

# Programme for the rehabilitation and conversion of 1,000 water points with hybrid pumps and management systems

## PROJECT TITLE:

Programme for the rehabilitation and conversion of 1,000 water points with hybrid pumps and management systems

## COUNTRY:

Ivory Coast

## AN INCUBATION PROJECT SUPPORTED BY:



[www.vergnet-hydro.com](http://www.vergnet-hydro.com)

## GEOGRAPHICAL LOCATION:

The programme will be implemented in 4 regions. Their identification is ongoing

## SCALE OF INTERVENTION:

National scale

## CONTEXT AND ISSUES OF THE TERRITORY:

In 1998, The Ivory Coast adopted a Water Code (Law No. 98-755 of 23 December 1998), which defines the country's legal framework for the integrated management of water resources and the management of hydraulic works.

The political crisis that lasted from 2000 to 2011 strongly affected access to water services. Under-investment during the crisis and high population growth led to severe water production deficits throughout the country. Large investment programmes in Abidjan have closed the gap, but deficits remain significant in many secondary centres as well as in rural areas and could be exacerbated by the observed disruption of the seasonal rainfall pattern.

The Priority Action Plan for the 2011-2016 period has led to a significant improvement in the national rate of access to water, which has risen from 40% in 2011 to 70% today, with a significant disparity between urban and rural areas. Nevertheless, Ivory Coast has made access to drinking water one of its priorities, as set out in the 2016-2020 National Development Plan (NDP), and has set itself the goal of achieving a coverage rate of 95% by 2020, and 100% by 2030 in accordance with the Sustainable Development Goals (SDGs).

A three-year strategic plan (Pst) has been drawn up by the Office National de l'Eau Potable (ONEP) in order to achieve these objectives, while strengthening the human, technical, legal and financial capacities of the actors in the drinking water sector.



Village hydraulics (HV): geographical distribution of existing and to be developed water points (ONEP)

In rural areas, drinking water supply infrastructure is still dominated by Human Powered Pumps (HPP) which equip 21,000 water points with a fairly high failure rate (around 40%). The Ivorian government intends to take advantage of the need to renovate the stock of HMPs to reduce the drudgery of fetching water and to promote technological innovations in the human hydraulic sector. In addition to these objectives, the State aims to put in place infrastructure maintenance mechanisms to ensure continuity of service and to keep breakdown rates as low as possible.

The major challenge for the water sub-sector lies in finding a management and maintenance solution that is close to the population and that integrates regional supervision.

## GOAL(S) OF THE PROJECT:

This programme to rehabilitate and modernise 1,000 existing water points, for localities of 500 to 2,000 inhabitants, aims to secure the population's water supply by improving the quality of the service and to make its management sustainable by setting up a payment system linked to the quantities of water consumed in order to at least cover the operating costs.

A total of 500,000 people will thus benefit from modernised access to water.

The fact that the service will be paid for in proportion to the quantities of water consumed will inevitably raise the requirements in terms of quality of service (continuous service of guaranteed quality water) provided by the Ministry of Hydraulics and ONEP. In order to meet these obligations, the latter may choose to delegate these responsibilities to a private operator through a balanced Public Service Delegation (PSD) contract that is binding on the population..

## SDG TARGETED BY THE PROJECT :



### Target 6.1: Access to safe drinking water

Achieve, by 2030, universal and equitable access to safe and affordable drinking water.

### Target 6.b: Collective water management

Support and strengthen the participation of local people in improvement of water and sanitation management

### Target 1.4: Access to resources

By 2030, ensure that all women and men, particularly the poor and vulnerable, have equal rights to economic resources and access to basic services, property and control of land and other property, inheritance and natural resources, and to appropriate new technologies and financial services, including microfinance.

### Target 13: Take urgent action to address climate change and its impacts

## PROJECT ISSUE:

Drinking water - innovation - solar - sustainable - durability - continuity - service - management - maintenance - professionalization

## SECTORS CONCERNED:

Rural hydraulics - drinking water - essential services

## EXPECTED RESULTS:

The main expected results are as follows:

- Existing boreholes that have broken down or are equipped with costly maintenance equipment are rehabilitated
- Pressure on groundwater resources is reduced

- Equipment is modernised
- Quality of service is improved: reduction of water collection for women and children
- A management system is made available to operators
- Water wastage has been reduced,
- The domestic water needs of rural populations are known.

## **STAKEHOLDERS OF THE PROJECT :**

### **Actors involved:**

- People of the territory
- Institutional actors
- Technical actors

### **Project Operator(s):**

Ministry of Hydraulics supported by the National Drinking Water Office (ONEP)

### **Technical partner(s):**

- Vergnet Hydro
- African society of hydraulics and renewable energy (SAHER)
- UDUMA
- National Office of Drinking Water
- Regional Hydraulic Directorates

### **Financial partner(s):**

French state (for the VAT part) and Ivorian state (for the taxes)

## **ESTIMATED COST OF THE PROJECT :**

18,000,000 € (VAT HD)

### **SHORT-TERM ACTIONS (3 YEARS):**

- A field visit to establish the status of the water supply in the area and define the water points to be rehabilitated and modernised among those existing in the area concerned
- An initial assessment of each pre-selected water point including: a technical diagnosis, a sampling and analysis of the borehole water, an estimate of the current and future water demand if the water point is selected for rehabilitation (local consumption + possible resale)
- For water points meeting the pre-selection criteria, an air-lift of the existing borehole and a flow check will be carried out systematically
- Disinfection of the borehole and an analysis of the physico-chemical parameters of the water quality are also planned during its rehabilitation.
- Removal of the existing human powered pumping device (HPP) and replacement of it, in the same borehole, by the new solar and hand pumps provided under the project.
- The solar pump will provide solar power to a reservoir (expected capacity 4 m3).
- Equipping the site to allow water to be distributed in accordance with basic hygiene rules, including at rush hours, preferably using closed containers
- Protection of the storage and production facility by systematic fencing.
- Provision and commissioning of water metering and payment systems
- Training of the actors involved in the management of the water points (fountains, technicians, repairers, managers, etc.)
- During this period, the beneficiaries (Ministry of Hydraulics and ONEP) will have defined a framework for the management of water points in rural areas and will have selected private operators to manage the 1,000 new systems via a Public Service Delegation.

- Stimulating the hydropower market on Reunion Island with the project owner/manager.

### **LONG TERM ACTIONS (10 YEARS) :**

Management of the 1,000 systems by one or more private operators over several years (about 10 years) via a Public Service Delegation