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IMPROVING SUSTAINABLE WATER ACCESS IN RURAL COMMUNITIES IN GUINEA

A report prepared on Year 1 of Water for Guinea

APRIL 2020

Summary of 2019 Results

- 43,078 people in N'Zérékoré and Labé have gained access to sustainable, safe drinking water through the construction of 40 manually drilled boreholes and 5 solar powered water systems retrofitted onto existing boreholes.
- 10 additional manually drilled boreholes are currently under construction.
- 43 water committees were established and trained to maintain their water points and solar powered water systems.
- 27,978 rural community members (including 16,155 women) were empowered to promote good hygiene practices in their communities.
- The local authorities in N'Zérékoré are engaged with their communities to better manage water facilities in a sustainable manner.
- Social mobilization activities were carried out in all targeted communities to ensure the sustainability of the results achieved; municipal authorities actively participated in all activities, which they also integrated into the annual investment plans of their municipalities.
- Hand pumps for the project are now being manufactured by local Guinean enterprises.
- Local municipalities are now receiving direct payments for project implementation to further improve local ownership of the works related to the project.

Overview

Access to safe drinking water is among the basic rights to which every human is entitled. To make sure every child can realize this right, UNICEF and its partners are engaged in improving access to safe, sustainable water to vulnerable communities in Guinea. Currently, only approximately 67 percent of Guinean households have access to an improved water source. At the current rate of progress, Guinea is not expected to meet the Sustainable Development Goal (SDG) of achieving universal access to sustainable drinking water services by 2030.

According to a 2016 UNICEF report, the regions that are most in need of improving household drinking water are N'Zérékoré and Labé, where 75 percent of homes do not have drinking water. In these two regions, it is girls – especially those over 15 years old – who are mainly tasked with fetching their families' drinking water, impeding their ability to go to school and potentially putting them in harm's way during the long journey, sometimes taken multiple times each day.

UNICEF in Action

UNICEF uses manual drilling technology in Guinea to reduce the cost of water points in hard-to-reach locations and to build expertise in their maintenance within communities. Based on the success of the initial pilot project in 122 rural Guinean villages (2014-2016), 83,677 people directly benefitted from gaining a safe and sustainable supply of water. With leveraged funds from partners such as the European Union and the Netherlands, twenty additional boreholes were drilled, bringing the total number of project beneficiaries from the pilot rises to 120,178. In addition, the Government of Guinea has adopted UNICEF's process for professionalizing manual drilling, and developed a hydrogeological map to outline areas suitable for manual drilling.

The core of UNICEF's approach to this project has been to build the skills of local artisans and private sector capacity for manual drilling by providing the tools and training required to meet the demand for safe water beyond donor assistance. UNICEF is committed to helping meet the SDGs, including SDG 6 that seeks to ensure safe, sustainable water and sanitation access for the most vulnerable rural communities. To this end, manual drilling has expanded in Guinea and has been combined with solar-powered water pumping systems, which are an upgrade from previously used hand pumps. Solar-powered water pumps feed pipe systems and water towers, promoting resilience in the water supply, even during

times of drought. And unlike their diesel-powered counterparts, solar powered pumps generate no emissions and they break down far less often than diesel-powered or hand pumps, with a life span of approximately 30 years. Solar-powered systems can also be used to reach water sources of greater depth than can be reached by hand pumps, have no operating costs, and require less effort to operate. In addition, the solar panels powering the water pumps can also be used to support the provision of electricity to schools and health centers, or to charge cell phones.

UNICEF is working toward three specific objectives during Phase 2 of this project (2019 – 2022) in N'Zérékoré and Labé:

- Scaling up access to safe water for rural communities/villages through low cost water supply technology options;
- Empowering rural communities to adopt good hygiene practices; and
- Strengthening the community-based management of water facilities and water supply infrastructure.

Phase 2 covers 34 rural municipalities in the regions of N'Zérékoré and Labé over four years, and aims to benefit at least 210,148 people. This number includes 20 municipalities in which existing boreholes will be retrofitted with solar powered pumping and water systems and at least 167 villages where up to 200 boreholes will be drilled.[1]

Supporting activities to reach these goals over four years include:

- Engaging the Small and Medium Enterprises (SMEs) in N'Zérékoré equipped and trained during Phase 1 to execute the manual drilling in N'Zérékoré in Phase 2 under the technical supervision of the National Water Point Management Service (SNAPE).
- For the new areas of intervention in Labé region, UNICEF will support the selection of SMEs to construct the manually drilled boreholes under the technical supervision of SNAPE, as well as support water quality monitoring and surveillance.
- Protection measures will be taken to ensure the quality of construction, water quality monitoring and surveillance, such as the creation of a water safety plan that local communities will use to maintain water quality, including through the disinfection of water points (with the support of municipal water technicians).
- For regular maintenance of water points, two local pump minders (also called mechanics) will be trained and equipped with tools in each municipality.
- A water committee will be established in each village and trained on the operation and maintenance of water facilities, water safety (storage and utilization) and promoting behavior change on environmental and climate change issues, such as the contamination of water reserves and a reduction in the quantity of water.[2] Water committees will oversee water system management (for boreholes with hand pumps and solar powered water systems), and will collect funds from water users for pump and system maintenance. Committees will work under the guidance of the municipal water officer during and after project activities take place.
- Community awareness campaigns will be carried out in villages throughout the various phases of the project, engaging approximately 330,930 people (120,782 from Phase 1 and 210,148 from Phase 2) from core social groups (community and religious leaders, women and youth groups), encouraging their participation in project activities. Social mobilization will be articulated around three main actions:
    1. Organizing an official launch of the project to present the expected results and request the community's full support;
    2. Working with community leaders and building their accountability; and

1 Thirty-three of the villages to benefit from this project have yet to be determined – UNICEF will select the final 33 villages based on a variety of data, including the results of the feasibility study in Labe.

2 Floods related to climate change can cause contamination of water supplies in several ways, including by excreta runoff from latrines, other contaminants washing into otherwise safe water supplies and seawater intrusion.

3. Working with existing youth groups to ensure their active engagement in the project.

- SNAPE will oversee the social and community mobilization and hygiene promotion components of Phase 2, preparing local social mobilizers to better organize people in their villages and train them for the maintenance of their water systems and facilities. Four technicians from the regional offices of SNAPE (two from N'Zérékoré and two from Labé) will be trained on community mobilization techniques and the Information, Education and Communication approach (IEC), which is a community engagement model that stresses community ownership water facility maintenance, water safety (storage and utilization) and behavior change. Addressing environmental and climate change issues such as the contamination of water reserves and water scarcity are key components of the IEC approach.
- UNICEF will support SNAPE in conducting knowledge management activities, updating the mapping of existing manual boreholes and advocating for additional funding to scale up manual drilling in Guinea.
- UNICEF will support the design and manufacture of local pumps with a private Guinean company.

GEOPHYSICAL STUDIES

While UNICEF plans to support geophysical studies for new boreholes in Labé, these studies were not planned for N'Zérékoré, since the information about the water table and other geophysical characteristics of the region were readily available and showed the region to be favorable for direct drilling. However, UNICEF did encounter some drilling challenges, particularly in the rural municipality of Bolodou, where only 9 of 33 boreholes drilled were positives. UNICEF was prepared for the negative drilling results encountered in Labé, as the groundwater there is harder to access than in N'Zérékoré, and a certain percentage of drillings are expected to be negative under any circumstances.

UNICEF worked with the following partners to select villages in which the project would engage in manual drilling for establishing new boreholes: SNAPE; the Government of Guinea's technical services in charge of village sanitation (IREEF); local communities that met needs-based criteria; and municipalities and administrative authorities. Local municipal councils have all endorsed these manual drilling activities in their communities.

UNICEF FIELD OFFICE IN LABÉ

As part of the scaling up of the manual drilling program in Phase 2, UNICEF began work on bringing sustainable, safe water to a second rural area of Guinea: Labé. There is a WASH officer in the Labé field office who is the focal point for this project in the region and who is responsible for coordinating with local government and national government WASH partners. In 2019, the WASH officer in the Labé field office supported the collection of data on existing water points; supported the selection of boreholes/communities in which to construct two solar powered water systems; contributed to feasibility studies; monitored the construction of water systems; and engaged in community mobilization activities.

Left: Manual drilling in Damama, by the SME EEMC. Right: Manual borehole with local made pump by FAPEL in Banko.

The Impact of Your Support

Increasing access to safe water for rural communities through low-cost water supply technologies.

- 16,248 people gained access to safe drinking water through the construction of 40 manual boreholes in 38 villages in N'Zérékoré;
- 38 water committees were established (with 240 members, including 160 women) and trained to manage their water points in sustainable manner.

In 2019, 120 manual drilling sites were selected in N'Zérékoré (in the municipalities of Gbackedou, Gbessoba and Bolodou) to create 50 viable boreholes.[3] To maximize the chances of success, hydrogeologists pre-selected at least three sites in each village to ensure that at least one borehole would be positive. By the end of the calendar year, 40 viable boreholes were established in 38 communities, including two communities where two viable boreholes were established.

Through a competitive process that carried over from Phase 1, three qualified SMEs (EPICO, EEMC and SOUMCOPRESS) were awarded contracts for the construction of the 40 manually drilled boreholes in 2019. Financial resources were then transferred to the three target municipalities to enable them to sign contracts with the SMEs for the construction of the boreholes. This represents the first time that UNICEF has provided funding directly to municipality governments in Guinea, which is part of a broader effort to support decentralization, improve efficiency and build the capacity of local actors.

Project municipalities have incorporated this project and other UNICEF-supported activities into their annual investment plans, and have been encouraged to engage additional donors. Because of these efforts, the municipality of Gbackedou was able to engage a local development agency, ANAFIC, for the construction of two additional manually drilled boreholes.

Quality control for the construction work was done by UNICEF and the local SNAPE team to ensure the proper construction of boreholes in accordance with national standards. Water from all 40 boreholes has been tested by the SNAPE laboratory, which confirmed that the water is safe for drinking (i.e., its bacteriological, physical and chemical quality are in conformity with WHO standards).

In addition to the 40 completed and viable boreholes, the construction process for drilling 10 additional boreholes was started in 2019 so that the engagement of communities and SMEs could be sustained.

Construction of 5 solar water powered systems on retrofitted boreholes.

- 26,830 people are benefitting from the installation of 5 solar powered water systems on previously drilled single water point boreholes in Bolodou, Fangamadou, Niossomoridou, Donghel Sigon and Fello Koundouwa.
- 5 water committees – 1 for each solar powered water system – made up of 30 members (including 20 women) have been trained for the sustainable management of these water systems in each beneficiary site.

A technical feasibility study was carried out by SNAPE and UNICEF in five selected localities to assess the capacity of existing boreholes and to design the water delivery and distribution network necessary to serve the populations. The construction works were executed by five local SMEs (EDICO, EOCO & FILS, NIMBA COOPERATIVE; IDEAL BATI, and HALIMA CONSTRUCTION) selected through a competitive process.

[3] While 127 sites were to be selected in 2019 as per the proposal, the country office was able to establish 40 working boreholes through the identification of just 120 drilling sites, meaning UNICEF was able to find 40 successful drilling sites from fewer selected sites than planned.

SNAPE supervised the construction of the solar powered water systems, including the conducting of technical studies, the selection of SMEs and the technical control of construction works. UNICEF coordinated the multiple actors during the implementation phases to ensure the quality of the work and that all UNICEF procedures were met. All five solar powered water systems have been connected to local health care facilities, and three have also been connected to schools. The two solar powered systems not connected to schools were not connected because the schools were too far from the network; however, they will be connected in the future if additional resources can be procured.

Top left: Water tank (15m3) installed in Niossomoridou. Top right: Water fountain with three water points in Niossomoridou. Above, left: PME team installs a solar pump on an existing borehole. Above, right: Photovoltaic panels (1.6 kw) used to power the solar pump.

Social mobilization: empowering rural communities to adopt good hygiene practices and to sustainably improve the management of water facilities.

- All local authorities within the project areas in N'Zérékoré were aware of the project and its objectives, and committed to be actively involved in activities.
- 27,978 people, including 16,155 women, became aware of the importance of good hygiene practices, including hand washing with soap.
- 180 women's groups and 216 youth associations were mobilized to participate in activities for the sustainable management of water systems.

Community dialogue in Banie, N'Zérékoré.

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UNICEF led a series of social mobilization activities in project communities with a variety of stakeholders, including: government services involved in the water sector; local administrative authorities and elected officials; four NGOs; women's groups; and youth associations. In N'Zérékoré, an official launch ceremony for the project was organized in October 2019 in the municipality of Gbessoba that was attended by 1,000 people, including people from most of the villages benefitting from this project. All regional authorities actively participated in the event, along with the local media, SMEs, and NGOs. The launch event provided an opportunity to present the expected results of the project and discuss community participation at all stages of implementation.

In total, 58 social mobilization agents involved in Phase 1 received a refresher training session. This training galvanized community leaders, who organized community dialogues to raise awareness and mobilize local elected representatives, including ten women, to work with SNAPE as part of the national policy of water service in Guinea. NGOs highlighted the importance of enabling communities to buy spare parts for water pumps for the maintenance of water points, and to get a collective commitment to sell water with a minimum tariff in order to mobilize funds for the maintenance of the pumps.

The roles and responsibilities of women and young people were stressed in the management and maintenance of water systems. Community mobilization activities attracted 27,978 people, including 16,155 women with the participation of 180 women's groups. Together, with 216 youth associations, these groups committed to promoting hygiene (including hand washing) in households and around water points.

Capacity building for municipal water technicians

Training of local pump technicians in Gbackedou, FAPEL.

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- Training for six pump mechanics/minders to service and maintain FAPEL pumps in communities (two mechanics per municipality); and
- Equipping the three project rural municipalities with toolboxes for the maintenance of FAPEL pumps.

In 2019, UNICEF worked with SNAPE to train 29 rural municipal water officers on the national water utility strategy. In addition, UNICEF worked in partnership with SNAPE and the local SME, FAPEL, to train 58 technicians on the maintenance of the locally produced SONNA 1 hand pump. FAPEL provided each of the three municipalities with a toolbox at the end of this training to support the local maintenance of FAPEL pumps, and a FAPEL pump spare parts sales shop will be opening soon in N'Zérékoré. Until that shop opens, FAPEL has provided a stock of spare parts to the N'Zérékoré SNAPE regional office.

Small and medium enterprises (SME)

As part of Phase 1, UNICEF supported the training of four local SMEs in N'Zérékoré in manual drilling techniques, creating 35 skilled jobs (9 with SOUMCOPRESS; 7 with KEP; 12 with EPICO; and 7 with EEMC). Three of these SMEs – SOUMCOPRES, EEM, and EPICO – were engaged in 2019 to manually drill boreholes in N'Zérékoré during the first year of Phase 2. SNAPE and UNICEF provided technical support to these three SMEs prior to drilling to ensure their teams were up to date with their training.

To complete the construction works in Phase 2, UNICEF and SNAPE worked with local municipalities to contract additional SMEs: five for solar powered water systems, and one for pump manufacturing (see table below). UNICEF worked closely with SNAPE on the supervision and technical control of the engineering and construction works of the 40 manually drilled boreholes and five solar powered water supply systems installed in 2019. In 2020, additional action will be taken by engaging all municipal councils, SNAPE and other relevant actors to better prepare them for managing the water systems and boreholes, and sustaining gains made during and after the project.

The table below shows that a total of 322 SME workers were positively impacted by this project. With an average household size of 6 persons, it can be assumed that the lives of approximately 1,900 SME workers and their family members have been impacted by the project.

SMEs	Main activities			Persons employed		
	Local pump manufacturer	Manual driller	Solar water constructor	Qualified staff *	Workers	Total
EDICO			X	3	54	57
EOCO & FILS			X	2	30	32
SOUMCOPRES		X		3	22	25
EEM		X		2	8	10
EPICO		X		2	8	10
NIMBA COOPERATIVE			X	3	67	70
FAPEL Guinee	X			45	33	78
IDEAL BATI			X	6	15	21
HALIMA CONSTRUCTION			X	4	15	19
Total	**1**	**3**	**5**	**70**	**252**	**322**

* Of the 70 qualified staff in the chart above, 3 are women (1 woman each was trained at EOCO & FILS, SOUMCOPRES and HALIMA CONSTRUCTION).

Establishing and training water committees

- 43 water committees were established and trained on the management and maintenance of their water points and solar powered water systems.

For the sustainable management of water points, a total of 43 water management committees (composed of 246 members, including 164 women) were established and trained by SNAPE – one per village with a new manually drilled borehole (38) and one per village with a new solar powered water system on an existing borehole (5). These water management committees were trained to work with municipal councils to sustain the operational management of water points and solar pumping systems. The management committees are responsible for all new and existing water points in their villages, and are comprised of a president; secretary ; treasurer; hygienist; village pump repairer; and water seller.

Water management committee training sessions focused on the following topics:

- Objectives of the national water service strategy in rural and peri-urban areas;
- The actors of the public water service;
- The role of maintenance operations of water points;
- The relationship between the water committee and the municipality;
- Hygiene measures for the water chain (drawing, transport, storage);
- Establishing a small fee for drawing water and managing those funds; and
- Water-related diseases and communication routes and barriers.

Support the design and manufacture of a local pump with a private Guinean promoter

- The locally produced SONNA 1 pump was certified by the government to be used in rural areas of Guinea.
- 40 SONNA 1 pumps were manufactured and installed on the manually drilled boreholes in N'Zérékoré.
- 58 local pump mechanics were trained on the installation and regular maintenance of the locally produced FAPEL pump. These mechanics participated in the installation of 40 pumps in the project sites in N'Zérékoré.

Keeping with the project's strategy to build local SMEs and economies, SNAPE and UNICEF identified a local Guinean pump manufacturer for the project – the SME, FAPEL – based in the city of Labé. This SME is owned by a Guinean research technician who developed his hand pump design in 2002. In 2019, UNICEF conducted a site visit to FAPEL to observe the hand pump manufacturing process. FAPEL is committed to maintaining a reliable supply chain for pump spare parts and to training local pump mechanics for the sustainable operation and maintenance of their pumps.

In order to improve the functionality, accessibility and durability of the pumps, SNAPE provided FAPEL with some key recommendations for their improvement, including: improving the quality of pump materials (stainless steel threaded rod and galvanized pipe); increasing the flow rate to 2 m3/h; and enabling the self-priming of the pump. To ensure the pump's sustainability in remote rural areas, SNAPE also requested that FAPEL increase the availability of spare parts locally at low cost, and establish quality after-sales services.

While FAPEL has its manufacturing and assembly workshops in Labé, partnering with UNICEF on this project offers FAPEL a great opportunity to promote their locally manufactured pump to other water projects in Guinea. FAPEL has already started strengthening its supply chain for spare parts and training local repair personnel to maintain their pumps in N'Zérékoré and Labé.

Establish an accountability framework with municipalities

During Phase 1, UNICEF and SNAPE created an accountability mechanism with municipalities for the maintenance, sustainability and proper usage of the boreholes and water systems. In year one of Phase 2, the dialogue and supervision of the new municipalities has been strengthened, with the approach focusing on the implementation of the national strategy for public water service in Guinea. Part of this strengthening included social mobilization activities and communication around the national public water service strategy in 29 municipal councils. Through this framework, the roles and responsibilities of municipal WASH officers overseeing water point management committees were clarified, helping them support committees as they oversee the management and sustainability of drinking water services in their communities.

In 2020, UNICEF will work with SNAPE to further strengthen the accountability of municipalities for sustainably maintaining their boreholes and water points by supporting all 170 water point committees that have been established since Phase 1 began in 2014 (48 in 2019 and 122 from Phase 1). In addition, UNICEF and SNAPE will strengthen their advocacy with rural municipalities for the effective management of those responsible for the water pumps, further strengthening the monitoring of water activities in project communities.

COORDINATION AND PARTNERSHIP

- UNICEF and its partners have established a partnership framework that has given a key role to all **municipalities** covered by the project. Some of this coordination and partnership included: involving mayors and their general secretaries in the selection of borehole sites, the tender process for hiring qualified SMEs, the construction works, and in social mobilization activities; municipalities supporting villages in their work to provide regular maintenance of their water systems during all key project stages; and establishing a partnership between each municipality and SNAPE to enable each municipal council to remain involved and play its role during and after the completion of the project.
- **SNAPE** has been UNICEF's main partner throughout both phases of the project. UNICEF has coordinated with SNAPE and a variety of technical matters, including validating manual drilling sites; certifying the FAPEL pump; conducting the technical study of solar powered water systems; and supporting the selection of qualified SMEs. UNICEF participated in several joint missions with SNAPE teams on supervision and quality control of the construction works, as well as on the social mobilization activities carried out by NGOs.
- **NGOs** have been the leaders of social mobilization activities in project communities. UNICEF played a convening role, holding technical orientation meetings with regional government departments and NGOs to agree on the objectives of social mobilization, harmonize collection tools, and validate the key messages to be conveyed. UNICEF also conducted several field visits with SNAPE and the other partners for the regular monitoring of activities and to ensure the effective involvement of communities and municipal actors. This dynamic was reinforced with the creation of a WhatsApp group for the real-time monitoring and sharing of knowledge and experiences with all the partners involved.
- Building on the success in Phase 1, UNICEF worked in Phase 2 to establish partnerships with a total of nine **SMEs** to conduct construction works, creating local jobs. The SMEs were selected after a comprehensive procurement process through a call for tenders: eight SMEs carried out work on 40 manual boreholes in the N'Zérékoré region and 5 solar water supply systems in the N'Zérékoré (3) and Labé (2) regions. The SMEs have played an essential role in the project, and their collaboration has facilitated the coordination of activities with SNAPE. In 2019, the project has already made an impact on local economies through the creation of approximately 322 jobs, benefitting approximately 1,922 members of their respective families.
- The partnership between the **PRACTICA Foundation** and UNICEF started in 2011 with the introduction of manual drilling technology in Guinea. Since then, PRACTICA and UNICEF have continued to work together on professionalizing the local manual drilling sector and scaling up the practice in suitable areas. In the field, PRACTICA has provided ongoing technical assistance to the various manual drilling operators and SNAPE, including through a professional training center and welding workshops. Previous training provided to SMEs by PRACTICA during Phase 1 has considerably improved the operational and technical capacities of the SMEs involved in this project. As part of Phase 2, a new technical assistance contract between UNICEF and PRACTICA was signed in 2019, which began supporting SNAPE technicians in January 2020 in the analysis of hydrological profiles and feasibility studies.

Expense Report

Activities	Unit Cost	Qty	Total Cost, 4 Years	Year 1 Budget		Year 1 Actual Expenses
				Qty	Cost	
Water supply systems						
Drilling of manual boreholes equipped with hand pumps*	$5,000	160	$800,000	40	$200,000	$252,867^
Drilling of manual boreholes equipped with solar powered system	$25,000	40	$1,000,000	--	--	--
Retrofitting existing boreholes with solar powered system and water distribution network	$50,000	20	$1,000,000	5	$250,000	$233,479
Feasibility studies and technical assessment	$20,000	1	$20,000	1	$20,000	--^^
Subtotal			***$2,820,000***		***$470,000***	***$486,346***
Community empowerment						
Social mobilization in villages	$200	220	$44,000	45	$9,000	$18,979^^^
Establishment and training of water committees	$300	220	$66,000	45	$13,500	$10,650
Subtotal			***$110,000***		***$22,500***	***$29,629***
Capacity building						
Training SNAPE agents on community mobilization and geophysical drilling site selection	$1,000	6	$6,000	6	$6,000	--**
Training municipal water officer for community guidance, works supervision and monitoring	$1,000	34	$34,000	10	$10,000	--***
Support the design and manufacturing of a local pump with a private promoter	$5,000	1	$5,000		--	--
Training local pump minders and maintenance tools	$1,000	34	$34,000	10	$10,000	$15,238
Geophysical kits for site selection and training	$10,000	2	$20,000	2	$20,000	--
Subtotal			***$99,000***		***$46,000***	***$15,238***
Project monitoring and evaluation						
Coordination and monitoring cost/year	$3,750	4	$15,000	1	$3,750	$5,590
Evaluation cost (mid-term and final)	$20,000	2	$40,000		--	--
Subtotal			***$55,000***		***$3,750***	***$5,590***
Technical assistance						
2 national WASH staff (N'Zérékoré and Labé) per month	$10,000	48	$480,000	12	$120,000	$120,000
International P3 staff (70% for 1 year)	$135,000	1	$135,000	1	$135,000	$135,000
Visibility costs	$3,000	4	$12,000	1	$3,000	--
Operation support cost	$15,000	4	$60,000	1	$15,000	--
Subtotal			***$687,000***		***$273,000***	***$255,000***
Total program cost			**$3,771,000**		**$815,250**	**$791,803**
UNICEF/UUSA Administrative costs			$216,281		$21,573	$29,866^^^^
TOTAL			**$3,987,281**		**$836,823**	**$821,669**

^ This cost includes the cost of the drilling of the 10 additional boreholes, which are currently being fit with hand pumps. Regarding the increase in average cost of manual borehole drilling from Phase 1 to the first year of Phase 2: the increase in cost can be attributed to several factors, including inflation and increased fuel costs (up 30% from 2013).
^^ A feasibility study was not needed for year one because one had already been done for N'Zérékoré; this expense will be incurred in year two in Labé, where a feasibility study is needed to determine the areas with the greatest potential of drilling success.
^^^ Social mobilization interventions in villages in 2019 were paid for by the UNICEF Guinea Country Office. These funds are not counted in administrative cost calculations at the end of the expense report chart.
^^^^As with social mobilization expenses paid for by the UNICEF Guinea Country Office, drilling and staff expenses paid directly by the AJA Charitable Trust were not counted in administrative cost calculations.

*The cost of a locally produced hand pump is approximately $1,500.
**These trainings were scheduled for December 2019, but at that time SNAPE agents were unavailable. As a result, the SNAPE agent training had been postponed to the first quarter of 2020, but because of the COVID-19 outbreak and response, the training has been further delayed until April 2020, when the situation will hopefully be improved.
***While on-the job coaching was done during the construction of water systems, the proper training of municipal water officers has been postponed to the first quarter of 2020. This training may be further delayed depending on SNAPE capacity, the political situation in-country and COVID-19 response.

The Way Forward

The following activities are planned for year two of phase 2, 2020:

- Conduct a feasibility study in Labé for manual drilling – quarter 1;
- Train SNAPE agents with technical support from PRACTICA – quarter 1;
- Conduct a technical study of solar powered water systems and borehole site selection in both target provinces – quarter 1;
- Initiative the bidding process for SME selection in both target provinces – quarter 1;
- Construct 40 manually drilled boreholes (20 in Labé and 30 in N'Zérékoré) – quarters 2 and 3;
- Construct 5 solar powered water systems on existing boreholes (3 in Labé and 2 in N'Zérékoré) – quarters 2 and 3;
- Retrofit solar powered water systems on 20 manually drilled boreholes – quarters 2 and 3;
- Establish and train water committees – quarters 1, 2 and 3; and
- Conduct social mobilization activities for sustainability – quarters 2, 3 and 4.

UNICEF would like to thank you for your generous ongoing support of this WASH project in Guinea. Because of your support like yours, in 2019 an additional 43,078 people in rural Guinea gained access to a safe and sustainable supply of water, bringing the total number of people benefitting from your support since 2014 to 163,860. On behalf of the children of Guinea, thank you!

The United Nations Children's Fund (UNICEF) works in more than 190 countries and territories to put children first. UNICEF has helped save more children's lives than any other humanitarian organization by providing health care and immunizations, safe water and sanitation, nutrition, education, emergency relief and more. UNICEF USA supports UNICEF's work through fundraising, advocacy and education in the United States. Together, we are working toward the day when no children die from preventable causes and every child has a safe and healthy childhood. For more information, visit unicefusa.org.

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Annex I: Human Interest Stories

Launch of the second phase of the manual drilling program in Gbessoba

Vincent Yaradouno, UNICEF WASH Officer

The ceremony to open Phase 2 of the WASH project in Guinea took place in Gbessoba, on October 10, 2019

The rural commune of Gbessoba was established in 1963 in the district of Sinko through government decentralization. Gbessoba is located 96 km from the capital of the Prefecture of Beyla, with an estimated population of 52,440 inhabitants. It is limited to the east by Côte d'Ivoire, to the west by the rural communes of Gbakédou and Sinko, to the north by the rural commune of Koumandou and to the south by that of Dialaguéréla.

Siaka Condé, the Mayor of Gbèssoba, said: "Water is life. Whoever gives you water wants you to survive." He also reaffirmed the commitment of his community to maintain the water points that will be drilled there as part of the project.

Four major areas of intervention have been defined to support the manual drilling project: strengthening implementation capacities; professionalization of SMEs for manual drilling; advocacy at level of companies in the sector; and information management and monitoring the sustainability of results. UNICEF will support the capacity building of SMEs, including through training and workshops specializing in the manufacture of drilling tanks.

At the launch event, UNICEF WASH Officer Vincent Yaradouno, representing the UNICEF N'Zérékoré Office Manager, reiterated UNICEF's commitment to support the community for better access to drinking water. "The choice of Gbessoba is not trivial, because in 2015, we launched a Community-Led Total Sanitation initiative. Because of this initiative, UNICEF is now working on manually drilling boreholes in this municipality. The sustainability of this project will depend on you. Manual drilling is an inexpensive technique to provide communities with access to water."

A pilot project funded by AJA Foundation was carried out between 2014-2017 by UNICEF, SNAPE and PRACTICA. Because of that success, these partners will continue manually drilling boreholes in Guinea. Mory Dioubaté, Regional Director of SNAPE, said, “The pilot program was the result of a partnership between the technical services of the State, regional NGOs and United Nations institutions. Since the testing of these boreholes, the technical capacities of manual drilling companies have been strengthened."

Lack of access to safe water kills many more children than AIDS, malaria and smallpox. Every day, women and girls spend a lot of time transporting water to their homes from distant sources. Prior to Phase 1, the Secretary General in charge of decentralized communities in the Beyla prefecture, said, “In most of our health facilities, patients suffer from diseases associated with the lack of access to safe drinking water and sanitation. Now we follow-up four times a year in project communities to identify problems and propose possible solutions. We will also see that this project has improved hygiene practices, and that the behavior is being sustained."

Togbèdou residents finally have access to drinking water

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Togbèdou is a village located more than 127km from Beyla Prefecture, in the N'Zérékoré region, with an estimated population of more than 450 inhabitants. Since its creation, Togbèdou has not had access to safe drinking water. Located about 500 meters from the village, women and children would have to go to the backwaters to draw water, which was often infected with bacteria, causing water-borne diseases.

Through this project, UNICEF and its partners have brought safe water to the villages in the region through manual drilling, putting an end to several years of suffering from poor quality water. Yakouba Keita, the village chief of Togbèdou still remembers, "Before, we had to drink from backwater. We managed to protect the surroundings, but that did not prevent the animals from also drinking from the same backwater. We had no choice. There were always cases of diarrhea in the village. We spent a lot of money on treating water-borne diseases."

In 2016, the village was preparing to welcome people from neighboring countries and tried to improve the backwater by using available means. However, their efforts did not work, and the water continued to make people sick. " With our modest means, we made a fortune well. After the ceremony, most of our visitors had diarrhea. It was a great shame for the village," said the village chief.

Every morning and evening, out-of-school women and children would go to collect water before going to the fields or returning home. The time that women and children took to fetch water could have been devoted to taking care of the family or learning to read and write. Creating a borehole with manual drilling has saved time for the people of Togbèdou. This is why village chief Yakouba Keita said, "We will never stop thanking and praying for UNICEF for this manual drilling program. Since the drilling, we ourselves have felt a change in the health of our children especially."

To perpetuate what they call the village jewel, practical arrangements have been made. SNAPE and UNICEF have set up a Public Water Service Management Unit (UGSPE) in Togbèdou. "The committee composed of the president, the secretary, the treasurer, the person in charge of hygiene and the village repairer helps us, thanks to the maintenance training that you provided. To provide funds for maintenance, each woman pays 2,000 GNF per month as part of the monthly contribution defined by the village." UNICEF also trained 14 pump repairers to ensure regular maintenance of the hand pumps and to help communities take ownership of the water points.

The people of Togbèdou are now drinking water from this manually drilled water point, and it is good for the health of the community, especially the women and children, who are the most vulnerable.

Since the drilling, all children are going to school on time "Bangali Traoré

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Before the drilling was carried out, all the inhabitants of the village obtained water from a well located at the exit of the village. Children had difficulty getting water because the well was deep.

Located 25 km from the rural town of Moussadou, in the prefecture of Beyla, Sogbadou is a village of 398 inhabitants spread across 57 households. In 2017, with your support in Phase 1 of the project, a borehole was constructed there.

Every morning, before going to school, all the children were busy first supplying their various households with precious liquid. This morning exercise prevented them from going to school on time. Added to this is was recurrence of water-borne illnesses, diarrhea, stomach aches, etc.

Bangali Traoré, resident of the village, who has become a repairer of pumps, says: “After the completion of this drilling, we received training from SNAPE on the maintenance and repair of pumps. This training brought together the 66 sub-prefectures of the region. Since the drilling, all children now go to school on time. Parents no longer care about drinking water issues."

To ensure the sustainability of the structure, the population of Sogbadou has agreed to sell water by volume as provided for in the national strategy for public water service in force in the Republic of Guinea.

Annex II: List of 38 villages with 40 manual boreholes completed

	Rural Municipality	Village, from proposal	Number of boreholes, from proposal	Replacement village, actual drilling site, 2019	Number of boreholes drilled, 2019	Reason for change in village
1	Gbackedou	Kouyakroudou	1		1	
2		Kossoulédou	1		1	
3		Kassoundou	1		1	
4		Damama	1		1	
5		Wariedou	1	Koulougbèdou	1	Negative drilling in Wariedou
6		Kounaédou	1		1	
7		Koubéla	1	Kamaladeni	1	Negative drilling in Koubéla
8		Kafobaro	2		2	
9		Djamounifrandou	1		1	
10		Banko	1		1	
11		Lafékémodou	1		1	
12		Moribadou	1	Kamalaba	1	Negative drilling in Moribadou
13		Cécédou Centre	1		1	
14		Kaniandou	1		1	
15		N'gouacé-doua	1		1	
16		Sanambala	1		1	
17		Missiboro	1		1	
18		Filadou	1	Daoudadou	1	Negative drilling in Filadou
19	Gbèssoba	Tonodou	2		2	
20		Kessésso (Djémenèn)	1		1	
21		Fatounzo	1	Vafindou	1	Negative drilling in Fatounzo
22		Lagbèsso	1		1	
23		Vanamadou	1		1	
24		Lassilandou	1	Bakokoro centre	1	Negative drilling in Lassilandou
25		Souakédou	1		1	
26		Morigba	1		1	
27		Késsésso (Facinedou)	1		1	
28		Siadou 1	1		1	
29		Gnigbèdou	1	Blassana	1	Negative drilling in Gnigbèdou
30	Bolodou	Koindou	1		1	
31		Jerusalem	1	Djoulouadou	1	Negative drilling in Jerusalem
32		Massamoudou	1		1	
33		Wolian	1	Woléyan	1	Spelling issue
34		Boadou	1	Bouwadou	1	Spelling issue
35		Tongolo	1	Tongoron	1	Spelling issue

36		N’mako	1	Makho	1	Spelling issue
37		Kouanko	1		1	
38		Kamadou	1		1	
Total			40			

Annex III: 5 Solar Powered Water Systems

Region	Village	SME	# of Water Points	# of Beneficiaries
N'Zérékoré	Nionsomoridou	EDICO	5	6,250
	Bolodou	EOCO	3	1,358
	Fangamadou	Nimba Cooperative	3	4,400
Labé	Donghel Sigon	Idéale Bâti	5	11,428
	Fello Koundouwa	Halima Construction	3	3,394
Total	**5**	**5**		**26,830**