal Assembly, Direct Aid-Kuwait, and CHOBI Project (KOREA). Details of the ongoing projects are discussed in the sub-sections below:

Plan Ghana International

Under the RWASH Programme, a total of fourteen (14) boreholes were drilled out of which nine (9) were successful for mechanization, three (3) were marginal to be fitted with hand

pumps and two (2) were unsuccessful (no water yields). Under the ICWASH, a total of eight (8) boreholes were drilled with six (6) being successful and two (2) being dry. Also, Pumping Test and Water Quality Analysis have been conducted for all the seventeen (17) successful boreholes drilled.

Rotary International/USAID

The third stage of the WSMT training has been completed for communities in Ayensuano District and Kwaebibirem Municipality except for Dokrochiwa. Contract for the design of mechanization of the borehole at Dokrochiwa has been awarded and work is yet to commence.

Kwahu West Municipal Assembly

Siting has been completed for four (4) boreholes in four (4) communities. An agreement for execution of the works was also prepared and submitted to the Assembly for signing.

Direct Aid-Kuwait

Two (2) boreholes have been drilled and installed with hand pumps at Bisa Kpose and Aworworso Sisi in the Upper Manya Krobo District while four (4) boreholes fitted with hand pumps have been drilled in four (4) communities namely: Tortibo Manya, Tortibo Krobia, Pupuni and Kokono in the Asuogyaman District.

CHOBİ Project (KOREA)

Under the Korean funded CHOBİ project, two (2) boreholes were re-sited and drilled at Ahodwo and Ahwerease. All two (2) boreholes were hydro-fractured and pump tested. Based on the results of the pumping test, the two (2) boreholes are to be mechanized for the beneficiary communities.

The cumulative achievement of all the projects up to third quarter is presented in Table 1.11.

Table 1.11: Status of On-going Projects in Eastern Region (Cumulative up to Third Quarter)

Project Name(s)/ Funding Source/ Duration	Amount Received or Transferred Through the Region to Date	Overall Project Target for the Region	Cumulative Achievement (Since Project Inception to End of Quarter)	2019 3rd Quarter Target	2019 3rd Quarter Achievement	Remarks/ Challenges
RI/USAID H2O Collaboration	-	Drilling and Construction of 13 BHs with mechanization of 2	<ul style="list-style-type: none"> • 11 BHs installed with HPs • 4 No. IRP constructed and 1 BH mechanized to WC facility. • Design contract for limited system awarded 	To mechanize 1 No. BH as a small-town water system	Contract for design of Dokrochiwa mechanization has been awarded	High levels of iron and manganese for which 4 IRPs were constructed at extra cost to the project
PLAN INT. GH(EPU)	-	RWASH Site and drill 12 BHs and mechanize 4 of them	Sited 12 communities and drilled in all 12 communities	To undertake hydro fracture of 3 marginal BHs and conduct pump test	<ul style="list-style-type: none"> • Conduct pump test for all 8 No. successful BHs • Take 8 water sample to the Lab for Water quality analysis 	Difficult Hydro geological terrain leading to 5No. marginal wells
PLAN INT IC WASH	-	Supervision of drilling and construction of 5No. BHs and HP installation of 5No. BHs	All 5No. wells have been drilled	All 5No. Bhs have been drilled	All the 5 No. Bhs were drilled in the quarter.	High number of dry and marginal wells
KWEHU WEST MA	-	Mechanization of 11No. BHs	Reconnaissance survey conducted in 11 communities	To drill 4No. BHs and mechanized 11BHs	<ul style="list-style-type: none"> • Siting for 4No. BHs completed in 4 communities • Contract Agreement prepared and submitted to Assembly 	Not yet
CHOBİ PROJECT (KOREA)	-	Drilling and mechanization of 1	A total of 6 BHs drilled and Hydro fractured to	To drill and mechanize a BH	<ul style="list-style-type: none"> • Re-siting at Ahwerease and Ahodwo completed 	Delay in the procurement of

Project Name(s)/ Funding Source/ Duration	Amount Received or Transferred Through the Region to Date	Overall Project Target for the Region	Cumulative Achievement (Since Project Inception to End of Quarter)	2019 3 rd Quarter Target	2019 3 rd Quarter Achievement	Remarks/ Challenges
		BH each at Ahwerease and Ahodwo	obtain a high yielding BH at Ahwerease and Ahodwo	each at Ahwerease and Ahodwo	<ul style="list-style-type: none"> • Drilling of 2 bore holes completed. • All 2 BHs hydro-fractured • Pump test and water quality analysis conducted 	the treatment plant
KUWAIT ASSISTED DIRECT AID PROJECT	-	Construction of 14 BHs installed with HPs in 4 communities within Asuogyeman	Undertaken reconnaissance survey in 4 communities	To drill 14No.BHs and mechanized with HPs	6 BHs drilled and installed with hand pumps in 6No. communities	Lack of information on progress of work
MAJI PROJECT	-	To install a total of 2 No. solar powered mechanized water vending unit at Amanase	Undertaken reconnaissance survey at Amanase. 1 No. solar powered mechanized water vending unit installed	2 No. solar powered mechanized water vending unit at Amanase	1No. solar powered mechanized water vending unit installed	Discussion on the acquisition of the second site yet to be finalized

4.5 GREATER ACCRA REGION

CWSA Greater Accra Region has three (3) Water Schemes under its management namely: 3-Districts Water Supply Scheme (3-DWSS), Kweiman-Danfa Water Supply Scheme (KDWSS) and Osudoku Water Supply Scheme (OWSS). The Region during the quarter finalized negotiations for acquisition of land for the expansion of the KDWSS.

The chlorinator at KDWSS has been serviced as scheduled and that of 3-DWSS and OWSS are expected to be serviced by the end of fourth quarter. The Region is currently dosing at 2mg/L as required by Ghana Standard Authority (GSA). Water quality analysis was done and results for all the three (3) schemes under CWSA's management were received. The results indicate that, the physico-chemical parameters are all below the recommended threshold values from GSA.

4.5.1 Operations of Water Systems

Updates on Water Systems Managed by the Region

Technical

3-Districts Water Supply Scheme

Materials have been procured to enable prompt response to pipe bursts and scheduled maintenance works. Tender documents for the replacement of 21km transmission line have been finalized and the process for advertising the IFT is on-going.

Kweiman- Danfa Water Supply Scheme

Works are on-going for the expansion of the scheme. First site meeting was held in August, 2019 and major decisions arrived at included: the need for the contractor to improve safety measures at construction site and to assign a Safety Officer; repair all pipe bursts caused during excavation; document all situations causing delays; and the chiefs, elders and Assembly member should facilitate the relocation of structures illegally situated on existing pipelines.

Osudoku Water Supply Scheme

Contract has been signed with Deng Engineering for the supply and installation of three (3) surface pumps to boost water production and distribution. Also, a new transformer has been installed to replace the existing dedicated transformer to the scheme which got burnt during a heavy downpour.

Extension Services

Review of Guidelines for Private Water Connections

Orientation on the approval guidelines for private water connections was done in 3DWSS and KDWSS. The purpose was to enable staff understand the assessment and approval processes in the guidelines as well as appreciate their roles in the private water connections.

Community Relations Activities at Scheme Level

In the quarter under review, the Community Relations Officers (CROs) of all the three (3) Water Supply Schemes assessed forty-two (42) vendors and issued appointment letters to thirty-eighty (38). Only three (3) vendors submitted their acceptance letters.

Implementation of SAP Activities

Communal labour continued in all eight (8) communities as part of the activities in the 2019 Sanitation Action Plan. Demonstrations on different latrine models were conducted in the eight (8) communities to enable community members decide on the most suitable models. Sectional dumping sites were created for these communities and four (4) tippy taps were built in seven (7) schools for hand washing. Sanitation Bye-Laws were formulated by the MMDAs with support from the Water System Staff to regulate hygiene and sanitation behaviors in the communities.

Improving Revenue Generation

The following strategies were adopted to improve revenue generation: calling of customers (private subscribers and vendors) before revenue collection and after bill distribution; attaching flyers to bills before distribution; and engaging high level indebted customers through visits and signing of payment plans.

Baseline Data Collection (Survey)

Baseline data for all the three (3) Water Supply Schemes under the Region's management was gathered during the quarter. The data showed that, the two (2) submersible pumps at KDWSS were in good condition. However, two (2) out of six (6) submersible pumps at 3-DWSS were not functioning optimally, while five (5) surface pumps at OWSS were all faulty. Also, the five (5) high level steel tanks at 3-DWSS have serious leakages whereas the high-level tanks for distribution at KDWSS and OWSS were all in good condition.

Performance Contract

Performance Contracts with staff of the three (3) Water Supply Schemes were signed on the 1st of July 2019.

Repairs and Maintenance of Piped Water Systems

Repairs and maintenance works carried out included: repair of standpipes at 3DWSS and KDWSS, repair of sluice valves at 3DWSS, repair of leakages on transmission and distribution lines in all the three (3) Water Supply Schemes, replacement of 250mm HDPE saddle, valves and household meters at 3DWSS. The Osudoku transformer has also been replaced.

Rehabilitation of Piped Water Systems

To solicit the support of the La Nkwantanang-Madina Municipal Assembly in the ongoing expansion project, the Region informed the Assembly through a letter on the status of activities on the KDWEP. A team of Regional and Water System staff, the consultant and the contractor visited the communities (walk from Ayimensah to Danfa) where the pipelines are laid. Fifty-seven (57) affected individuals were engaged and served with letters to relocate their structures which were on the existing pipeline to allow for laying of new pipelines. Also, copies of Grievance Redress forms have been made available at the Water System level for persons or groups with complaints regarding the construction works ongoing in the community.

Water Quality/Safety Issues

The chlorinator at KDWSS was serviced during the quarter while that of 3DWSS and OWSS are expected to be serviced in the 4th Quarter, 2019. The Region is currently dosing at 2mg/L as required by Ghana Standard Authority. Standardizing and monitoring of residual chlorine are adequately implemented.

In relation to chlorine usage, 3-DWSS used six (6) drums of Calcium Hypochlorite for disinfection based on the daily water production of 1,800m³ while two (2) drums of Calcium Hypochlorite per daily water production (500m³/day) was used at OWSS. The KDWSS used one (1) drum instead of two (2) according to the daily water production of 370m³/day, because of the low pH value of 4.5. A full dose of two (2) drums would have further lowered the pH value. However, the situation is strictly monitored.

Results of water quality analysis of the three (3) schemes have been received and the physico-chemical parameters are all below the recommended threshold values of GSA. However, iron, manganese, fluoride, total suspended solids, nutrients and turbidity have increased slightly as

compared to the base line water quality test performed. This is mainly due to the activities upstream and those by the sand winners and fish farmers near the intake.

The Bacteriological test indicated the presence of E. coli at all the standpipes in all the schemes. However, the treated water leaving the pump house were free from E. coli. The presence of E. coli at standpipes can be attributed to the frequent rains recorded with poor sanitation practices and too many frequent pipe bursts rendering the residual chloride depleted.

4.5.2 Stakeholders' Engagement

Negotiation for acquisition of land for the expansion of the KDWSS with the Nii Kwetia and Nii Adjei Wulu families was finalized. An amount of Seven Thousand Ghana Cedis (GHS 7,000.00) was agreed by both parties as compensation for all the land in Kweiman required for the expansion. The Nii Adjei Wulu family agreed to release their land out of free will and without compensation. Minutes of each of the negotiation meeting were prepared and signed with both parties. The minutes will serve as an interim agreement until the final agreement is signed.

4.5.3 Status of On-Going Projects in Greater Accra Region

Rotary International/USAID WASH Project and UNICEF F4WASH Program 2.0 are the two (2) ongoing projects in the Region. Details of the projects are highlighted in the sub-headings below:

Rotary International/USAID WASH Project

The project involves construction of sixteen (16) boreholes fitted with submersible hand pumps. An additional borehole at Fante Mayera is to be mechanized due to the large population of the area.

Rotary Accra Ridge Global Grant Project

The project involves construction of five (5) boreholes fitted with hand pumps in the Ga South Municipality. The beneficiary communities are Alhaji Akrowa, Akpalokope, Kulefianu, Kojonto and Awudiman.

Water Safety

Four (4) boreholes were sampled after approval from RI/USAID WASH Project Coordinator. The water samples were sent to SGS Laboratory Services Ghana for physico-chemical analysis. The result indicated high turbidity (7.4 NTU), total dissolved solids (1,271mg/l), total iron (0.5mg/l) and total manganese (0.7mg/l) values for Hobor Congo. These values are far above the threshold recommended by Ghana Standards Authority. Aduflo has total iron value of 0.5mg/l while the recommended GSA/WHO value is 0.3mg/l. The manganese value recorded is 0.19mg/l compared to the standards of 0.3mg/l.

Fante Mayera boreholes have less or no presence of Iron and Manganese. (Iron is less than 0.1 and Manganese is less than 0.002). The true color (color observed after filtering the water sample) of these boreholes is high compared to the apparent color (color of raw water). This is an indication of presence of dissolved solids since all suspended solids were filtered. Based on the analytical report, Iron and Manganese removal plants was recommended for these boreholes.

Provision of Extension Services to Eleven (11) Communities

The WSMT training report as well as the Planning Phase report was submitted on the 11th July 2019. WSMT Training 2 & 3 and female leadership training were successfully conducted during the quarter. During the training, the team discovered the following: platforms for all boreholes were poorly constructed; low yield of four (4) boreholes in Obinfo Agumezekope and Bosuafise Zoglo even after hydro-fracture was conducted; difficulty in pumping and incorrect fixing of the piston causing metals to scratch during pumping in Obinfo Agumezekope; faulty hand pump in Terbu Agbikope; foul smell in water in Hobor Congo and delay in the construction of Limited Piped Scheme in Fante Mayera. The contractor was notified of the challenges through a letter and the necessary rehabilitation works have been done.

UNICEF F4WASH 2.0

Sanitation

The project involves construction of eighteen (18) institutional toilets in some selected schools within LaDMA and LeKMA. Specifically, the project is made up of 10No. 6-Seater Pour Flush Squatting Toilets with ancillary facilities for the selected basic schools within the Ledzekuku-Krowor Municipal Assembly and 8No. 10, 6, and 4-Seater Pour Flush Squatting Toilets with ancillary facilities for selected Schools in La Dadekotopon Municipal Assembly.

Works have been completed and the facilities have been handed over to the Assemblies. Contracts have also been signed with two contractors for the renovation of existing toilet facilities in the beneficiary schools.

Water Safety

Water sampling was carried out by Ghana Water Central Lab in 99 schools under the UNICEF F4WASH project in the Greater Accra Region. Some observations made were: three (3) schools had boreholes with handpumps as their source of water, four (4) schools relied on tanker services and the rest of the schools had their sources from Ghana Water Company Ltd (GWCL). All the schools had storage tanks which were connected to the water source before distribution.

Some schools used liquid and powdered soap for cleaning the storage tanks with no strict cleaning schedule, while some of the storage tanks had no covers. It was recommended that, education on water safety should be intensified in the schools and the schools should be encouraged to prepare Water Safety Plans for water storage and cleaning of the storage tanks.

The cumulative achievement of all the projects up to third quarter is presented in Table 1.12.

Table 1.12: Status of On-Going Projects in Greater Accra Region (Cumulative up to Third Quarter)

Project Name(s)/ Funding Source/ Duration	Amount Received or Transferred Through the Region to Date	Overall Project Target for the Region	Cumulative Achievement (Since Project Inception to End of Quarter)	2019 3rd Quarter Target	2019 3rd Quarter Achievement	Remarks/ Challenges
RI - USAID H ₂ O WASH Collaboration Project	45,717.00	Provision of extension services in 11 communities	-	<ul style="list-style-type: none"> • WSMT Training 2 in 1 community • WSMT training 3 in 10 • Female Leadership training for 30 WSMT women 	<ul style="list-style-type: none"> • WSMT training 2&3 carried out in 8 communities • Session on Female leadership taught during WSMT training • WSMT training 3, End of Implementation Phase, Completion reports prepared 	WSMT training and follow up activities yet to be carried out in Fante Mayera due to delays in construction
RI - USAID H ₂ O WASH Collaboration Project	-	<ul style="list-style-type: none"> • Construction of 16 boreholes • Construction of 15 platforms • Installation of 15 handpumps • Construction of 1 Limited Mechanised System (LMS) • Construction of 5 Iron Removal Plants 	<ul style="list-style-type: none"> • 16 No. Boreholes drilled. • 14No. Boreholes fitted with hand pump and working. • 5No. Iron and Manganese removal plants constructed to treat water with quality problems 	<ul style="list-style-type: none"> • Construction of 16no. boreholes • Construction of 15 platforms • Installation of 15 Hand Pumps • Installation of 5 IRPs 	Awarded the contract and supervised the construction of 5No. Iron and Manganese removal plants constructed	LMS yet to be constructed
UNICEF F4WASH Program 2.0	1,622,792.36	Construction of 18 No. Pour Flush Squatting Toilets in some selected schools within LaDMA and LeKMA	<ul style="list-style-type: none"> • Construction of 18 No. Pour Flush Squatting Toilets • Renovation of 16 existing toilets facilities in beneficiary schools. 	-	Signed the contract for the renovation of 16 existing toilet facilities within LaDMA and LeKMA	Additional works awarded

4.6 NORTHERN, NORTH EAST AND SAVANNA REGIONS

The Region continued monitoring the implementation of the reform activities and the on-going projects.

4.6.1 Operations of Water Systems

Updates on Piped Water Systems Managed by the Region

The Region is currently managing seven (7) Piped Water Systems which include; the Bole Piped Water System in Bole District, Bimbilla Piped Water System in Nanumba North Municipality, Wulensi Piped Water System in Nanumba South District, Tatale Piped Water System in Tatale-Sanguli District, Zabzugu Piped Water System in Zabzugu District, Daboya Piped Water System in North Gonja District and Fufulso Piped Water System in Central Gonja District.

Performance Contract

The Performance Contracts between the Regional Office and the Water Systems were signed during the quarter.

Repairs and Maintenance of Piped Water Systems

Repairs and maintenance works were carried out in Bole, Bimbilla, Wulensi and Zabzugu Piped Water Systems which ranged from fixing of burst distribution mains, faulty tap heads, fixing of standpipe leakages and changing locks of some valve chambers.

4.6.2 Stakeholders' Engagement

The Region visited Bole and Daboya District Assemblies as well as chiefs, opinion leaders and some community members to solicit their support for the reform agenda. The team also discussed issues affecting water services delivery and operations of the Water System Management Staff.

4.6.3 Status of Ongoing Projects in Northern Region

The AF- SRWSP and the UNICEF Accelerated Grant project are currently ongoing in the Region. The key deliverables of the AF-SRWSP are: construction of one (1) Small Town Piped System; rehabilitation of six (6) Small Towns Water Systems; construction of one hundred and thirty-one (131) Digni-loo latrines for teachers; construction of 3,350 household latrines and the achievement of one hundred (100) ODF communities.

Under the UNICEF Accelerated Grant project, the water subproject consists of drilling of ninety-four (94) boreholes fitted with hand-pumps, forty-six (46) pipe extensions to schools and health centers, and consulting services for the supervision of the works. The Sanitation subproject consists of three hundred and forty (340) KVIP latrines for schools and health centers. The progress of activities is indicated in Table 1.13.

Table 1.13: Status of On-going Projects in Northern Region (Cumulative up to Third Quarter)

Project Name(s)/ Funding Source/ Duration	Amount Received or Transferred Through the Region to Date	Overall Project Target for the Region	Cumulative Achievement (Since Project Inception to End of Quarter)	2019 3 rd Quarter Target	2019 3 rd Quarter Achievement	Remarks/Challenges
AF-SRWSP						
• Water	1,221,895.25	7 ST Systems	-	7	-	Works are on-going at various sites in 7 project communities
• Sanitation	105,000.00	3,350 HH latrines & 100 ODF Comm	2,328	No target set	488	
• Environmental Safeguard						
UNICEF						
• KVIP	4,575,086.91	340	281	55	4	BH drilling suspended due to inaccessible roads which is as a result of rains
• Boreholes		94	54	20	0	
• Pipe Extensions		46	36	24	10	
• Rehab of Water System in Kpatinge & Pushega		2	-	-	-	

4.7 UPPER EAST REGION

The Region carried out implementation of activities under the UNICEF for WASH project, AF-SRWSP, Enhanced WASH Project in schools and the EPA Project. The Region again carried out baseline data collection, repairs and maintenance, rehabilitation of Water Systems and water quality monitoring. Highlights of activities undertaken in the quarter are presented in the sub-sections below:

4.7.1 Operations of Water Systems

Updates on Water Systems Managed by the Region

CWSA Upper East Region has seven (7) Piped Water Systems under its management. These include: Sandema Piped Water System in Builsa North District, Chiana and Paga Piped Water Systems in Kassena-Nankana West and East Districts, Bongo Piped Water System in Bongo District, Pusiga Piped Water System in Pusiga District, Zebila and Binaba-Kusanaba Piped Water Systems in Bawku West District. The Region is unofficially managing six (6) other Piped Water Systems and requests has been sent to Head Office to deploy staff to officially manage these Water Systems. They include: Wiaga, Fumbisi and Uwasi Piped Water Systems in Bulisa South District, Zorkor Piped Water System in the Bongo District, Sumbrungu Piped Water System in Bolgatanga Municipal and Tongo Piped Water System in Talensi District.

Baseline Data Collection (Survey)

Baseline data on all Piped Water Systems under the Region's management have been updated and submitted to Head Office. GPS coordinates for pipeline extensions have also been collated and submitted. The process to digitize Water System layouts on google maps is currently ongoing.

Performance Contract

Performance Contracts between the Region and Water System Management Staff were signed in July 2019.

Repairs and Maintenance of Water Systems

Repairs and maintenance carried out during the quarter include re-design of pump control panel for Zorkor Piped Water System, repair of faulty pump control panels at Paga, Sandema, Chiana, Wiaga and Fumbisi Piped Water Systems and replacement of submersible pump for the newly mechanized borehole at Sandema Piped Water System.

Rehabilitation of Piped Water Systems

Contracts have been signed for the rehabilitation of boreholes currently serving as water sources for the seven (7) Piped Water Systems under the Region's management. Contracts have also been signed for siting and drilling of additional borehole for each of the three (3) Piped Water Systems which are at Paga, Bongo and Chiana. Apart from siting, no other works have been completed due to cash flow issues.

Water Quality/Safety Issues

Disinfections of the seven (7) Piped Water Systems was carried out during the quarter. Water quality test conducted at Bongo Piped Water System confirmed the presence of fluoride in the water.

4.7.2 Stakeholders' Engagement

The Region engaged the Regional Commanders of the Ghana Police Service, Fire Service and Bongo District Assembly on payment of water bills. This has yielded positive results as all parties have begun payments. The Region engaged Fumbisi and Talensi District Assemblies on taking over the management of the Fumbisi, Tongo and Duusi Water Systems. The Region participated in the site meetings of Ghana Water Company Limited project in Tono which will supply bulk water to Paga and Bongo Piped Water Systems.

4.7.3 Status of Ongoing Projects in Upper East Region

The region is currently undertaking the implementation of five (5) projects which include: UNICEF Football for WASH Project Phase 1 (F4W1); UNICEF Football for WASH Project Phase 2 (F4W2); UNICEF Enhanced WASH Project in schools; IDA funded AF-SRWSP and the EPA Project. Details of the projects are presented in the sections below:

UNICEF Football for WASH Project

Under the F4W1 Project, thirteen (13) new KVIPs and rehabilitation of six (6) existing KVIPs were completed. Under F4W2 project which is an addition to the F4W1, the project involves construction of twenty-eight (28) new KVIP latrines, rehabilitation of two (2) existing KVIP latrines, drilling and construction of nine (9) new boreholes fitted with hand-pumps and rehabilitation of one (1) existing hand pump borehole. Field work began during the quarter and estimated works completed is about 50%.

ENHANCED WASH Project

The project which involved construction of fourteen (14) new KVIPs and rehabilitation of seventeen (17) existing KVIPs have been completed. Additional works which involved rehabilitation of twenty-six (26) existing KVIP latrines are currently in progress and estimated works completed as at the end of the quarter is about 95%.

AF-SRWSP

The AF-SRWSP comprise Water and Sanitation Components. Under the Water Component, procurement contract for drilling was completed within the quarter and seven (7) boreholes were drilled. Out of the seven (7), three (3) were successful, two (2) marginal and two (2) dry or unsuccessful. Under the Sanitation Component, ODFs were achieved in twenty-five (25) communities, one thousand and fifteen (1,015) household latrines and eighty-three (83) school teachers' latrines were constructed within the quarter.

EPA Project

The Environmental Protection Agency in the Upper East Region has successfully drilled two (2) boreholes in Yameriga and Namolgo and civil works are currently ongoing. Civil works with regards to construction of reinforced concrete stand, construction of transmission line, construction of public fetching point and installation of poly tanks have been completed. The out-standing works are electrical installations and installation of submersible pumps to enable the commencement of pumping.

The cumulative achievement of all the projects up to third quarter is presented in Table 1.14.

Table 1.14: Status of On-going Projects in Upper East Region (Cumulative up to Third Quarter)

Project Name(s)/ Funding Source/ Duration	Amount received or transferred through the Region to Date (GHS)	Overall Project Target for the Region	Cumulative Achievement (Since Project Inception to End of Quarter)	2019 3 rd Quarter Target	2019 3 rd Quarter Achievement	Remarks/ Challenges
Football for WASH/UNICEF/3 MONTHS	1,901,080.62	<ul style="list-style-type: none"> • 37No. new KVIP latrines • Rehabilitation of 23No. existing KVIP latrines • Drilling and construction of 18No. boreholes fitted with handpumps. 	<ul style="list-style-type: none"> • 37No. new KVIP latrines completed and handed over. • 23No. existing KVIP latrines rehabilitated • 15No.successful boreholes fitted with hand pumps drilled. 	<ul style="list-style-type: none"> • 13No. new KVIP latrines. • Rehabilitation of 6No. existing KVIP latrines. 	<ul style="list-style-type: none"> • 13No. new KVIP latrines completed • 6No. existing KVIPs rehabilitated and awaiting handing over. 	-
Football for WASH PHASE 2/UNICEF/3 MONTHS	1,018,930.50	<ul style="list-style-type: none"> • 28No. new KVIP latrines, • Rehabilitation of 2No. existing KVIP latrines • Drilling and construction of 9No. boreholes fitted with handpumps • Rehabilitation of 1No. existing borehole. 	Borehole drilling; 7 attempts have been made with 6 being Successful and 1 being dry	<ul style="list-style-type: none"> • 28No. new KVIPs, • Rehabs of 2No existing KVIPs. • Drilling of 9 new boreholes Rehabs of 1No. borehole. 	Borehole drilling; 7 attempts have been made with 6 being Successful and 1 being dry	Construction of KVIPs is on-going and about 50% is completed
ENHANCED WASH IN SCHOOLS/UNICEF/3 MONTHS	792,772.89	<ul style="list-style-type: none"> • Construction of 14No. new KVIP latrines • Rehabilitation of 43No. existing KVIP latrines 	<ul style="list-style-type: none"> • 14No. new KVIPs completed and handed over • 43No existing KVIPs rehabilitated. 	Rehabilitation of 26No existing KVIPs	26No. existing KVIP latrines near completion.	Works are about 95% complete
AF-SRWSP/IDA-WORLD BANK/6 MONTHS (WATER COMPONENT)	-	<ul style="list-style-type: none"> • Feasibility study Report • Designs for 7No. Pipe Systems 	All activities completed except exploratory drilling	Drilling of 25 boreholes	<ul style="list-style-type: none"> • Completion of procurement process • Drilling of 3 successful BHs, 2 marginals and 2 dry 	Intermittent suspension of work due to contractor's inability to access funds/contract has expired
AF-SRWSP/IDA-WORLD BANK/9 MONTHS (SANITATION COMPONENT)	1,029,761.30	<ul style="list-style-type: none"> • Enter 120 communities • Achieve 100 ODF • Construction of 3350 HHLs • Construction of 89 Teachers' latrines 	<ul style="list-style-type: none"> • 70 ODFs achieved • 3,903 HHL constructed • 89No. School Teachers Latrines constructed 	<ul style="list-style-type: none"> • Achieve 100 ODFs • Construct 462 HHL • Construct 83No. School Teachers Latrines 	<ul style="list-style-type: none"> • 25 ODFs achieved • 1015 HHL constructed • 83No. School Teachers Latrines constructed 	-
EPA PROJECT	51,499.36	Construction of 2No. LMS	<ul style="list-style-type: none"> • Drilling of 2 boreholes completed • Reinforced concrete stand and transmission main constructed • Poly tank installed 	To complete the entire project	<ul style="list-style-type: none"> • Completion of 2 boreholes, • Completion of civil works. 	Project could not be completed on schedule due to delay in release of funds by EPA, the client

4.8 UPPER WEST REGION

The Upper West Region continued with the supervision of fourteen (14) Piped Water Systems under its management. Further engagements with Nadowli-Kaleo and Wa East Districts were carried out to bring the Water Systems in these Districts under CWSA's management. Monitoring of WASH facilities in schools and communities under the UNICEF-Assisted WASH Project was done. The Region also monitored works on rehabilitation and expansion, repairs and maintenance, borehole drilling for source establishment and point sources.

4.8.1 Operations of Water Systems

Updates on Piped Water Systems Managed by the Region

The Region has fourteen (14) Piped Water Systems under its management. These include: Lawra Piped Water System in Lawra District, Kpongu & Busa Piped Water Systems in Wa Municipal, Jirapa Piped Water System in Jirapa District, Finsi, Manwe & Goripie Piped Water Systems in Wa East Districts, Nandom Piped Water System in Nandom District, Daffiama Piped Water System in Daffiama-Bussie-Issa, Tumu Piped Water System in Sissala East Municipal, Gwollu Piped Water System in Sissala West District, Wechiau Piped Water System in Wa West District, Kaleo & Nadowli Piped Water System in Nadowli-Kaleo District.

Rehabilitation of Piped Water Systems

Rehabilitation of pump houses is ongoing in Gwollu Piped Water System which is estimated to be 95% complete. One (1) and two (2) pump houses under construction in Gwollu and Tumu are 75% and 98% complete respectively. A total of seventeen (17) submersible pumps have been installed on boreholes across five (5) Piped Water Systems; seven (7) in Tumu, three (3) in Lawra, three (3) in Jirapa, two (2) in Gwollu and two (2) in Nandom.

Messrs. Ako Engineering Ltd delivered materials for solar pump installation on five (5) Piped Water Systems in Tumu, Gwollu, Nandom, Lawra and Jirapa. Installation of the solar pumps are yet to be carried out.

Water Quality/Safety Issues

The budget for the Region's 2019 Water Safety Plan has been submitted to Head Office and awaiting funds for implementation of activities. The Region procured chlorine for four (4) Piped Water Systems and water safety gears for all the systems under its management. Disinfection and flushing of the pipe lines have been carried in Busa, Daffiama, Manwe and

Goripie, Kpongu and Daffiama Piped Water Systems. Water quality test were also carried out in Busa, Daffiama, Manwe and Goripie Piped Water Systems.

4.8.2 Status Ongoing Projects in Upper West Region

Ongoing projects in the Upper West Region include: GoG 20,000 Borehole Project, Additional Financing -Sustainable Rural Water and Sanitation Project (AF-SRWSP) and UNICEF-Assisted WASH Project. Details of projects are discussed in the sub-sections and in Table 1.16:

Additional Financing- Sustainable Rural Water and Sanitation Project (AF-SRWSP)

Civil works are ongoing for the expansion and rehabilitation of two (2) Piped Water Systems at Lambussie and Hamile-Happa. Construction works at both sites were about 80% completed as at the end of September 2019. The initial completion period was 29th July 2019 but could not be met and extension by two months also elapsed on the 29th September 2019. Works are still in progress and discussion with the consultant and the beneficiary District over another extension has been finalized.

Drilling of thirty (30) boreholes as sources for ten (10) Piped Water Systems in five (5) Districts is ongoing and a total of nineteen (19) successful boreholes have been drilled out of twenty-eight (28) attempted.

Contracts for the drilling of two hundred and fifty (250) boreholes to be fitted with hand pumps have also been awarded in ten (10) lots to six (6) different contractors in five (5) Districts. A total of one hundred and ninety (190) successful boreholes have been drilled across the five (5) Districts. Contracts and drilling details are presented in Table 1.15 below:

Table 1.15: Details of Contracts and Drilling During Third Quarter, 2019

District	Contractor	No. Drilled	No. Successful	No. Dry	No. Pump Tested	No. Sample Analysed
Nandom	Namoo & Sons	63	51	12	51	51
Lawra	Joissam Gh	54	42	10	40	40
Jirapa	RIF-CONNAC	58	34	22	27	27
DBI	Rahmex	40	26	14	14	14
Sissala West	Deep Spring	22	19	3	8	8
	Maduson	24	18	6	18	18
TOTAL		261	190	67	158	158

Table 1.16: Status of Ongoing Projects in the Upper West Region (Cumulative up to Third Quarter)

Project Name(s)/ Funding Source/ Duration	Amount Received or Transferred Through the Region to Date GH¢	Overall Project Target	Cumulative Achievement (Since Project inception)	Reporting Quarter Target	Reporting Quarter Achievement	Remarks/ Challenges
GoG 20,000 Borehole Project	208,000.00	122 no. boreholes to be drilled and installed with hand pumps	116no. boreholes successfully drilled, 86 pads constructed with 86 hand pumps installed	-	-	Pads construction not awarded, and Hands pumps yet to be delivered
Additional Financing- Sustainable Rural Water and Sanitation Project (AF-SRWSP) (IDA)	7885,877.72	Rehabilitation and expansion of Lambussie and Hamile-Happa Small Town Water Systems	The two Systems are 80% completed	Construction at 80% complete	The two Systems are 80% completed	Works are yet to be completed
		Source establishment for ten (10) Small Town Water System	19No. Boreholes successfully drilled out of 28 attempts.	Drilling of 18 successful boreholes	7 successful boreholes drilled	-
		Construction of 250 boreholes in 5 districts	190 boreholes successfully drilled	60 boreholes to be drilled	98 boreholes successfully drilled	Late approval of procurement of boreholes
		Hygiene and sanitation promotion in 120 communities	<ul style="list-style-type: none"> Promotion for CLTS activities still on-going in all the 11 MMDAs Digni-loos construction and installation also on-going in all the 11 MMDAs 81 ODFs have been achieved as at September 20192 2,537 HHLs completed and in use 295 household digni-loos have been installed and 47 completed and in used 163 household digni-loos are under construction 38 No. teacher's latrine completed (digni-loos) 12 No. teacher's latrine under construction 	Achievement of 81 ODF	A total of 81 ODF communities have been achieved so far	Verification to be continued in the fourth quarter
UNICEF-Assisted WASH Project	7,194,601.46	Construction of 147No. Institutional Latrines in Schools in Disaster Prone communities of the Upper West Region	141 KVIP latrines completed and handed over.	6 KVIP latrines to be completed and handed over.	10 KVIP latrines completed and handed over.	6 latrines partially completed

4.9 VOLTA AND OTI REGIONS

CWSA Volta Region has twelve (12) Piped Water Systems under its management. The Region continued with the rehabilitations, repairs and maintenance works on the CWSA managed piped water systems. Monitoring and supervision of activities under the GoG-UNICEF WASH Project, Water Supply Improvement Project (WSIP), and the STRABAG Project were carried out during the quarter.

4.9.1 Operations of Water Systems

Updates on Piped Water Systems Managed by the Region

The Piped Water Systems under the Region's management are in three (3) categories. The first category is Water Systems currently producing water and generating revenue. They include: Akatsi Piped Water System in Akatsi South District, Adidome Piped Water System in Central Tongu District, Kwamekrom Piped Water System in Biakoye District, Ziope/Akpokope/Batume Junction Piped Water System in Agotime Ziope District, Damanko-Kpassa Piped Water System in Nkwanta North District, Banda Piped Water System in Krachi Nchumuru District, Dambai Piped Water System in Krachi East District and Kete Krachi Piped Water System in Krachi West District.

The second category are new Piped Water Systems under construction, under the Ghana-Spain Debt Swap for Development Project. These are Anyirawase Piped Water System in Ho West District, Agotime Afegame Piped Water System in Agotime-Ziope District, Adaklu Mountain area Piped Water System in Adaklu, Dzolo Gborgame District & Amedzofe Piped Water Systems in Ho West District and Shia Piped Water System in Ho Municipal.

Category three consists of old Water Systems that broke down under community management and are currently undergoing rehabilitation. These are Vakpo, Taviefe and Nkwanta Piped Water Systems.

Baseline Data Collection (Survey)

Baseline data collection for Kete-Krachi Piped Water System is currently ongoing.

Repairs and Maintenance of Piped Water Systems

Major repair and maintenance activities carried out in the quarter include replacement of fittings on public standpipes, replacement of sections of transmission and distribution lines, replacement of couplings, replacement of motor on the submersible pump, installation of new control panel for Dambai Water System, and repair works on vertical multi-stage pump for Adidome Water System.

Rehabilitation of Piped Water Systems

The Region with support from Head Office and UNICEF is undertaking rehabilitation exercise on three (3) Piped Water Systems under CWSA's management. The Water Systems are Taviefe Piped Water System in Ho Municipality, Vakpo Piped Water System in North Dayi District and Kwamekrom Piped Water System in Biakoye District. The works include construction of new standpipes, rehabilitation of existing standpipes, replacement of section of transmission and distribution lines, installation of sanikits, replacement of valves, bulk meters and extension of distribution lines to sections of the communities. The contractor, Caksunity Services Limited, was introduced to the various sites on 9th August 2019 and works have commenced in all the three (3) sites and are at various stages of completion.

Installation of submersible pumps were carried out during the quarter. Grid Pumps were installed on Akatsi, Vakpo and Taviefe Piped Water Systems while installation of two (2) Photovoltaic pumps for Vakpo and Akatsi and two (2) Grid pumps on the Nkwanta Piped Water System is ongoing.

Water Quality/Safety Issues

Water samples were taken from the Kwamekrom Piped Water System, tested and analyzed at the Regional Laboratory of the Ghana Water Company Limited, Ho. Generally, the physico-chemical parameters of all water samples were within the threshold recommended by Ghana Standards Authority (GSA) except the water sample at the pump house. A sample taken at the pump house showed a slight increase in Iron (0.56mg/l) and Manganese (0.44mg/l) above the GSA

recommended threshold values of 0.30mg/l and 0.40mg/l respectively. Also, management procedures under the Water Safety Plan are being implemented in all the Water Systems.

4.9.2 Status of Ongoing Projects in Volta Region

Ongoing projects in the Region include Ghana-Spain Debt Swap for Development Programme (DSDP), Rotary International/USAID (RI/USAID) Water Collaboration Project, GoG/UNICEF WASH Project (Better Life for Girls). However, no activities under Rotary International/USAID (RI/USAID) Water Collaboration Project was implemented during the quarter under review. Details of projects are discussed in the sub-headings below:

Ghana-Spain Debt Swap for Development Programme (DSDP)

The project consists of seven (7) work lots in thirty-five (35) communities. The source for five (5) of the lots is underground water and two (2) lots have surface water as their source. During the quarter, Lot seven (7) which comprises Amedzofe and Shia were tested by the contractor before handing over. Lot two (2) which comprises of Ziope, Akpokope & Batume Junction Piped Water Systems were completed and have been in operation awaiting the installation of two (2) packaged treatment plants. The defects liability for Lot two (2) ended during the quarter under review.

GoG/UNICEF WASH Project (Better Life for Girls)

The project was launched in the Regions (Oti/Volta) during the quarter. The project covers twenty-nine (29) schools in the Krachi East Municipal (Oti Region) and fourteen (14) schools in the North Dayi District (Volta Region). Funding for the project is from KOICA through UNICEF. The bills of quantities and the bidding documents were completed and with approval from the CWSA Head Office, adverts were launched in the quarter under review.

Also, the rehabilitation works for Kwamekrom, Taviefe and Vakpo Piped Water Systems under UNICEF support began during the quarter. The contractor (M/S CAKSUNITY Services Ltd.) has moved to site and completed a number of new standpipes in Kwamekrom as well as the extension of main distribution pipelines to the CMB area. The firm is currently in Vakpo and Taviefe where work is progressing steadily.

The cumulative achievement of all the projects up to third quarter is presented in Table 1.17.

Table 1.17: Status of On-going Projects in Volta Region (Cumulative up to Third Quarter)

Project Name(s)/ Funding Source/ Duration	Amount Received or Transferred Through the Region to Date	Overall Project Target for the Region	Cumulative Achievement (Since Project Inception to End of Quarter)	2019 3 rd Quarter Target	2019 3 rd Quarter Achievement	Remarks/ Challenges
UNICEF/GoG Water Safety Plan Monitoring	-	Monitoring of Water Safety Plan in 2 pilot communities	-	To pay 2 monitoring/sanitary inspection visit to the 2 pilot communities	Two monitoring/sanitation inspection visit has been paid to the community	-
Ghana-Spain Debt Swap for Development Programme (DSDP)	e-payment direct to the contractors (GHS6,250,197.22)	18 Water Systems to be built and will serve approx. 69,000 people in 35 communities. 12 STWS & 6 LMS	Water Supply systems for three (3) communities completed	-	Construction in progress	<ul style="list-style-type: none"> • Inclement weather • Poor management by contractors • Undue delay in payments (IPC)
ROTARY/USAID H ₂ O Collaboration WASH Project	e-payment direct to the contractors	5 Boreholes fitted with hand pumps	<ul style="list-style-type: none"> • All boreholes completed • 2 boreholes to be fitted with MWACAFE plants 	-	-	-
GOG/UNICEF WASH Project (Better Life for Girls)	-	Construction of Urinals & Changing rooms in 14 schools in North Dayi district & 29 schools in Krachi East Municipality.	<ul style="list-style-type: none"> • Bids received and opened • Evaluation reports being prepared 	-	-	-
GOG/UNICEF WASH Project	-	Rehabilitation of 15 KVIP latrines in Kpando & Keta Municipals and North Dayi District	Rehabilitation works completed and handed over	-	-	-

4.10 WESTERN AND WESTERN NORTH REGIONS

The Region continued the facilitation of safe water delivery and improved sanitation services during the quarter. The Region currently has fourteen (14) Piped Water Systems under six (6) management units. Though there was no major rehabilitation works on the Piped Water Systems, repairs and maintenance works were carried out. Activities carried out are detailed in the sub-sections.

4.10.1 Operations of Water Systems

Update on Piped Water Systems Managed by the Region

There are currently fourteen (14) Piped Water Systems under six (6) management units in the Region. These include; Adjakaa Manso Piped Water System in Wassa Amenfi Central District, Asankragwa Piped Water System in Wassa Amenfi West District, Yaakase Piped Water System in Aowin District, Beppoh and Insu Siding Piped Water Systems both in Prestea Huni-Valley District, Jappah Piped Water System in Wassa Amenfi East District, Nsuaem Piped Water System in Tarkwa Nsuaem Municipal, Agona Nkwanta Piped Water System in Ahanta West District, Sefwi Wiawso and Amafie Piped Water Systems both in Sefwi Wiawso District, Nsawora Piped Water System in Sefwi Akontombra District, Supomu Dunkwa Piped Water System in Shama District, and Atobiase and Ekutuase Piped Water Systems both in Wassa East District.

Baseline Data Collection (Survey)

Baseline data was gathered and based on that, proposals were prepared for financial and technical audit of some viable Piped Water Systems for possible management by CWSA Western Region. The potential Piped Water Systems considered include; Bibiani, Half Assini, Enchi, Ainyinase, Dadieso and Wassa Akropong.

Repair and Maintenance of Piped Water Systems

Repairs and maintenance works carried out during the quarter included cleaning and redevelopment of boreholes at Manso Amenfi, Atobiase, Mpohor and Agona Nkwanta Water Systems, and fixing of a major burst on a 200mm diameter distribution main of the Asankrangwa Water System. Outstanding repair works (damaged distribution and transmission mains) at Adjakaa Manso and Asankrangwa have been arranged after pipes and fittings for the repair works were received from suppliers (Contractors who caused the damaged).

Water Quality Issues

The Water Safety Plan were completed and sent to Head Office and all the Water System offices. The training of Water System staff on the Water Safety Plan implementation was completed and implementation is currently ongoing in all the Piped Water Systems in the Region. One (1) chlorine dispenser has been installed on Asankrangwa Piped Water System for water disinfection while a dumping site located close to the source of the Water System at Asankrangwa is being relocated.

4.10.2 Stakeholders' Engagement

CWSA-Western Region continued its engagements with District Assemblies and communities on the reform agenda. During the quarter, some Districts and communities called upon the Region to take over management of their Water Systems. The Water Systems have been assessed to determine the level of indebtedness and disrepair in order to inform the Region's decision on taking over management.

4.10.3 Ongoing Projects in Western Region

The two ongoing projects in the Region are the Additional Financing- Sustainable Rural Water & Sanitation Project (AF-SRWSP) and USAID/Rotary International WASH Project. Detail description of the status of all ongoing WASH projects in the Region are presented in Table 1.18.

Table 1.18: Status of On-going Projects in Western Region (Cumulative up to Third Quarter)

Project Name(s)/ Funding Source/ Duration	Amount Received or Transferred Through the Region to Date (GHC)	Overall Project Target for the Region	Cumulative Achievement (Since Project Inception to End of Quarter)	2019 3rd Quarter Target	2019 3rd Quarter Achievement	Remarks/ Challenges
AF-SRWSP Small Towns	1,100,000.00	2 Small Towns	2 Small Towns	2 Small Towns	Commencement of Works	90% complete
AF-SRWSP ODF	323,211.25	85	-	24	24	Cumulative target of 50 achieved
AF-SRWSP HHL (VIP)		3350 HHL	-	850 HHL	1002	Cumulative of 2800 achieved
Rotary	50,350.00	7 Bhs	7 Bhs	Project Closed	Project Completion Report	Submitted

5.0 CHALLENGES

Challenges confronted by CWSA during the quarter are categorised under the following sub-headings:

a) Participation in Management of Piped Water Systems

- i. Over-aged Piped Water Systems resulting in frequent pipe burst which affects efficiency of production, distribution and transmission;
- ii. Delay in rehabilitation of non-functioning Piped Water Systems;
- iii. Delay in supply of service meters and installation of submersible pumps;
- iv. Delay in procurement of Smart Taps for installation in Water System communities under AF-SRWSP;
- v. High content of Iron identified in ground water of some Piped Water Systems;
- vi. High fluoride and bacteriological contamination in some Piped Water Systems;
- vii. Delay in redeployment of Water System staff by Head Office to fill vacant positions;
- viii. Inadequate means of transport for effective monitoring;
- ix. Reluctance of community members to hand over Piped Water Systems to CWSA to managed;
- x. Inadequate training/orientation for Water System staff.

b) Technical

- i. Inability to calculate non-revenue water due to malfunctioning of newly installed bulk meters;
- ii. Persistent water quality challenges in some Piped Water Systems;
- iii. Lack of field test kits for water quality monitoring.

c) Financial/Resources

- i. Over-aged vehicles resulting in frequent breakdown and high maintenance costs;
- ii. Huge arrears of electricity bills inherited from previous community management staff;
- iii. High customer indebtedness on all the schemes with low recovery of debts.

d) Operational

- i. Destruction of pipelines during road construction in some of the Water Systems;

- ii. Most CWSA Regional and Water System offices are in bad condition which is risky for staff;
- iii. Difficulty in accessing some project communities due to bad roads;
- iv. Presence of competing sources of water in some communities.

e) Power

- i. Erratic power supply from ECG

6.0 WAY FORWARD

The following recommendations are made with regards to the challenges listed above:

- i. Timely supply of service meters;
- ii. Installation of Smart Taps on some community Piped Water System;
- iii. Installation of packaged treatment plants on Piped Water System with water quality challenges;
- iv. Procurement of fluoride removal plant and treatment equipment to make water safe;
- v. Expedite action on redeployment of Water System staff to fill vacant positions;
- vi. Continuous re-orientation of staff at all levels;
- vii. Safeguarding Control Panels against power fluctuations and skills enhancement for the Technicians on Control Panel operations.

7.0 CONCLUSION

Despite the challenges, CWSA is committed to fulfilling its mandate of delivering safe water, sanitation and hygiene services to rural areas and small towns in Ghana. In the quarter under review, CWSA made significant strides towards increasing the number and improving the performance of Piped Water Systems under its management.

In the next quarter and beyond, stakeholders' engagements will be intensified to solicit for buy-in and support for the reform programme and maintain strong partnership with all rural WASH sector players notably GoG, the MSWR, allied MDAs, DPs, CSOs, the private sector and MMDAs to ensure timely completion of all ongoing projects. It is expected that, a rapid response to the challenges highlighted in this report will contribute significantly to the achievement of the year's targets and the reform programme in general.