



African Water Association capacity building program



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# PARTNERSHIP

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# SODECI & ONEA

*Beneficiary, Côte d'Ivoire*

*Mentor, Burkina Faso*

Burkina Faso, ONEA

Côte d'Ivoire, SODECI

## INTRODUCTION

According to the United Nations, despite the increase from 76% to 91% (between 1990 and 2015) of the proportion of the world population using an improved drinking water source, 663 million people do not still have access to an improved source of drinking water and at least 1.8 billion people around the world use a source of drinking water that is contaminated with feces.

The African Water Association (AfWA) in keeping with its efforts to support the African Ministers' Council on Water (AMCOW) in achieving the African Water Vision for 2025, is committed to develop programs for supporting the actors in the water and sanitation (WASH) sector. Thus, from 2015 to 2019, AfWA's Capacity Building Program (AfriCap) aims to promote partnerships in the sector of drinking water, with a funding from USAID. Following the Water Operators' Partnership (WOP) developed in 2009, AfriCap Program through its Component 3, supports African water operators including their laboratories for analysis and control of water quality to improve their performance, through facilitating partnerships between the most successful companies (Mentors) and less competitive ones (beneficiaries or Mentees).

For the year 2018, seven (07) partnerships were implemented with the funding support of the United States Agency for International Development (USAID). Among these partnerships, the one between the National Office for Water and Sanitation (ONEA) of Burkina Faso and the Côte d'Ivoire Water is the subject of this sharing paper. This partnership for which ONEA drinking water quality laboratory plays the role of Mentor aims to share with the drinking water quality laboratory of SODECI, laboratory which has been operating for the last forty-two (42) years, the experiments and good practices acquired by the Mentor following twenty-five (25) years of operation in the water sector and more specifically in the field of water quality control. The first exchanges between these two (02) partners took place during the benchmarking mission organized from 1<sup>st</sup> to 4<sup>th</sup> November 2017 in Ouagadougou - Burkina Faso, after which a tripartite Memorandum Of Understanding (MOU) between ONEA, AfWA and SODECI was signed.

## CHALLENGES

Beyond the quantity, the quality of water is an important factor of human health. Water is quickly subject to chemical and / or bacteriological contamination. In such a context, the main challenge of the drinking water quality laboratories arises in terms of reliability in the results of analysis carried out. Indeed, only good quality management of the analysis results produced by drinking water quality laboratories is able to guarantee the reliability of the results produced and indirectly help decision-making.

In Côte d'Ivoire, the government created SODECI in 1959, national public service for the urban public distribution of drinking water through a convention. To achieve its mission to operate, maintain, renew existing structures and manage customers, SODECI has been endowed with a drinking water quality laboratory in charge of controlling water quality. This young laboratory however faces several challenges in the management of water quality control, maintenance of laboratory equipment, services related to external provision and human resources development. Through its involvement in the capacity building project of African water operators in water quality management or AfriCap peer-to-peer program, the SODECI drinking water quality laboratory would like to benefit through its partnership with ONEA, from the assistance of a more experienced laboratory, with the aim of learning from the latter through short, medium and long-term actions defined in a Performance Improvement Plan (PIP) designed and validated on a consensus basis.

## PARTNERSHIP DESCRIPTION

The Laboratory Operator Partnership between SODECI and ONEA drinking water quality laboratories aims to adapt and implement, to the context of the SODECI drinking water quality laboratory, the good practices of the ONEA drinking water quality laboratory which have earned it a certain level of performance.

## Training of a group of laboratory evaluators

A group of thirteen (13) evaluators from the laboratories of the water companies of Benin, Burkina Faso, Cote d'Ivoire, Guinea, Ghana, Mali, Nigeria, Senegal, Sierra Leone and Togo were trained respectively from 05 to 07 October 2016 and from 27 February to 02 March 2017 in Accra, Ghana by Experts of the US Environmental Protection Agency (USEPA).

This training allowed: I) the reinforcement of the capacities of the evaluators in the water quality control II) the exchanges between the evaluators participating in the trainings and III) the elaboration of a Quality Audit Manual. All training contents and documents produced were shared with the SODECI drinking water quality laboratory.

## Exploratory evaluation missions

Exploratory evaluation were carried out in ten (10) drinking water quality laboratories within water companies, including the SODECI Laboratory. These are:

1. Cameroon Water Utilities Corporation (CAMWATER)
2. Ghana Water Company Limited (GWCL)
3. Ogun State Water Corporation (OGSWC)
4. National Office of Drinking Water of Côte d'Ivoire (LACQUE/ONEP)
5. Côte d'Ivoire Water Company (SODECI)
6. Guinea Water Company (SEG)
7. Niger Water Company (SEEN)
8. Mali Water Company (SOMAGEP)
9. Federal Capital Territory Water Board of Abuja (FCTWB) and
10. Togo Water Company (TdE)



The exploratory evaluation of the SODECI's drinking water quality laboratory exploratory evaluation mission took place 27 and 28 July 2017. This mission was conducted by AFWA evaluators : Mr. Francis D. Kéré and Mr. Olivier W. Yaméogo (ONEA) and Mr. Gilles Djagoun (AFWA) and helped to achieve the following results: i) summarize the level of performance of the laboratory and ii) identify possible improvements in policy and strategy,

institutional, organizational, legal, technical and financial issues in order to identify, in the short, medium and long term, the major challenges and improvement actions to be taken up by SODECI drinking water quality laboratory and (iii) identify and propose support to be provided by ONEA as Mentor for improving water quality management.

During this mission, major findings were noted by the evaluators. These findings include: Lack of staff, non-standardized workspace, lack of laboratory equipment, and non-existence of a procedure manual.

## Benchmarking visit

From 1 to 4 November 2017, a delegation of four (04) laboratory operators from three (03) countries conducted a benchmarking visit to ONEA and the National Public Health Laboratory (LNSP) of Burkina Faso. These are CAMWATER, SEG, LACQUE/ONEP and SODECI.



During this mission, presentations and field visits allowed participants to learn about ONEA's experience in quality control and management of water standards: institutional, operational and administrative aspects of the water sector in Burkina Faso. The choice of this country is justified by the fact that during the past years, ONEA through its drinking water quality laboratory has developed several initiatives, in terms of water quality analysis, and sometimes in partnership with water companies in Europe (Walloon Region) and Morocco (National Office of Electricity and Water -

ONEE) and water companies in Africa (Benin, Togo, Chad, Burundi). In addition, ONEA benefits from the expertise of the National Public Health Laboratory of Burkina Faso, which has technologically advanced equipment for the control of water quality. This gives ONEA drinking water quality laboratory a proven and good level of experience on water quality analysis and standards management. This is why AfWA has integrated ONEA as Mentor in AfriCap Program and especially in component 3 aiming to improve water quality control by the operators involved. After two days of learning, the SODECI drinking water quality laboratory and other participants were immersed in the experiences of ONEA and identified their needs.

### Development of Performance Improvement Plan

A technical assistance mission conducted from 05 to 09 March 2018 by AfWA group of evaluators trained for this purpose led the development of a Performance Improvement Plan (PIP) for SODECI drinking water quality laboratory. This mission took place following the development of a PIP template with support from USEPA and members of AfWA Water Quality Task Force (WQTF). SODECI drinking water quality laboratory now has its own PIP for improving its performance. The implementation and monitoring of this PIP will be carried out with the support of ONEA of Burkina Faso (Mentor).

Table 1: Performance Improvement Plan

<b>PERFORMANCE IMPROVEMENT PLAN</b>	
<b>Human resources</b>	
❖	Establish the criteria for handover and handover plan
❖	Strengthen the laboratory staff's capacities through training and benchmarking visits
❖	Implement the "Responsabilité Sociétale de l'Entreprise (RSE)" approach / Acknowledge the new Central laboratory according to ISO 17025
<b>External Services (Services)</b>	
Not applicable	
<b>Maintenance of Laboratory Equipment</b>	
❖	Equip and train the metrologist
❖	Make an equipment maintenance contract for the effective implementation of the annual maintenance schedule
❖	Reorganize / strengthen the existing laboratory's technical platform to improve safety
❖	Create more workspace and reagent storage store
❖	Build a New Central Laboratory of high analytical capacity meeting international standards
❖	Purchase connected thermo-hygrometers for monitoring analysis rooms
❖	Write a procedure for coding and managing water samples
<b>Management of Water Quality Control</b>	
❖	Strengthen the use of standardized analytical methods
❖	Implement the Quality Safety Environment (QSE) plan
❖	Strengthen the quality approach according to ISO17025: 2005

## Timeline of activities

Date	Country	Activity
<b>05 to 07 October 2016</b>	Accra (Ghana)	Training of group of experts evaluators
<b>27 - 28 July 2017</b>	Abidjan (Côte d'Ivoire)	Exploratory evaluation mission
<b>01 to 04 November 2017</b>	Ouagadougou (Burkina Faso)	Benchmarking visit
<b>05 - 09 March 2018</b>	Abidjan (Côte d'Ivoire)	Technical assistance mission for PIP development
<b>02 May 2018 to 30 April 2019</b>	Abidjan (Côte d'Ivoire)	Implementation of PIP
<b>08 to 09 November 2018</b>	(To be determined)	Mid-term evaluation workshop
<b>09 to 10 July 2019</b>	(To be determined)	Final evaluation workshop

## LESSONS LEARNED

Through bilateral working visits with ONEA, the SODECI drinking water quality laboratory has learned the following lessons:

- The development of laboratory assessment tools and the training of evaluators provided the group of expert evaluators with tools to implement the process for improved performance
- Starting from the exploratory mission, the SODECI drinking water quality laboratory learned of its major challenges and defined improvement actions
- The involvement of the Top Management of the two (02) Water Companies visited is a proof of the improvement of laboratories performance in controlling and monitoring the quality of water.

## WAY FORWARD

Following the activities carried out under this partnership, namely: the exploratory evaluations, the benchmarking missions as well as the development of the Performance Improvement Plan (PIP) of the SODECI drinking water quality laboratory; the implementation of this PIP is planned over a one (01) year period, starting from May 2018. Two (02) evaluations are also planned to measure the progress of the laboratory: a first mid-term evaluation and a second evaluation at the end of the implementation period.

La Société de Distribution d'Eaux de Côte d'Ivoire (SODECI) créée en 1959 est une société privée de service public. Elle est liée à l'Etat de Côte d'Ivoire par des contrats d'affermages eau potable et assainissement. La mission de la SODECI est d'exploiter, d'entretenir et de renouveler les ouvrages existants.

**SODECI in numbers :**

– Population served (Cities)	:	10 030 000
– Length of network (Km)	:	120 000
– Sales revenue (USD)	:	115 077
– Volume of treated water (m <sup>3</sup> )	:	259 000

**Drinking water quality laboratory in numbers :**

– Years of experience (Year)	:	42
– Number of samples analyzed / year	:	140 185
– Number of laboratories spread over the territory	:	09
– Staff (workforce)	:	25

Burkina Faso's National Office for Water and Sanitation (ONEA) is a state-owned company created on July 28, 1985. The mission of ONEA is to create, manage and protect water catchment facilities, supply, treatment, and distribution of drinking water. Its expertise includes the quality control of natural waters (drinking water from wells-boreholes-dams-lakes-rivers-) as well as the control of wastewater.

**ONEA in numbers :**

– Population served (Cities)	:	4 935 404
– Length of network (Km)	:	9 473
– Sales revenue (USD)	:	71 080 866
– Volume of treated water (m <sup>3</sup> )	:	95 320 198

**Drinking water quality laboratory in numbers :**

– Years of experience (Year)	:	25
– Number of samples analyzed / year	:	76 394
– Number of laboratories spread over the territory	:	10
– Staff (workforce)	:	20

*Implemented in Africa since 1 December 2015 for a period of four (04) years, AfriCap Program has been institutionalized as a sub-program of the African Water Association (AfWA). It has been operating since then thanks to the technical and financial support of several partners including the United States Agency for International Development (USAID), the African Ministers' Council on Water (AMCOW), the International University of Florida (FIU), the Water Supply, Hygiene and Sanitation Program/West Africa (USAID WA-WASH), the United States Environmental Protection Agency (USEPA), Population Services International (PSI) and beneficiary countries of West Africa. Partnerships between Laboratory Operators are exchanges and mutual working visits between two or more operators in the water sector. The goal is to mutually reinforce their capacities to improve their performance and play their roles in health monitoring and water quality control for all.*

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