National Development Planning Commission

Good Practice for WASH in Ghana

Meeting the Targets for Water, Sanitation and Hygiene by 2030



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Cover picture: Janet Atebiya, Water Quality Manager for Ghana Water Company, tests a pump at Kenyasi No. 1 in Asutifi North

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National Development Planning Commission in conjunction with IRC Ghana



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Preface

Highlighting good practice guides the way towards achieving Ghana's Sustainable Development Goal for water, sanitation and hygiene (WASH)

This booklet highlights experiences in three districts of Ghana reflecting efforts to achieve the Sustainable Development Goal (SDG) for water, sanitation and hygiene (WASH). They represent examples from real-life about making progress towards the targets set by the Government. These 'best practice' stories have been collected by the National Development Planning Commission (NDPC), which advises the President of Ghana on development strategies.



Dr Kodjo Mensah-Abrampa, Director General of the NDPC

The SDG goal for WASH (SDG 6) is to ensure the availability and sustainable management of water and sanitation for all, by the year 2030. Overall in 2017, 19%

of the population in Ghana missed out on access to at least a basic level of water services and only 36% were using safely managed water accessible on the premises. At the same time, almost one in five (18%) of the population was still practising open defecation.

The NDPC selected three districts to highlight successes and challenges — Bongo, Wassa East and Asutifi North — broadly illustrating good practice in the north and middle ecological zones. All three have made strong efforts to improve access to water and sanitation and have embraced innovative approaches.

Dr Kodjo Mensah-Abrampa, Director General of the NDPC, sees great value in the ability of districts to learn from one other. "Having good examples is fantastic. If we are able to emulate them and use that to plan in the country, then we can talk about success." He recognises the provision of safe water as a highly visible and important issue that affects everyone's daily lives, and the task to achieve good sanitation as a still greater challenge for Ghana.

Drawing lessons from WASH success stories in Ghana

Ghana's development aspirations are aligned with the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs). Goal 6, which ensures the availability and sustainable management of water and sanitation for all, is a challenge since, in 2017, 19% of the population did not yet have access to at least a basic level of water services and only 36% were using safely managed water accessible on the premises. Almost one in five (18%) of the population was still practising open defecation. Service sustainability is further challenged by the large number of non-functional water systems.

Between February 17 and March 5, 2020, a small team from the Ghana National Development Planning Commission and IRC Ghana visited three districts, Wassa East in Western Region, Bongo District in Upper East Region and Asutifi North in Ahafo Region. The aim was to collect and document case studies within the WASH sector, share best practices and lessons to contribute further to evidence-based innovative development approaches towards meeting the Sustainable Development Goal 6 in Ghana.



The National Development Planning Commission team that led the collection of good practice in WASH in Ghana, (left to right), Dr Felix Addo-Yobo, Director of the Development Policy Division, Patience Ampomah, Planning Analyst, Michael Kissi Boateng, Planning Analyst and the NDPC Director General, Dr Kodjo Mensah-Abrampa.



Daniel Canyase, District Coordinating Director, Bongo District



The Hon. Anthony Mensah, District Chief Executive, Asutifi North District



The Hon. Wilson Arthur, District Chief Executive, Wassa East District

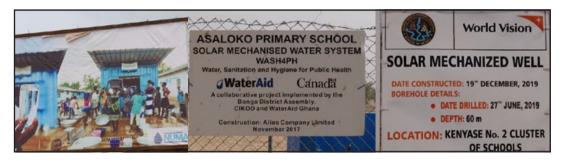
The team met leaders of WASH services, representatives of NGOs and development partners, and conducted community visits and interviews at district level, as well as some interviews at national level. The visit concluded as concern over Coronavirus was rising but before the first cases of COVID-19 in Ghana. Future progress may be affected, depending on the course of the virus in Ghana. However, it should be noted that effective WASH services are a source of resilience for communities. COVID-19 highlights the importance of WASH – especially hygiene –as essential protection against the virus.

This publication does not suggest that these districts have resolved all their WASH problems, or that innovative approaches are not being adopted in other districts. All three of these districts agree they have a journey ahead of them. However, one asset they all demonstrated was openness and willingness to share experiences—both good and bad. They have all identified WASH as a priority issue and are addressing it in an energetic and realistic manner. It is also clear that there are some common factors that can be drawn from these experiences about what is driving success and what still needs to be resolved.

Common factors that drive success

Political leadership from the District Assembly

Making WASH a priority issue became a political imperative. Wassa East decided to bring in an entrepreneurial partner as a change of strategic direction. Bongo District appealed for outside support to deal with fluoride in groundwater. For Asutifi North, adopting the ANAM initiative was a decision to become the testing ground for a new approach.



Signs of the times: NUMA water in Wassa East, WaterAid in Bongo and World Vision in Asutifi North.

• Implementation partners

District Assemblies cannot transform WASH services alone. Each district has at least one specialist implementation partner currently playing a central role in developing services working to the district WASH plan. These partners have become familiar brand names in communities. In Wassa East people talked about NUMA water, in Bongo communities progress was linked to "when WaterAid came" and in Asutifi North, one chief had a slogan "where World Vision goes, water flows."

• Motivated staff

Districts have many partners but the central coordinating, monitoring and oversight role belongs to the District Assembly. There are critical roles at the level of Coordinating Director, Development Planning Officer, Environmental Health Officer and senior members of the district WASH team who must translate the medium term development into an effective WASH plan and communicate effectively at community level. The three districts had proactive and motivated teams to lead the day-to-day work.

• Community level leadership

The example set by influential people within the community is critical in promoting safe water, sanitation and hygiene. If a sub-chief is first to build a household latrine, others follow. In one community in Bongo, members of the community Water and Sanitation Management Team (WSMT) had the right to inspect latrines and to fine people who defecated in the open. WaterAid Ghana has trained community members to be more active in upholding their rights to water and sanitation. In Wassa East one Queen Mother is campaigning for household water connections. In Asutifi North traditional leaders were actively engaged in the development of a Master Plan. Civil society groups play an active role in educating communities to take responsibility for maintaining services.



Paying for water at a water point in Kenyasi, Asutifi North. Small payments are vital to sustainability.

• Cost recovery

Payment systems for water in rural communities often fail to cover the costs of minor repairs, leaving the community without water when there is a breakdown. All three districts are making determined efforts to improve cost recovery level to cover the costs of minor maintenance. The sums charged are small – 10 pesewas (US\$ 0.017) for 20 litres of water, but vital to sustainability. In Wassa East, communities sign an agreement with Access Water to practise pay-as-you-fetch, with monthly bills for those who have household connections. New systems introduced in Asutifi North are all on the basis of pay-as-you-fetch and vendors are trained to ensure that the money is collected and banked. In Bongo the District Assembly does not give directives about how money is collected but encourages communities to make their payment systems work.

• Supportive donors

District Assembly budgets are stretched over a range of services. Financial support is required to implement WASH plans. Donors not only provide funds; they provide encouragement and support. In Wassa East, capital and central staff costs for Access Development are covered by Water4 which is supported for work in Ghana by the Netherlands' Enterprise Agency (RVO). The Conrad N. Hilton Foundation provided funds to subsidise the cost of household connections and provided training in marketing. WaterAid Ghana provided funding for health care facilities and schools in Bongo and for its work in communities. It is looking for further finance to continue work in the district. In Asutifi North, the Conrad N. Hilton Foundation provided finance towards the ANAM process and brought its grantees together and encouraged them to work collaboratively.

Ambitious targets and innovative methods

These districts all faced low rates of access to water and sanitation but set ambitious targets for a high level of service delivery. Schools and Community Health Planning and Services (CHPS) centres have been a particular target for improved facilities for the most vulnerable. Mechanised provision has become more common, aiming to provide water 24/7, through a combination of solar power and larger water tanks, to remove the need for costly electricity or even solar batteries. One innovation being trialled is to use mobile money to activate water points using a smart card.



Modern flush toilets with menstrual hygiene facilities at Foe Primary School B, in Bongo District

• Sanitation and hygiene as well as water WaterAid Ghana links the provision of water in Bongo District to sanitation and hygiene and has provided some schools and health premises with modern flush toilets. The District is promoting Community-led Total Sanitation (CLTS), helping communities to see how open defecation threatens their water supply. In Asutifi North, World Vision and the District Assembly are telling communities: "no sanitation, no water." In Wassa East, the District Assembly is working with Community Water and Sanitation Agency to introduce CLTS in 15 communities with support from the World Bank.

Potential challenges

• Sanitation and hygiene

Sanitation coverage in all three districts lags behind. Sanitation promotion is not yet strong enough to eradicate open defecation and ensure that every household has its own latrine. Hygiene and handwashing with soap, is impossible to practise in the absence of facilities.

• Solid waste - the plastic bag epidemic

Solid waste is a major concern in all three districts. Traditional methods of dealing with waste have been largely abandoned, leaving no effective collection system outside urban areas. Many communities live in a sea of floating plastic which blocks drains and blights community life. The national contract for dealing with solid waste is felt to be unsatisfactory.

• Payments for operation and maintenance

Where effective cost recovery is missing, facilities are at risk. Payment systems need to be fair and robust and raise enough revenue to repair systems.



One of the basic toilets made by families in Asaloko, Bongo



The all-too-common sight of a sea of plastic waste strewn on the ground

• Longer term challenges of full pits and liquid waste

As open defecation is eradicated and populations in peri-urban and urban areas grow, the need for a strategy to deal with the contents of pits will be essential. Transforming faecal waste into safe fertiliser is an aspiration, but the technology and safe practice for doing so have not yet been developed. This longer term threat needs national attention.

• Sustaining standards and water quality

As social and commercial enterprises become more common in rural WASH, it is essential that standards are not lowered. It has been suggested that national guidelines are needed to prevent competition on pricing damaging water quality. Asutifi North is seeking ways to monitor water quality at lower cost. Currently, the cost of testing water points at six monthly intervals is prohibitive.



Water tanks being unloaded at the Access Development centre in Wassa East District

The Three Districts

Wassa East: aiming for 90% coverage by the end of 2020

Wassa East in Western Region is an overwhelmingly rural area with a population of more than 105,000 people¹. In 2015, the District was facing a water crisis: about six out of every ten water facilities were non-functional, and payment systems had largely broken down. The District Assembly launched a Sustainable WASH for All programme to improve both water coverage and sanitation and looked for partners to help them.

In 2015 the Assembly signed a Memorandum of Understanding (MoU) with Access Development, a limited liability company in Ghana established by the international NGO

Water4. Access Development provides NUMA purified water in communities which sign an agreement for a pay-as-you-fetch system. NUMA water has become a brand name showing that people will pay for water that is convenient and safe. In 2015, a little over half of the population of Wassa East (56%) had access to safe water. Today the figure is 75.5% and the District is aiming for 90% coverage by the end of 2020. The District Assembly expects to cover the other 10% by the end of 2023.

A Community-led Total Sanitation (CLTS) programme was launched in 15 communities with the Community Water and Sanitation Agency. By March 2020, 6 of the 15 communities had been declared open defecation free. But safe sanitation levels remain very low.

Access Development and the District Assembly will also focus on schools, most of which lack water or sanitation facilities. "NUMA has become a brand, showing that people will pay for water that is convenient and safe"



Collecting NUMA water in Sekyere Aboaboso



Water point at Foe Health Centre in Bongo District

Bongo District: Tackling the impact of fluoride

Bongo District in Upper East Region, is one of the driest areas of Ghana with a population of just over 103,000 people. More than 30 boreholes had to be taken out of use because of

dangerously high levels of fluoride in some underground water, causing damage to the bones and teeth of the people who drink it. In 2015 Bongo District Assembly began to take urgent action with support from a number of donors including UNDP and UNICEF. Providing safe water has become a top priority.

"WaterAid Ghana worked with Bongo District on WASH for Public Health in 24 communities"

Over the past five years WaterAid Ghana has worked with Bongo District on a WASH for Public Health (WASH4PH) project in 24 communities focusing on schools and community health care facilities. In 2019 the District Assembly doubled its own budget for WASH and committing itself to drilling and rehabilitating 15 boreholes a year and developing six small town schemes covering 20 communities. Water coverage is now 84% and the District Assembly expects to achieve full coverage by 2025.

WASH4PH also addressed sanitation. In 2015 when the project began, more than eight out of ten people were practising open defecation in Bongo District. The District Assembly and WaterAid Ghana have been promoting Community-led Total Sanitation and providing hygienic toilets for schools, health facilities and markets. By 2020, 19 of 24 communities where WaterAid Ghana worked had become open defecation free. The overall District situation is also improving: 38% of households have access at least to basic sanitation. Asutifi North District: A beacon for hope in achieving full coverage Asutifi North is a District of about 65,750 people in Ahafo Region. The District Assembly committed itself to achieving Goal 6 of the SDGs by 2030 through a coordinated WASH Master Plan, known as the ANAM initiative. This brings together the District Assembly, traditional leaders and development partners and is integrated into the District Medium Term Development Plan. The initiative has widespread community support.

In 2019, World Vision drilled 22 new boreholes and rehabilitated a further 34 with the District Assembly. Safe Water Network and the District Assembly have delivered two small town networks with a third in an advanced stage of planning. Aquaya Institute provides

kiosks and starter grants for water vendors to improve livelihoods. Safe water coverage rose from 4% in 2018 to 12% in 2019 and is set for another rise due to new infrastructure that came into use at the end of 2019, with schools and health facilities especially benefiting. Water quality testing is being stepped up.

"The ANAM initiative brings together the District Assembly, traditional leaders and development partners"

IRC Ghana provides hub support to the District Assembly with an office where partners work side by side. An ANAM website and monthly radio programme interact with the public while a WASH desk in the District Assembly handles feedback and complaints.



Water vendor at Agravi village in Asutifi North - payments help to ensure systems are maintained.

Wassa East District

Communities show they will pay for clean, pure water

Pure water has become a powerful selling point for communities in the Wassa East District of Ghana, proving that people will indeed pay for water if they can be sure it is safe.

Four years ago (2016), a little over half of the population of Wassa East (56%) in the Western Region had access to safe water, a situation the Wassa East Chief Executive, The Hon. Wilson Arthur, described as "scary". Today the figure is over 75% and the District is aiming for 90% coverage by the end of 2020. Between 2016 and 2019, the District Assembly provided 25 new boreholes from its own resources and donor funds. The remainder of the increase has been generated through a link with a social enterprise.

NUMA water has become known as a mark of quality for communities that accept a pay-as-you-fetch system. It is delivered by Access Development, a Ghana based company established by the international NGO Water4.



Sylvester Adjapong director of impact and quality for Access Development explains the Nexus purification system at Sekyere Aboaboso in Wassa East

At the heart of the NUMA system in each major community, known as a Nexus station, a solar panel pumps water at 40psi into a filtration system, where it passes first through filters, a UV steriliser and a chlorinator. The water then passes through a pre-pay meter into a tank from where it can be drawn down to the taps. From here water is pumped to outlying satellite sub-stations, known as Nodes, and then to household water points or to health centres to tap points known as the Now.

Sylvester Adjapong, director of impact and quality for Access Development, says that those who come to collect water can see the purification process in action and this gives them confidence. For smaller communities Access Development is also trialling a chlorination system that will work with a handpump.

In Sekyere Aboaboso, the vendor Hannah Breabi buys NUMA water in bulk at 16 pesewas for 18 litres (the standard bucket) and sells it at 20 pesewas, keeping 4 pesewas commission on each litre. In the dry season the whole population depend on this water and she can earn 30 GHS a day. However, in the rainy season sales fall off as people return to traditional sources. Vendors need to be dedicated and honest, she says. "I am very smart so no one has stolen from me. I don't sell on credit. You pay as you fetch."

For Abena Ahimaa, mother of an 11-yearold daughter in this community, NUMA water has replaced the need to walk long distances to carry water home and has cut costs. In the past she paid 20 pesewas for a plastic sachet containing just half a litre of drinking water. Now she pays the same sum for 18 litres of pure water for her family—and plastic sachets no longer litter the ground. Her hope, one day, is for a household connection.



Hannah Breabi, water vendor at Sekyere Aboaboso

"I am very smart so no one has stolen from me. I don't sell on credit. You pay as you fetch"



Sylvester Adjapong from Access Development with Dorcas Appiah nurse in charge & Abigail Afia Sekyiwaa senior community health nurse at Sekyere Aboaboso CHPS

The CHPS (Community Health and Planning Services) health centre in Sekyere Aboaboso has its own piped connection to a tap stand with a pre-paid meter. Nurse in charge, Dorcas Appiah, is delighted they no longer have to send patients away to fetch water, especially mothers who are giving birth or children with high temperatures. "Now that we have this water, it is easy for us to give medication to the clients. It is very important to us."

At Wassa Edwenase (estimated population 2,346), Rose Quaicooe has a household connection with a prepaid meter and tap just outside her door. Her family buys water using mobile money and receives a code for the tap to deliver water. A 20 GHS consignment (about US\$ 3.50) lasts her household 2-3 weeks. "Since we connected our home we do not buy water from vendors," she says. "This is the only water we use now."

"It is our desire that all households get connected to NUMA water in their homes" Queen Mother Nana Yaa Agoh II

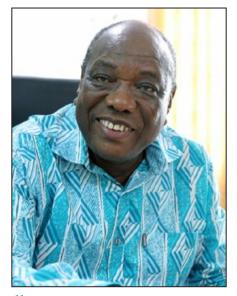
Nana Yaa Agoh II, Queen Mother at Wassa Edwenase, says that having pure water has reduced child sickness and improved school attendance. "It has reduced the long distance our children had to walk for water and this is comforting." However, she says that few families can afford household connections. "It is our desire that all households get connected to NUMA water in their homes. We would appeal to Access Development, Government or NGOs to assist the poor to connect NUMA at their homes."



Wassa Edwenase Queen Mother Nana Yaa Agoh II



Waiting to collect water at Sekyere Aboaboso



"We do not intend to leave the District as long as our vocation is in place. We hope we will be here for so long as people need water" Ing. Yidana Mahami, Water4

Access Development plans to achieve 200 individual connections by the end of December 2020, made up of 100 households, 20 health clinics and 80 schools. The cost of a connection was originally GHS 2,000 (US\$ 350) but, thanks to subsidies from the Conrad N. Hilton Foundation, was reduced to GHS 500 (US\$ 90), and GHS 450 (US\$ 80) for those who sign up early.

Access Development is a limited liability company that operates as a social enterprise. Sustainability in this context means covering running costs and maintenance, but not capital equipment or salaries of the core central staff. It does cover commission payments for more than 100 vendors who look after 157 managed water points. Access Development also dispenses 5% of takings back to communities for social projects and aims in future to give 10% of net profits to the District Assembly.

The Water4 Country Director, Ing. Yidana Mahami is ambitious for the future. "Our aim will be to make sure that nine people out of ten are able to consume NUMA water as much as possible. And that will not just be for drinking

- we have to encourage them to use it for other purposes – like washing and many other uses of water. We are trying to make whatever we are doing sustainable and to make Access Development an independent company working with very little support from donors."

To underline its long-term commitment, Access Development is looking for a 20 year concession from the District Assembly with an option for a further 20 years and is increasing its marketing for household connections. Ing. Mahami says: "We do not intend to leave the District as long as our vocation is in place. We will continue to keep this flowing to be sure that those infrastructures do not break down. We intend that everything we are putting in place will be kept by us, and that is why we employ people who take care of them. We hope that we should be here for ever and ever so long as people need water."

Wassa East District Assembly provides for smaller and poorer communities

If Access Development achieves its target of providing water for 90% of the population of Wassa East, that still leaves the needs of more than 10,000 people in this District of about

105,000 people to be addressed. However, Estherine Mensah, Wassa East District Planning Officer, is hopeful that by 2023 all 192 settlements in the District will be covered for safe water as the District Assembly takes responsibility for poorer, smaller communities that cannot yet afford pay-as-you-fetch.

The final 10% per cent may prove to be the toughest challenge. Payments systems are problematic in smaller, poorer villages. "The communities where we will be providing facilities will be basically those that will be contributing on a monthly basis or when it is the cocoa season," Estherine Mensah says.

The District is taking steps to strengthen water management so that communities have funds for maintenance. Estherine Mensah, explains, "We provided facilities for the communities and we trained the water and sanitation management teams to manage their facilities. It was expected that whatever they sell, they would



"You would be in the office and they would call... 'My borehole is not working... Assembly come and help'" Estherine Mensah, Wassa East District Planning Officer

use the proceeds to manage the system. But you would be in the office and they would call. 'My borehole is not working; my hand dug well is not working- Assembly come and help."

The District Assembly audited 202 water points in 2015 as part of the SMARter WASH project and found that 50% were not functional. The Assembly developed a four-year Sustainable WASH Plan. Since then, the Assembly and partners have provided 25 boreholes towards their objective of access to safe water for all, and plan to budget for more. Of the 25 boreholes, 13 were for schools, most of which still lack water and toilets, and for communities where pay-as-you-fetch is not yet acceptable.



Dora Donkor at the pump installed at Donkokrom by the District Assembly in 2016.



Anthony Quaicoe, Planning Development Officer (centre) with Kwabena Nkrumah, sub chief of Nyekonakpoe, and Obed Amos Telvi, Wassa East Environmental Health Officer, left. This is one of 25 pumps the District Assembly installed in 2016.

When water management remains in community hands, performance varies.

In Donkokrom the District Assembly installed a borehole to replace a stream that in the dry season is reduced to little more than a pool. Caretaker and community mechanic Noah Donkor was trained to maintain the system and so far has succeeded. "The mechanic dismantled the pump and gave us the opportunity to remount it. He realised we were good at fixing the pump and will be able to fix minor faults." When a fault did occur, the community had enough money for a new part and Noah Donkor was able to replace a washer and keep water flowing.

In Nyekonakpoe village, where the Assembly installed a new pump in 2016, there is currently no money being collected. The Water and Sanitation Management Team introduced a monthly GHS 2 charge for each household but some households preferred the water from the old pump and refused to pay. This led others to stop and the payment system collapsed. This is a problem Kwabena Nkrumah, village sub chief, is trying to resolve. "There is an ongoing discussion to get a woman to manage the system as pay-as-you-fetch," he said. Should the system break down in the meantime, they would compel people to contribute to the repair costs.

CWSA 'professionalising' water services

Facilities in some larger communities are managed by the Community Water and Sanitation Agency (CWSA). In Ekutuase, home to 2,700 people, water is pumped from an alkaline treatment plant which supplies eight standpipes and 33 households. A household connection costs around GHS 700 (US\$ 125) but subsequent charges are low. Three nurses from the Ekutuase community clinic share a staff bungalow and each pays about 10 cedis (US\$ 1.75) a month for water from a tap outside their door.

"It is a gradual process. People are connecting to their households. We will surely get there."

Senior Enrolled Nurse Emmanuel Appiah says the whole community benefits from good water. "People



Technical engineer Eric Christford Mensah explains how CWSA professionalised the service and introduced payas-you-fetch in Ekutuase. He is with Assembly Member The Hon. W/O retired Thomas Gyimah.

were fetching water to drink from the river and they didn't boil it or treat it, and so were getting skin and abdominal diseases. These diseases have gone down since everybody in the community is using the piped water."

By the end of 2020 CWSA hopes to have 100 household connections. CWSA technical engineer, Eric Christford Mensah, says that these connections and pay-as-you-fetch will eventually ensure sustainability. "The revenue we are generating is not currently able to keep up with the maintenance and all the staff, but it is a gradual process. People are getting into the system and connecting to their households. We will surely get there."

Overall, the District has SDG 6 in its sights. Wassa East District Chief Executive, The Hon. Wilson Arthur, said they reacted to a 'scary' situation when they discovered how low effective coverage was, and adopted a programme to draw in support. "That is how we got commitment from Access Development. We shared everything with them and so far it has been good."

Once full coverage is achieved, the District will not let it slip. "Sustainability is one of the goals we set ourselves from year zero. We have a formula in place where we keep some of the money for maintenance so we are building in some buffer for that. I am sure by the time Access Development leaves we will have a system in place to make it sustainable."



The Hon. Wilson Arthur, Wassa East District Chief Executive

"Sustainability is one of the goals we set ourselves from year zero"



Demand soon outstripped supply—reflecting that the community was ready for change but resources were in short supply

Six communities succeed in becoming open defecation free

In 2015, Wassa East had very low levels of basic sanitation. But when the District Assembly launched a campaign to promote household latrines it was almost too successful! The Assembly WASH team went from house to house, stimulating demand and providing toilets for those who applied. Demand soon outstripped supply—reflecting



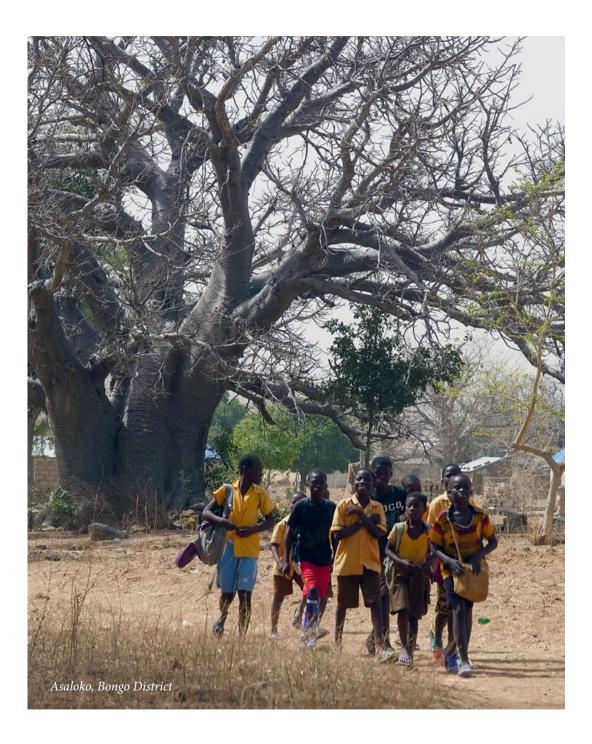
Obed Amos Telvi, Wassa East Environmental Health Officer

that the community was ready for change but that the resources to meet that demand were in short supply.

Obed Amos Yao Teli, Wassa East Environmental Health Officer, described how they had to pause and reflect. "As the Assembly started assisting people with the household toilet facility, more applications started coming in. The resources went down—so the Assembly had to stop its programme and go back to remobilise itself."

In 2016, the Assembly received financial support from the World Bank. In partnership with the Community Water and Sanitation Agency, a new programme was launched to trigger Community-led Total Sanitation in 15 communities. The programme delivered 502 Digniloos, a Ghana designed affordable, durable and reusable plastic latrine slab that is easy to install and maintain.

In March 2020, the CWSA declared six of the communities to be open defecation free. Work in the other nine is ongoing.



Bongo District

District Assembly and partners work to resolve fluoride legacy

Bongo District in the Upper East Region of Ghana became known throughout Ghana for the quality of its water—but, sadly, for the wrong reasons. The District found it was a global hotspot for fluoride concentration. And while many countries add low levels of fluoride to drinking water to prevent tooth decay, high concentrations do just the opposite—damaging teeth and bones and being implicated in other health problems.

Ebenezer Asomaning, Bongo District Engineer and WASH Focal Point, notes that the effects are visible in the community. "You can see the dental fluorosis in our children and some other groups. We are also aware that it affects the bones with constant pain in older groups, so the effects are very serious."

Bongo District Assembly implemented good practices to combat this throughout the District. First, however, more than 30 boreholes that had been dug as improvements to replace surface water sources had to be capped after they were found to be severely affected by fluoride. There was an urgent need to replace them with safe clean sources.

Daniel Canyase, Co-ordinating Director of Bongo District Assembly, describes how the District had to appeal for help. "Community members and leadership cried out to Government and other development partners to come to assist them. All the opinion

leaders and the stakeholders coordinated their efforts to get people to appreciate their plight."

And partners did respond—including the World Bank, UNDP and UNICEF. Most recently, WaterAid Ghana has been working on a WASH for Public Health (WASH4PH) project in 24 Bongo communities, focusing on schools and community health care facilities (CHPS). The District Assembly itself also responded, more than doubling its WASH budget for 2019/20 and committing itself to drilling and rehabilitating at least 15 boreholes a year and increasing the number of small-town schemes.



Daniel Canyase, Bongo District Co-ordinating Director



Mechanised systems with solar technology avoid the need for electricity bills for pumping water .

The Co-ordinating Director says that water has become a top priority for the Assembly. "Even though the District Assembly is doing other things including education and health, we see water as a major concern because of the vital role it plays in our lives." "We see water as a major concern because of the vital role it plays in our lives" Daniel Canyase, Bongo District Co-ordinating Director

Bongo District has made strong progress. Water coverage is up from 70% in 2017 to 84% in 2020. However, less than a quarter of people receive safe water through mechanised boreholes. By next year (2021) the District plans to raise mechanised coverage to 40% with six small town schemes covering 20 communities, based on deep boreholes. WaterAid and the District Assembly install mechanised systems powered by solar technology so that communities do not face electricity charges for pumping water. Ebenezer Asomaning, Bongo District Engineer and WASH focal point, is optimistic that they will achieve SDG 6 ahead of schedule. "We are on course by 2030, even before that time. Looking at our investment and what we have now, we will be able to achieve 100% coverage by 2025."

More emphasis is being placed on ensuring that community Water and Sanitation Teams collect money to sustain the systems, while the District Assembly WASH team provides technical advice and training. The most efficient means of collecting money is through

pay-as-you-fetch. However Daniel Canyase, District Co-ordinating Director says that it is important that payment systems have community support and some prefer monthly collections. "We do not force them to adopt a certain system of collection. We rather build their capacity on what they already know and how to do it. If you push them and support them a little they will be able to collect the money."

Sanitation as important as water

The focus is not only on water. Sanitation is equally significant. In 2015 when WaterAid began its WASH4PH project, more than eight out of ten people were practising open defecation in Bongo District. So when WaterAid installed solar powered mechanised water systems to pipe water across communities, it also helped them to tackle pollution and hygiene issues by introducing Community-led Total Sanitation (CLTS) and training community members to promote good hygiene.



Mumuni Abdulai, Bongo District Environmental Health Officer

"People start to think that the situation where we find ourselves is not the best and they think about how to change it" The District Environmental Health Officer. Mumuni Abdulai, describes how the District and partners trigger the CLTS process leading people on "a walk of shame" through the community, noting where people defecate and then drawing a community map on the ground, marking all the houses, schools and water points. People soon agree that when the rain comes the faeces will pollute the water supply. "They will tell you - the faeces will all flow to the water sources. In effect, if you go and drink, what are you doing? You are taking in your own faeces. That is where the triggering starts. People start to think that the situation where we find ourselves it is not the best and they think about how to change it."

Today the District reports that 38% of households have access at least to basic sanitation and the number of communities that have been declared open defecation free is increasing.



George Kwabena York, WaterAid Ghana Head of Policy, Advocacy and Campaigns



Over the course of its five year project WaterAid Ghana supported 19 communities to become open defecation free

"The sanitation component is very difficult to change because it is really about attitude and behaviour. We still have a long way to go"

George Kwabena York, WaterAid Ghana

More communities become open defecation free

Over the course of the five year WASH for Public Health project, completed at the end of December 2019, WaterAid helped 19 of 24 communities where it worked to become open defecation free (ODF). WaterAid is looking for ways to ensure that progress is sustained and expanded to more of the 99 communities in Bongo District.

George Kwabena York, WaterAid Ghana Head of Policy, Advocacy and Campaigns, says that with resources and commitment, safe boreholes can be dug and water provided, but good sanitation and hygiene practices are harder to achieve. "The sanitation component is very difficult to change because it is really about attitude and behaviour, so it takes time. We still have a long way to go. We are developing case stories and ensuring that we share them with the District Assembly and throughout the country for others to also buy into, so that together we can really help the country to achieve our SDG by 2030."



Weaving cloth in Foe—Communities must be on board if development interventions are to succeed.

Bongo benefits from the support of partners, but the District Assembly takes responsibility for developing a Medium Term Development Plan and District Water and Sanitation Plan with stakeholders, within guidelines set in the National Medium Term Policy Framework. District Co-ordinating Director Daniel Canyase says: "We don't leave anybody out of the equation. Everybody is brought on board and is supported to do what is expected."

Thomas Kugoriba, District Assembly Planning Officer, says that the District has to create an enabling environment for development partners and also ensure that communities are in favour of their interventions. "Before we start any project with development partners, we get in touch with the traditional authorities, interact with them and ensure they buy into the idea. We ensure that they are part of it so that they can take ownership of the project. It all boils down to good leadership."



"Before we start, we get in touch with the traditional authorities and ensure they buy into the idea. It all boils down to good leadership"

Thomas Kugoriba, District Planning Officer



Asaloko, Bongo District, a community of widespread homesteads

Clean and safe water and sanitation has brought new life to Asaloko

Asaloko is a small community in the Bongo District where lives have been transformed through the introduction of safe water and effective sanitation. Householders no longer carry water long distances, children are better able to learn and the whole environment has

been cleaned up. Just 360 people live in this settlement of 24 widespread compounds. A primary school also meets the needs of 201 children from Asaloko and the neighbouring community of Amanga.

WaterAid installed a solar powered mechanised water system piping water to the school and the community as part of the WASH for Public Health (WASH4PH) project, and helped Asaloko inhabitants to tackle pollution and hygiene issues through community-led total sanitation (CLTS).

The impact is visible. Three tall structures with overhead tanks supply clean, safe water, serving Asaloko Primary School and the community through



Mechanic Atanga Adongo keeps the water flowing to overhead tanks



With water on tap, children aged 4 to 13 at Asaloko Primary School are better able to focus on lessons

three tap stands. To reduce cost, the solar powered system operates without batteries and the pump shuts down at night. Mechanic Atanga Adongo opens the pipeline each morning and the system pumps about 100 litres of water a minute to overhead tanks with enough storage for the community to access water 24 hours a day, seven days a week.

Children at Asaloko Primary School are happier and more focused now there is water close by. Head Teacher, George Apikia says that lessons used to be delayed as children walked for more than 25 minutes to fetch water. Now they fill water bottles from the Polytank or fill cups provided by the school from water outside the classroom. They also have a toilet on site and wash their hands using a Veronica bucket and soap. The children put on WASH education performances at the school for parents and encourage them to make tippy-taps

so they can wash their hands. Jerry Nyaaba, secretary of the Asaloko water and sanitation management team (WSMT), agrees that the project has improved the children's education. "Any time they come to school in the morning there is enough water for their use and when they go to the toilet there is water to wash their hands. It has improved health conditions and made life and learning easier. "

"Children are happier and more focused... Lessons used to be delayed as children walked to fetch water"



Jerry Nyaaba, secretary of the Asaloko WSMT, says water in school has made learning easier



Jennifer Nyaaba with a home made tippy-tap she has encouraged other villagers to emulate.

WASH4 Public Health also brought sanitation improvements. Almost every household has a toilet and many have made tippy-taps for handwashing. This is also one of relatively few communities not disfigured by plastic bags drifting across the landscape.

Jennifer Nyaaba, WSMT advocacy team secretary, describes how things have changed. "Before 2016 you would come to the community and the whole place smelled. People thought that maybe in defecating in the open they were adding manure or something like that to their land – ignorantly. But true awareness came to them." She points out the tree where people used to defecate. "If it happens that you are all ladies or men then you are able to manage but if it happens that it is a lady and man you don't feel comfortable. And if the pigs are around they are there crying to come and eat the faeces. We cook the meat of that pig and eat it. So we are causing harm to our bodies, our systems and a lot of diseases."

Asaloko was declared open defecation free in July 2019 and proudly maintains its status. "You can see there is no rubbish – we don't litter, we don't defecate openly. If you go to a far place and you feel like defecating and don't see a toilet, you will be in a hurry to get home."

Teacher Margaret Awoo is happy that Asaloko was supported by WaterAid Ghana. "They came here to train us how to clean and how to end open defecation. Through that every household has to build a toilet." The community selected leaders to check that everyone was following the new ways. "We have days that they go round to see – they enter the toilet and see whether it is clean. And we charge you. If we find your toilets unclean or your surroundings with rubbish you pay. And if we catch you defecating outside not in a toilet you pay. Because of that the community is clean."



Rosa Nsobilia... water in our village is better than in some cities

It is not only the children who appreciate the changed circumstances in Asaloko. Rosa Nsobilia, pregnant with her second child, was advised not to let her firstborn drink from the borehole where they used to collect water. "But this one, I think it is quality. If you give the child this water I think the child will be healthier. I am happy, simply because there are some people in cities that don't have quality water. We are in a village but we have quality water to drink."

"There are some people in cities that don't have quality water ... We are in a village but we have quality water to drink"

Water is vital for education, says Head Teacher

Asaloko is not the only community in Bongo District where improvements in water and sanitation have transformed school lives. "Water is very, very important for children in terms of their education," says Clement Akazeire Nyaaba, Head Teacher of Foe Primary

School B. His school with 186 pupils is one of three that shared a single borehole where the children used to queue—often arriving late for lessons. Now a water tower stands outside the school. "There is an abundance of water," says the Head Teacher . "Classes start as normal. We are able to follow the timetable."



Clement Akazeire Nyaaba being interviewed at his school in Foe

WaterAid Ghana and the

District Assembly brought water to the school in 2017 and added two toilet blocks in 2019. Bongo District Assembly plans for all three-class schools to have a mechanical borehole and pour flush toilets. 13-year-old Regina Awinbire explained that the old toilets were unclean and felt dangerous. "Students are afraid to go there to defecate. They think they



Regina Awinbire at Foe Primary School B.

may fall. I myself was afraid." This led to children defecating around the school, putting health at risk. Now, toilets are open throughout the school day for students, with separate toilets for staff. The school teaches girls about menstrual hygiene and the girls' block also has a changing room. WaterAid has also asked families in Foe to build toilets at their homes. "We encourage the students to tell their parents to have one in their homes," says Mr Nyaaba.

Five-star toilets at health centre set standards for hygiene

Isaac Adita has been Principal Enrolled Nurse at Foe Community Health and Planning Services (CHPS) since 2016—when they had neither running water nor effective sanitation. Mothers or relatives had to fetch water before giving birth. Instruments could not be easily washed and mothers and nurses had nowhere to clean themselves after delivery.



Isaac Adita with patients at the Foe CHPS centre. This is now one of the most popular centres for women to deliver their babies.

Today, some of the smartest and cleanest toilets in Bongo District are found at this community health post. The CHPS serves more than 2,280 people in four communities stretching to the border with Burkina Faso. WaterAid Ghana—with funding from Canada and support from Bongo District Assembly—brought piped water via a mechanised borehole in 2017. In 2019 a toilet block and a brick kiln for burning sharps were added. The system is connected to a biogas unit that will eventually supply cooking gas to the staff quarters.

This is now one of the most popular CHPS where women choose to have their babies. Patients have a shower and toilet next to the delivery room. They can wash themselves and their clothes before returning home with their babies.

Infection control is a major objective for all CHPS and here it is now easy to sterilise instruments and keep the centre clean. Liquid soap and toilet rolls are provided for use by patients.

"Cleanliness is next to godliness," says Isaac Adita. "Health workers have to ensure that the structure is clean enough to reduce infection so we educate the community on how to use the toilet facilities any time they visit. I am very, very, happy."



Flush toilets at Foe CHPS

Bongo Soe: small town system offers household connections and market place toilets

Bongo District is increasing its reliance on small town water systems to provide safe water in areas where the population is more concentrated. Deep boreholes provide water to storage tanks and standpipes across the area, with added potential for household connections.

In the town of Bongo Soe three mechanised boreholes pump water to a single overhead tank which distributes the water to eight standpipes, currently used by about 6,000 people. They pay small amounts 10-20 pesewas (US\$ 0.17-0.35) depending on bucket size to collect from the standpipes.

By April 2020, only 15 households were directly connected but the Water and Sanitation Management Team has a target to increase household connections to at least 100 and a second overhead tank to meet demand. Households buy the pipes and meter needed for connection—costing from 300-500 GHS (US\$ 52-88)—but do not pay a



Overhead tank at Bongo Soe provides water to 6,000 people

connection fee. They are billed monthly for water they use.

"When market traders return they will find a superb suite of toilets has been added—for the first time there will be a small fee to use them" In the heart of Bongo Soe a market site is being redeveloped. By March 2020, while the market was still being constructed, there was already a tap in the market square. When traders return they will find a superb suite of toilets has been added. And for the first time in this District there will be a small fee to use the toilets.



Market trader Cynthia Azure will look after the new toilet block where those using the market will pay a small fee to use high quality facilities.

Cynthia Azure has a cloth stall at the market and is also the water vendor. She will look after the toilet block and collect a small fee from everyone who uses it. There can hardly be a market place with smarter toilets! Looking proudly around the new facility, she says: "The way they have done it is nice. That is what we want. We should not be defecating outside."

Daniel Canyase, Bongo Assembly District Co-ordinating Director, agrees. "A toilet is very important for every public space and more especially for a market where we have so

many people coming from outside the community and we are still battling with household toilets. Otherwise what is going to happen is they will free themselves in any case and where will they do that? They will end up polluting our markets and our communities."

"A toilet is very important for every public space and especially for a market, where many people come from outside" Good practice for WASH in Ghana: Meeting the targets for water, sanitation and hygiene by 2030



Asutifi North Collaboration and partnership make water flow

In March 2018 Janet Wilson was fetching water from the old well in Agravi village when a camera crew arrived. In the video she can be seen – a woman in her early 60s wearing a yellow and blue headscarf – standing on the rim of the open well, pulling up water in buckets on a rope¹. Later she is seen loading up her large container of water on her head and setting off up a steep hill about half a kilometre to her house – a long daily struggle for so many women in this community.

Almost exactly two years later in March 2020, Janet Wilson was filmed again in the same village in Asutifi North in the Ahafo region of Ghana. She is wearing the same yellow and blue headscarf and still collecting water. But this time there is no hill and no long journey. It is barely 50 metres from the new handpump in the heart of her community to the water storage barrel at her house.

Janet Wilson is a personal example of how Asutifi North has become a beacon of hope for water services in Ghana. In the old days, she tells us the water sometimes dried up completely and they would have to sleep by the well waiting for it to fill. Then their legs became exhausted. "You needed to struggle just to get water. Today you can just walk a very short distance and you are okay."



Spot the difference: Left 2018 Agravi village, Janet Wilson pulling up water from an open well by rope before carrying it on her head half a kilometre up a steep hill. Right 2020 Agravi village, Janet Wilson looks on as water is pumped into her bucket before she carries it barely 50 metres to her home.

1. The 2018 video can be seen at https://www.youtube.com/watch?v=c-29m6Q3noE

Good practice for WASH in Ghana: Meeting the targets for water, sanitation and hygiene by 2030

Agravi now enjoys one of 22 new boreholes that World Vision drilled and completed during 2019 and, with the District Assembly, rehabilitated a further 34. Partners are all working to a WASH Master Plan prepared under the ANAM initiative¹ which brings together the District Assembly, traditional leaders and development partners to achieve Sustainable Development Goal 6 – water and sanitation for all by the year 2030. The Master Plan has been integrated into the District Medium Term Development Plan – so that everyone works to the same agenda and aims.



No queues and no conflict: Rebecca Osei collects water at Wamahinso with vendor Rachel Adjeiwah

Safe water coverage rose from just 4% in 2018 to 12% in 2019 and is set for another large rise in 2020. Safely managed services have doubled in urban communities. In total by April 2020 the partners had constructed 27 hand pumps and 9 limited mechanised boreholes and rehabilitated 34 hand pumps.

In Wamahinso, a larger peri-urban community, there was a mini riot in 2018 when the water tap ran dry². Women who had

been queueing for hours, complained that their children had been unable to go to school. In 2020, when the cameras returned, the water point was tranquil. Everyone had collected their water and left. Water vendor, Rachel Adjeiwah, said: "We used to experience chaos, fighting and misunderstanding on whose turn it was to draw water. By the grace of God, the situation has improved... we now have peace."

Wamahinso has a limited mechanised small town water system providing safe water to more than 2,500 people, jointly funded (60/40) by the Safe Water Network and the District Assembly at a total cost of US\$ 60,000. Water is pumped from the main borehole into a backwash system and then to two 10,000 litre tanks where it is chlorinated and flows to five

1. Asutifi North Ahonidie Mpontuo (ANAM) is an initiative to achieve District-wide access to WASH services for all - approximately 84, 423 people - by 2030.

38 2. Video at https://www.youtube.com/watch?v=335kow9v4wY&list=PLbK8slkI4E-nIfACs_ Hh9xgBt4k52IWLT&index=1



Asutifi North District Assembly, home of the ANAM initiative to achieve SDG 6.

standpipes. The system began operating on 7 January 2020 and began selling water on 20 January. All the new systems sell strictly on a pay-as-you-fetch basis with a trained water vendor earning commission from sales.



Martin Agyepong from Safe Water Network, checks a filter on the water tower at Wamahinso

"In the first five weeks of service the new system sold more than 200,000 litres of water"

Martin Agyepong, Safe Water Network Field Services Officer for the Ahafo Region, says that while a few people resisted a payment system, the majority have already been won over. In the first five weeks of service the new system sold more than 200,000 litres of water at a cost of 10 pesewas (US\$ 0.017) for 20 litres.

In total the District Assembly and partners spent more than US\$ 500,000 during 2019, the first implementation year, on new and rehabilitated installations. As well as bringing relief to the most deprived communities, there is a focus on water for schools and health centres. These systems also provide community water points where the water is sold to provide a fund for maintenance.



James Ata-Era, District Development Planning Officer (right), greets the Hon. Nnuro Ameyaw Duochia Kah, Assembly member for Wamahinso South.

"What is driving the whole initiative is total political commitment and the dedication of staff. The Assembly together with the chiefs are totally committed."

James Ata-Era, Asutifi North District Development Planning Officer, says that in the first year of implementation they chalked up successes, not only by increasing coverage, but also by communities taking greater responsibility for their systems. All new water systems come

on condition that communities collect money under a pay-as-you-fetch system to provide funds for minor repairs. "The number of requests for maintenance of boreholes to the Assembly has reduced drastically. We used to get a number of requests: 'Our borehole is down; our borehole is down!' With this approach communities are now maintaining their boreholes. Even though it is only one year of intervention, we ourselves are amazed.

"What is driving the whole initiative is total political commitment and the dedication of the staff. The Assembly, together with the chiefs, are totally committed to the initiative. There is also a high level of commitment from our partners. We believe there is strength in numbers ... people with lifelines coming together."

Others agree. Jeremiah Atengdem, IRC water expert in the District, says: "We have laid a very solid foundation. We have a great partnership working well, very functional. We have great political leadership. The District Chief Executive is solidly behind this initiative and we have the community's commitment to ensuring that we protect these water facilities." He points out that most of the new water infrastructure came into service at the end of 2019, so they expect a huge jump in terms of access to water services in 2020.



District Chief Executive, The Hon. Anthony Mensah



Vida Duti, Country Director IRC Ghana



Jeremiah Atengdem, IRC Ghana water expert

The District Chief Executive, The Hon. Anthony Mensah, has been commended for his commitment to the initiative. He says that meeting WASH targets is a commitment to implementing policies from the President and expects to be

"Meeting WASH targets is a commitment to implementing policies from the President"

judged on how well they succeed. "I am going to be measured based on my performance and part of it will be how I was able to deal with it; for people to get potable and available water." He notes that when he arrived in 2017 visitors would arrive at his office with their own bottle of water to show him the low quality. This no longer happens.

Vida Duti, Country Director of IRC Ghana links the ability of the Assembly to mobilise citizens with political leadership. "We have had the chiefs on our side; we have the people being re-orientated on the need to pay for the water services and to ensure the maintenance of these facilities. We see many more communities and households being moved onto safe water. So we think we are doing very well on the water side. I am very, very hopeful that we will even meet the target before 2030."

Such optimism is reflected in the community. In Panaaba water problems have been longstanding and people sometimes had to travel two kilometres to fetch water from the Tano river. Several attempts to find a reliable supply failed until in June 2019 World Vision drilled a 48 metre borehole with a yield of 12 litres per minute and fitted a handpump.

Nana Atakora Amaniampong, Chief of Panaaba, is full of praise for the difference the ANAM initiative has made in his community. "Panaaba is at the armpit of the District. Who would have recognised our need, let alone supported us? The District Assembly and its water and sanitation team have done so well. I live by this slogan. 'Where World Vision goes, water flows."



Nana Atakora Amaniampong, Chief of Panaaba

"The District Assembly and water and sanitation team have done so well. I live by this slogan 'Where World Vision goes, water flows'" Nana Atakora Amaniampong

Can this success be replicated? The District Chief Executive notes

that five nearby districts have expressed interest. Vida Duti is also sure that ANAM can be scaled up in many districts if partnerships are aligned and the political and technical leadership drives the process.

Dr Kodjo Mensah-Abrampa, Director General of the National Development Planning Commission, has followed the ANAM initiative from the beginning and also sees it as a potential model. "Asutifi is not a special area in the country but it has become the Mecca for good water management and of how a team and a group can work together." In

"You realise that this is different ...the kind of thing we want to see. For NDPC, we will take this up and use it."

Dr Kodjo Mensah-Abrampa, Director General, NDPC Kenyasi town he saw how improved water management was having a knock-on effect on other issues and even on economic activity. "You realise that this is different and this is the kind of thing we want to see. For NDPC, we will take this up and use it at the front of our community interaction, our interaction with the districts, and our interaction with our development partners."

Omanhene welcomes Wamahinso network

The Omanhene (chief) of Wamahinso has welcomed the arrival of a solar-powered water network in his town and called for more household toilets to be built.

Nana Agyei Twum II said during a reception at his Palace that the new system solves a major problem for



his people as water plays a pivotal role in their lives. "We have tried it and we know it will benefit the town. I would like to acknowledge the Government through the Assembly for this initiative." Wamahinso was putting in place measures to manage and maintain the system themselves. The Omanhene wants to see it extended to cover the whole town, which is home to more than 2,500 people.

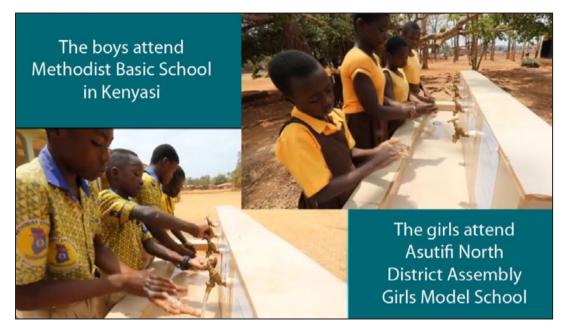
The small town water system solves a major problem for his people as water plays a pivotal role in their lives.

The Omanhene also made a plea for improved sanitation in Wamahinso and more household toilets. "Those who can afford it should consider it in their building plan. I would plead with the Assembly to support those who may not be able to afford it in order to improve on hygienic conditions and reduce sanitary related diseases."

His period as chief has overseen the provision of two boreholes and community toilets, with support from Newmont mining company and Newmont Ahafo Development Foundation (NADeF). He had personally seen to the building of three classroom blocks and provided a bus for senior high school students. The town is also developing a community centre to promote development. "We are open for collaboration with NGOs and will ensure that whatever development is brought on board can be sustained by us."

At the reception, James Ata-Era, Asutifi North Development Planning Officer, described the small town network and how it had been financed (*See pages 38*&39).

School students show how handwashing can save lives



Young people at two schools in Kenyasi No. 2 in the Asutifi North District of Ghana showed their fellow citizens how to stay safe from COVID-19 during the global pandemic

of 2020. They were featured in a video promoting handwashing nationally and internationally, which was shown on websites and also promoted on Twitter. The students did not know at the time when they were being filmed that they were going to become role models. They were simply demonstrating the good practice that had become normal in their schools. But the video was released by the National Development Planning Commission on 2 April 2020 at the start of the COVID-19 outbreak¹ as an example to the population, showing how to protect themselves from infection.

The young people are students at the District Assembly Girls Model Basic School in Kenyasi No. 2 and the Methodist Basic School next door. Both schools suffered



Solar powered mechanised borehole in Kenyasi No. 2

for many years from lack of safe water on the premises—until a borehole began supplying the schools and their local community in January 2020 as part of the ANAM initiative in Asutifi North to achieve SDG 6 by 2030.

World Vision Ghana, one of the ANAM partners began drilling in June 2019 and by 19 December had completed a 60-metre solar powered mechanised borehole. The water is pumped into a 7,000 litre tank which supplies four standpipes in the school premises and one in the community. When the students at both schools arrived in January 2020 they found handwashing stations and clean drinking water ready for the new term.

Faustina Annan, Head Teacher of District Assembly Girls Model Basic School, said that the new supply had made it easier for the young people to attend school and to learn. "Years back we had this water problem whereby children had to go down to a stream about 500 metres from the school to get water for washing hands and even for drinking. Another alternative was the children had to carry water from their home to school in buckets. Children with homes far from school had to carry water long distances. They got to school very late and wet because the water spilled on them and soaked their books as well. We recorded a high level of absenteeism."

The new water facility has been welcomed by the whole school, the Head Teacher said. "The children were very, very excited and not only the children, but the staff, the PTA executive and the School Management Committee. We now have water throughout the week. Children come to school early as they don't have to look for water. They have peace of mind. Any time they want to drink water, they have water right inside the classroom where we have storage facilities.



Head Teacher, Faustina Annan, Girls Model Basic School, Kenyasi No.2

"Children had to go down to a stream to get water...even for drinking. We recorded high levels of absenteeism."

Faustina Annan, Head Teacher Girls Model Basic School Concentration in class is very high which has helped academic work. Children are now happy to come to school."

At KC Methodist School next door, Assistant Head Teacher Forson Essilfi tells a similar story. "The students sometimes brought water from their homes which was a challenge. We have more boys and they like football. Every "Every break time they went to play and returned to lessons dirty. Now they have water to wash and drink."

Forson Essilfi, Assistant Head Teacher at KC Methodist School

break time they went to play and they didn't have water to wash their hands and returned to lessons dirty. Now they have water to wash and drink as well." The number of students enrolled in the school had increased by 15 after water was provided.

The water system is part of District-wide efforts to ensure that schools, health centres and communities have access to safe water for drinking and basic hygiene. The borehole supplies four handwashing stations and four standpipes within school premises and one pay-as-you-fetch community standpipe with a vendor and water kiosk. AQtap water dispenser is being piloted to ensure efficient revenue generation and that community members will in the future be able to access water at any time.



Abiba Opoku—no longer getting wet.

Water and Sanitation Management Teams have been trained to manage the facility and money generated is paid into a bank account to maintain the system if problems develop. The solar powered system means that the schools do not face electricity bills and will have access to water the whole year round.

Abiba Opoku, aged 16, a Form 3 student at the Asutifi North District Assembly Girls Model School remembers how things were before they had water on tap. "I would go to the stream and bring water back to school. Our uniforms would get soaking wet. Now the water is right here, so there is no problem for us."

Quality checks to confirm that water is safe to drink



Janet Atebiya, water quality manager for Ghana Water Company, soaks a piece of wadding in ethanol, lights it, and holds the steady at the mouth of a water pump to purify the metal. With assistant manager Andrew Sadique she collects a sample of the water in a bottle to take back to the laboratory, where they will test the water for microbial analysis—specifically for E. coli, one of the most common causes of diarrhoea.

Water points across Ghana are rarely tested at present because of the high costs involved. In Asutifi North a pilot study is under way to conduct a reduced number of smart tests to bring down the cost while providing a reliable guide to the overall quality. Tests are conducted monthly for Ph levels (acidity), conductivity which measures for iron, total dissolved solids and E. coli.

Yachori Bashiru, research assistant for Aquaya Institute, says most water points cannot afford to run a full range of tests. "The primary risk to human health is E. coli so that is why we take that into consideration. We will also be looking at iron in the near future. We are hoping that now they have kiosks at the water points they will improve the revenue. Once they are on their feet they will be able to bear the cost and allow the Ghana Water Company to conduct those tests."

Water vendors boost their income by turning kiosks into community shops

Partners in Asutifi North have installed kiosks at water points to improve livelihoods for water vendors, provide shelter from sun and rain, and help to make water systems sustainable. The kiosks are provided by Aquaya Institute, one of the ANAM partners, and have proved very popular with vendors.



Water vendor Doris Bosompimaah sells razor blades to a customer in Panaaba

In Panaaba, Doris Bosompimaah runs the water point with her daughter, opening the pump at 6.00am and again at 2.00pm. About 50 customers a day pay 10 pesewas each for two buckets of water. She also sells useful products including soap and diapers and food such as gari, sugar and peanuts. Doris set up her shop in the kiosk with the help of a GHS 250 starter fund from Aquaya and invested some of her own money to increase the range of products. "I really love the work", she says. "I would like to expand and buy a fridge to sell iced water."

Akosua Nyamekye, vendor at Kenyasi No. 2, cut prices to increase business at her

kiosk. "Although I make just 1 cedi on a whole box of soap, I don't get discouraged and make some savings. When you analyse it, it's better to reduce the price and sell rapidly instead of it sitting on the shelf." She takes home about GHS 40 a week (US\$ 7) which provides extra money to feed her children.

Aquaya Institute research assistant, Yachori Bashiru, led a study to see how best to raise money to maintain or repair new water points. "Vendors complained that they could not spend enough time at the water source because they don't have a place to sit when the sun is scorching or when it is raining. They asked if we could provide something like a kiosk." Aquaya has provided 30 kiosks and will expand if the scheme continues to prove successful. Aquaya also provided seed grants of GHS 250-300 so vendors could stock a wider range of goods. In the pilot study sales rose by 50%.

Paying for water without cash—automated dispenser offers route to 24-hour access



Kenyasi water vendor Akosua Nyamekye demonstrates one of the AQtap water dispensers being trialled in Asutifi North to ensure that people will in future be able to collect water at any time without the system losing revenue. Akosua Nyamekye has been a water vendor for eight years but it is only since the start of 2020 that she has had her own kiosk and an automated dispenser. The system was being piloted by World Vision in 2020, with the intention of registering households and issuing them with payment cards. Eventually, householders will be able to buy credit from the vendor, paying with mobile money through their phones. When the system is fully working, they will be able to collect water outside vendor working hours, by placing their card in the AQtap water dispenser, (also known as an ATM). When there is credit on the card, the right amount of water comes out at the press of a button.

Health centre nurses no longer queue to fetch water for infection control

Vivian Kumah has been lead nurse at the Gambia No. 1 community health planning and service (CHPS) centre for more than four years—and getting clean water has been a challenge for almost the whole of her time in charge.

Two months after she arrived in 2015, the piped supply developed a problem and from that time on nurses had to queue for water at community pumps.

"If you don't have water you can't decontaminate instruments you use on the baby and the mother"

"If you don't have water you can't do the cleaning or decontaminate the instruments you use on people, so we had problems," said Vivian Kumah. "Childbirth without water is not safe because you have to use instruments on the baby and the mother, and decontaminate the instruments before you use them for other people." Pregnant



Vivian Kumah, lead nurse at Gambia No. 1 CHPS

women would arrive at the centre carrying buckets of water or ask relatives to queue at the pump. After giving birth they had to take soiled clothing and linen home.

All that has been transformed. World Vision started drilling in June 2019 and by January 2020 water was flowing. The solar powered system, sponsored by the Conrad N. Hilton Foundation as part of the ANAM initiative, serves the health centre, Gambia Primary School and two community standpipes.

"We are very happy because we don't have problem with water now," says Vivian Kumah. We can do infection prevention control and when you need water you just open the tap."



Akua Osaa, water vendor at Gambia no 1, Asutifi North. Sales at community taps raise money to cover minor repairs and maintenance.

World Vision also mechanised one existing community borehole to ensure that all 1,500 people who live in Gambia No. 1 have easy access to water. Festus Boadi, World Vision WASH officer for sanitation and hygiene, says sustainability is built into the system. "Because it is solar powered we expect that with proper "The system has been made in such a way that each household should be able to connect the water to their house"

maintenance, it should last for a very long time. The water provided is very high yielding capacity and the system has been made in such a way that each household should be able to connect the water to their house."

Daniel Buama, chairman of the Gambia No. 1 water and sanitation management team says the new scheme has brought water into the heart of the community for the first time. "We had two main boreholes on the outskirts of the community so you had to walk a distance and when you get there you would have to pump to get water. Since we got this facility you only need to turn on the knob and you have water to take home." He promises that the community will continue to collect payments and maintain the system. "My team is very active. We make accounts and tell the community how the facility is being managed."

The menace of solid waste and open defecation proves tough to tackle

Asutifi North is making giant strides in providing water services for its citizens—but progress on sanitation is proving much harder and progress is slower. By April 2020, 11 communities in the District had adopted Community-led Total Sanitation and were working towards being declared open defecation free. But this covers only a small proportion of the 64,000 plus people in 149 settlements in the District.

Nana Attakorah Amaniampong, chief of Panaaba village, accepted a challenge from World Vision and the District Authority to transform its sanitation status as a condition for solving its water crisis. The chief was one of the first to construct his own household toilet and by the start of March 2020 almost half the community had completed their toilets. "Awareness on handwashing has been heightened, particularly with the spread of the COVID-19," he said. We have been told about the need for every household to own its toilet, to improve sanitation and deter people from using public toilets. Using your own toilet and practising good hygiene is the way to go. This will prevent contamination even at the water facility."

Festus Boadi, Sanitation Field Officer for World Vision, said communities need to understand how water and sanitation go hand in hand. "The new approach World Vision is adopting in partnership with the District Assembly is when a community needs water they should start practising good sanitation: the new approach is 'no sanitation, no water!" "When a community needs water they should start practising good sanitation: the new approach is 'no sanitation, no water!



Festus Boadi, World Vision Sanitation Field Officer outside a toilet built in Panaaba community, where the chief has inspired progress on sanitation.

James Ata-Era, Asutifi North District Development Planning Officer, agrees. "If households within the community are able to meet a certain number of basic household latrines then we will come to your community to serve you with water.

"Hygiene is about attitudes and it will take time to yield the results that we need. But we are very optimistic that we will be able to achieve that."

Toilets are not the only issue and the District is looking for partners to help them to scale up their efforts for both solid and liquid waste. "In terms of water we have done tremendously well, but the challenges have to do with the sanitation component," Ata-Era says. "We are calling on partners, especially in the sanitation



Memuna Issah and Atta Ntiamoah outside the toilet and bathroom they constructed in Panaaba.

area to come and help us and assist us with the technology. All the partners seem to be working on water. All the investment is on water. The sanitation component is only being handled by the Assembly and World Vision. Looking at competing demands from the same Assembly meagre budget we have challenges."



"In terms of water we have done tremendously well...the challenges have to do with sanitation. All the investment is on water. The sanitation component is only being handled by the Assembly and World Vision."

> James Ata-Era, District Development Planning Officer

Good practice for WASH in Ghana: Meeting the targets for water, sanitation and hygiene by 2030



Girls pick litter at Asutifi North District Assembly Girls Model Basic School in Kenyasi No. 2, but too few communities take responsibility for their own waste, says the District Chief Executive.

The District needs engineered sites for landfill and to deal with liquid waste, especially as more household toilets are built. The overall cost of meeting sanitation targets by 2030 will be about US\$ 11.23 million and little of that has so far been pledged.

District Chief Executive, Anthony Mensah, says they must do more to improve solid waste management, rather than relying only on the national agreement with Zoom Lion which is not delivering to the satisfaction of districts. This also requires a change of attitudes in the community to return to some of the old ways of self-reliance.

"The behaviour of our people before was that if you make refuse it is your duty to make sure that you take it to a place where it should go. But the attitude now is, 'Let's wait for the Government to come and deal with that'. Part of our strategy will be sensitisation of the people to take very good care of the waste that they have generated." "Part of our strategy will be sensitisation of the people to take very good care of the waste that they have generated."

> The Hon. Anthony Mensah District Chief Executive

This is not something that the District Assembly can achieve alone. A consortium of civil society groups, the Asutifi North CSOs Network, is working with the Assembly to influence opinion and attitudes in communities.

Abdallah Salifu director of the Firm Foundation and Environment of Ghana sees their main role as changing mindsets and behaviours, with a focus on water quality and environmental issues. "Some people think that it is always Government that has to come out and repair water when it breaks down. When they throw rubbish people think we have employed people to work on waste, so they can throw waste anyhow.



"We have people who use agrochemicals in farming and don't know the proper ways to dispose of chemical containers so it does not contaminate water and spread pollution."

Abdallah Salifu Asutifi North CSOs Network

Abdallah Salifu—going house to house to change attitudes and behaviour.

"We have people who use agrochemicals in farming and don't even know the proper ways of disposing of chemical containers or how to apply the chemicals

in the right quantities so that it does not contaminate water and spread pollution around. These are negative behaviours that do not speak well for WASH activities. So we still need to come closer to them so that all these kinds of behaviours will stop.

"It is difficult mobilising people in the community. We have a lot of ways of communicating with the people. We can go on radio programmes and also we can go to the hinterland—we will call them in informal gatherings to talk to them. At other times we go house to house and talk to them because that has been very effective."

Good practice for WASH in Ghana: Meeting the targets for water, sanitation and hygiene by 2030



Joel Asubonteng, Asutifi North WASH desk officer, left, speaks to listeners at Radio Anapua with colleagues Dawuda Hafiz representing Kenyasi civil society organisations (centre) and Yachori Bashiru, from Aquaya Institute (right). Presenter Pious Amansoro can be seen through the glass.

Keeping listeners up to date on WASH progress and action taken on complaints

Presenter Pious Amansoro greets his listeners and invites his guests seated at microphones on the other side of the studio glass to introduce themselves. This is a monthly opportunity Radio Anapua FM gives WASH experts to speak directly to the people of Asutifi North about their water supply and what is being done to improve it.

Joel Asubonteng, Asutifi North District Assembly WASH desk officer, reminds listeners to bring any complaints to him. A direct line to his desk at the Assembly receives and logs complaints and Joel ensures they are acted on. This monthly programme on Radio Anapua is one of his main methods of reporting back to the public about what progress is being made. He reports that as a result of earlier calls the District Assembly and World Vision are working towards providing water to Kwanfifin community. World Vision was also travelling to Yaabrefo to examine a broken borehole.





Joel Asubonteng, District Assembly WASH Desk Officer

Yachori Bashiru, Aquaya Institute

Today's programme (March 2020) focuses on water quality testing. Yachori Bashiru, research assistant from Aquaya Institute, one of the partners in the Asutifi ANAM WASH initiative, tells listeners they have arranged for the Ghana Water Company to test ten water systems each month. He explains that you cannot tell by looking at water whether it carries infectious pathogens and that by law systems in Ghana should be regularly tested. "In Africa we don't do much about the testing of our water systems, hence most top ten sicknesses in our hospitals are water related." Yachori Bashiru, Aquaya Institute

Dawuda Hafiz,

Asutifi North CSOs Network

"When you take Africa, we don't do much about the testing of our water systems, hence most top ten sicknesses in our hospitals are water related, including cholera and diarrhoea. There is a need to undertake water quality testing to determine how good or bad the water is for use. Then we can decide what measures to put in place for treatment."

Dawuda Hafiz, representing civil society organisations in the Kenyasi area, talks about the need to educate the public about the importance of good water and sanitation and the aim of the ANAM initiative to reaching 84,000 people with access to good drinking water by the end of 2030. "The provision of water and the water quality tests as well as the need for practising good sanitation, all reduce the risks of diseases."

When presenter Pious Amansoro signs off, he promises the listeners that – God willing - Joel and colleagues will be back for another WASH special next month.



National Development Planning Commission in conjunction with IRC Ghana

