

PROJECT COMPLETION REPORT

PROJECT: WATER FOR OBUOFIA COMMUNITY

PRESENTED BY: RECTOR CARES FOUNDATION

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SPONSOR: POUL DUE JENSEN FOUNDATION/GRUNDFOS
[GRUNDFOS COMMUNITY ENGAGEMENT GRANT]

12 NOVEMBER 2021



POUL DUE JENSEN GRUNDFOS
FOUNDATION

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DECLARATION OF PROJECT COORDINATOR

I, **Mr. Onyedikachi Erete**, the coordinator of the Water for Obuofia Community project, hereby declare that:

- This project report is in line with the proposal earlier submitted for the Poul Due Jensen Community Engagement Grant;
- This project report represents an accurate description of the activities carried out in the course of this project for the stipulated reporting period; and
- This project has fully achieved its objectives and proposed goals for the stipulated period.

Name of Project Coordinator: Onyedikachi Erete

Designation of Project Coordinator: Convener, Rector Cares Foundation

Date: Monday, 12 November 2021

Signature of Project Coordinator: 

EXECUTIVE SUMMARY

PROJECT SUMMARY

A number of communities in the Eastern side of Nigeria are blessed with several natural sources of water, but do not have access to clean and safe water for their consumption and domestic use. This may be attributed to the undulating and hilly topography of these communities. Hence, these communities are restricted to contaminated and unhygienic sources of water with sole alternative to purchase water at exorbitant prices.

This project was primarily designed to improve supply of clean and potable water, which is considered as a critical life resource for community sustainability and resilience, to the indigenes and residents of Obuofia Community, Bende Local Government Area in Abia State, Nigeria (the “Community”).

OVERALL DELIVERABLES OF THE PROJECT

This project aims to reduce occurrence of water-borne diseases, such as cholera, diarrhea, and typhoid. It also aims to help the Community identify ways to stay safe by washing their hands and taking preventive measures to avoid widespread and adverse impact of Covid-19 virus.

The project also aims to increase supply of clean and potable water, which may be utilised for domestic use and agricultural purposes. Hence, the project was implemented through the construction of solar-powered borehole wells with reservoirs designed to meet domestic needs of the Community.

REPORT OBJECTIVES

This report provides detailed summary of implementation and completion of the project, as aligned to the project goal. It also highlights major activities undertaken during execution of the project; probable risks deduced; and monitoring activities designed upon completion of the project.

INTRODUCTION

ABOUT RECTOR CARES FOUNDATION

Rector Cares Foundation is a non-profit organization working to provide clean water to unserved and underserved areas in Nigeria. With a population of over 190 million, Nigeria is particularly vulnerable to the Covid-19 pandemic and hand washing is a key defence against the virus. Sadly, over 55 million Nigerians still live without access to clean water and Rector Cares Foundation aims to design feasible and sustainable strategies to combat these problems.

ABOUT POUL DUE JENSEN/GRUNDFOS FOUNDATION

The Grundfos Foundation is a Danish commercial foundation. Grundfos' founder, Poul Due Jensen, created the Foundation on 19 May 1975 and the values and ambitions of Poul Due Jensen are alive in the values of the Grundfos Group. He secured his heritage by establishing the Grundfos Foundation (the Poul Due Jensen Foundation) as the main owner of Grundfos. The Foundation currently owns 88.2 % of the share capital in Grundfos Holding A/S. Grundfos' employees own 2.2 % and the remaining 9.6 % of the shares belong to the Founder's descendants. The Poul Due Jensen Foundation's philanthropic activities are divided into three strategic areas: water, research, and inclusion.

In collaboration with experienced international NGOs, the Foundation strives to provide access to drinking water for the world's poorest in rural communities and forgotten refugee camps. The Foundation also ensures development of projects and programs that are environmentally, socially and financially sustainable. Hence, the Foundation is committed to therefore stays committed until they are convinced that each water project can ensure operation and maintenance in the long run. They also fund global initiatives to advance sustainable development.

PROJECT DESCRIPTION

This project was designed to increase the supply of clean and safe water for domestic use through the construction of solar-powered borehole wells with water reservoirs for Obuofia Community, Bende Local Government Area, Abia State, Nigeria. For years, indigenes and residents of Obuofia Community have relied on the Ojo and Ideyi Streams, which contain highly contaminated and unhygienic water, which is unfit for consumption and domestic use. However, we expect that completion of this project will enhance supply of clean water supply to meet the domestic demands of this community.

Execution of the project was initially estimated to take 2 – 3 weeks, but we expended about 10 weeks instead, due to a number of factors. The goal of the project was prescribed to improve access of indigenes and residents to clean and potable water, while reducing occurrence of water-borne diseases and unhygienic practices. Ultimately, the project enabled Rector Cares Foundation contribute to high-quality livelihood in the Community as we consequently impacted the lives of over 10,000 people living in the community and enabled quality access to safe and clean water, which is considered a basic need in every community.

FUNDS RECEIVED FOR EXECUTION OF THE PROJECT

The sum of €62,376.00 (Sixty-two thousand, three hundred and seventy-six Euros) was received from the Foundation, towards the execution of this project. We have restated the budget contained in the proposal, though we subsequently incurred more costs than estimated.

DESCRIPTION	ESTIMATION (NAIRA)
ASSEST PROCUREMENT <ul style="list-style-type: none">- 10,000 GALLONS CAPACITY WATER STORAGE TANKS/PLUMBING.- 3 HP SOLAR PANEL PUMPS- SOLAR PANEL POWER GENERATING UNIT- CONTROL STATION- SECURITY FENCE AND LED FLOOD LAMPS	22,500,000
FEES <ul style="list-style-type: none">- GEOPHYSICAL SURVEY, HYDROLOGIST AND CONSULTANCY	1,100,000
ADMINISTRATIVE COSTS <ul style="list-style-type: none">- LOGISTICS- INSTALLATION- COMMISIONING EVENT- MEDIA AND VIDEO COVERAGE- FACE MASK, HND SANITIZER KITS	5,650,000
TOTAL ESTIMATIONS	29,250,000

FIELD REPORT

DATA SUMMARY

Obuofia Community is situated in Isiegbu, Bende Local Government Area of Abia State, Nigeria. Obuofia Community is made up of over 10,000 people – primarily indigenes and residents with a composition of 50% women, 20% men and 30% children. Prior to the commencement of the project, we undertook an informal survey amongst community members via discussions and interviews.

A number of community members complained about the unbearable distance and discomfort to fetch water from Ojo and Ideyi streams. Children also narrated the challenges in accessing safe water, sanitation and hygiene services, as they complained about lack of access to handwashing facilities.

Hence, we selected a convenient location in Obuofia Community to install the solar-powered borehole, with the aim of providing sustainable clean water and sanitation to over 10,000 indigenes and residents in Obuofia Community.

REPORT OF NOTABLE EVENTS

This section highlights all the notable events that occurred in the process of executing this project.

PROJECT PHASE	NOTABLE EVENT	ELABORATION (PROCESSES, ACTIVITIES ETC)
Kickstart Phase 30 June – 4 July 2021	Groundwater drilling of borehole and construction of water pump station building	<p>We received delivery of construction materials and engaged Gold Talons Limited for the production of protective work wears for team members and site workers engaged to build the first industrial borehole in Obuofia Community.</p> <p>We commenced drilling of the solar water borehole. Due to the topography of the environment, we drilled a borehole – about 300 ft to 350 ft below the ground-level (the “Aquifer”) to enable us obtain clean and safe water for Obuofia Community, as recommended by Great Dane Resources Limited (GDRL) – a private company providing expert drilling and advisory services for water supply boreholes.</p> <p>While the groundwater drilling was ongoing, we engaged IceHills Services– a private construction company, to commence construction of a water pump station building to house the water pumps, solar gadgets and other necessary equipment to support the solar-powered borehole.</p>
Pro-Aquifer Phase 5 July – 27 August 2021	Pulling the drilling stems, casing the well and pump installation	<p>We consequently hit the Aquifer on the sixth day of the water project, as we analysed different samples obtained from the formation undertaken in the Kickstart Phase. We therefore commenced flushing of impurities to enable us fit appropriate pipes and lower the well casing into the borehole – which was drilled 350ft below ground-level.</p> <p>On the tenth day, we finally hit clean water in Obuofia Community in our quest to end water poverty. We subsequently proceeded with installation of the 20ft tank stand and construction of additional water storage tanks.</p>
Installation Phase 8 – 10 September 2021	Installation of Grundfos’ Solar Submersible Pump SQFlex 2.5-2 Model	<p>We installed the Grundfos’ Solar Submersible Pump, which uses renewable energy sources aimed at keeping operational costs low and transporting water from below ground level to the surface, thus making it an ideal solution for reliable and sustainable community water supply.</p> <p>We subsequently installed solar panels on the roof of the water pump station building, thus enabling us supply clean and potable water to Obuofia Community.</p>

PROJECT PHASE	NOTABLE EVENT	ELABORATION (PROCESSES, ACTIVITIES ETC)
Celebration Phase 11 – 30 September 2021	Hand-over of project to Obuofia Community	<p>We commenced appropriate processes to hand-over the completed project to members of Obuofia Community. The installed solar borehole project will supply 10,000 litres of clean and safe water to the Community daily, and this is estimated to exceed the current daily consumption of the Community.</p> <p>Execution of the project was received with immense admiration and appreciation by the leaders and members of the Community, as the Project Coordinator was subsequently conferred with the title of ‘Mmiri na Ezoruoha 1 of Obuofia’ (a traditional chieftaincy title).</p>
Pro-execution Phase 1 – 31 October 2021	Implementation of monitoring and evaluation measures	<p>We ensured implementation of feasible measures designed to maintain and sustain the project. We organised training sessions to enable indigenes and residents understand ways to maintain the borehole and give the Community sense of ownership, thus ensuring future management of the water project.</p> <p>Further thereto, women in the Community set up groups to undertake Community monitoring of the borehole on a monthly basis. Nevertheless, we will endeavor to have a technical team oversee monitoring and management of the borehole on a yearly basis as we develop water supply and sanitation programmes subsequently</p> <p>We also aim to undersee formation and training of Water, Sanitation and Hygiene Committees (WASHCOMs) in host communities, designed to economically empower members in borehole hand pump repairs and encourage subsequent community engagement projects.</p>

PROJECT DELIVERABLES

The implementation phases and details on each phase for this project are listed below:

	Deliverable	Status
Borehole installation	Drilling of 350 ft below ground-level to access clean water	Completed
Water pump station	Construction of water pump station to house all the equipment needed to provide water for the community	Completed
Tank stand installation	Installation of the 20 ft water storage tank stand to provide storage for water	Completed
Solar submersible pump	Installation of the Grundfos’ Solar Submersible Pump that uses renewable energy to help transport water from below ground level to the surface	Completed

CONCLUSION

PROJECT IMPACT

This project has provided Obuofia Community with reliable supply of clean water, as the Community hitherto had limited access to clean water. This project has therefore provided an avenue to reduce the spread of COVID-19 by providing them with access to clean water to wash their hands.

This would help reduce the impact of COVID-19 in the world in general. We aim to minimize the impact of the virus one community at a time, and this was a steppingstone to achieving this goal.

GALLERY

This section shows images of the different stages and processes carried out within the period of this project.



FIG 1.1 DRILLING MACHINE USED TO DRILL 350 FT BELOW GROUND LEVEL



FIG 1.2 PREVIOUS SOURCE OF WATER FOR THE COMMUNITY



FIG 1.3 WATER STORAGE TANK STAND BEFORE COMPLETION AND AFTER



FIG 1.4 CONSTRUCTION AND SUPERVISION OF WATER PUMP STATION



FIG 1.5 WATER PUMP STATION IN CONSTRUCTION (left) AND COMPLETED (right)



FIG 1.6 ARRIVAL OF THE GRUNDFOS SOLAR PANEL



FIG 1.7 UNVEILING OF THE GRUNDFOS SOLAR PANEL



FIG 1.8 INSTALLED GRUNDFOS SOLAR PANEL



FIG 1.9 COMPLETED PROJECT SHOWING THE FRONT VIEW (left) AND BACK VIEW (right)



FIG 2.0 THE TEAM