



PROPOSAL FOR A DRILLING A BOREHOLE AT <u>NAMUSIMBIMBI VILLAGE (KENYA)</u> NAMUSIMBI SAFE AND CLEAN WATER PROJECT

PROJECT SUMMARY

Project Name: Namusimbi Safe & Clean Water Project
Project Site: Namusimbi village, Chwele location, Bungoma County, Republic of Kenya
Host Rotary Club: Bungoma Central (Club ID. 225454)
International Rotary Club: Leawood Kansas Rotary
Implementing Agency: Hydrosol Drilling Company
Project Total Cost: KES 5,441,599 (Equiv. USD. 41,858.46)
Partners:

1. County Government of Bungoma

Introduction

The Rotary club of Bungoma Central is one of the clubs that forms Rotary District 9212. It is located in Kabuchai Constituency within Bungoma County in the Western part of Kenya a few kilometers from the base of Mt. Elgon.

Rotary club of Bungoma Central wishes to undertake a drilling a 150 meters deep weel at Namusimbi village to benefit families within who have no access to safe and clean water. Namusimbi lies on the boundary of three areas of administrative and political jurisdiction, thus: Chwele, Kabuchai and Toloso locations (as classified by the National Adminstrative units). Politically, part of Namusimbi is in Namwela ward of Sirisia constituency and another section is in Kabuchai-Chwele ward of Kabuchai constituency. Namusimbi has a total of 500 households that translates to a total of 3,000+ persons.

As history has proven, communities living around boundaries tend to be forgotten and relegated. This explains Namusimbi's pronounced lack of serious investment in public utilities such as schools, roads, etc. An American once wrote a book entitled "Everything is politics, but Politics is not Everything.

Background Information

The Rotary club of Bungoma Central conducted a public forum on the 13th March 2025 at Namisimbi village, forum held on Thursday 13th March 2025. The forum was to undertake an assessment of the needs of the community and brainstorm on priorities that needed immediate and long-term interventions. The forum was attended members of the host Rotary club, grass-root leaders from both from the National and County Governments; and representatives of the member of parliament and civic leader.

During the engagement, it came out that community members have limited access to safe and clean water. Scarcity of water is a perennial problem that bedevils not just Namisimbi, but many villages in the rural Kenya.

Problem Statement

As research has indicated, Sub-Saharan Africa suffers from chronically overburdened water systems under increasing stress from fast-growing urban areas. Weak governments, corruption, mismanagement of resources, poor long-term investment, and a lack of environmental research and urban infrastructure only exacerbate the problem. In some cases, the disruption of or contamination of water supply has incited domestic and cross border violence.

Incorporating water improvements into economic development is necessary to end the severe problems caused by water stress and to improve public health and advance economic stability of rural communities.

Stress emanating from inadequate access to safe water in sub-Saharan Africa is huge. Of course, there are a broad range of social, economic and environmental problems caused by unmet water needs. This in effect leads to increasing the risk of water-borne diseases such as cholera. While water stress occurs throughout the world, no region has been more affected than sub-Saharan Africa.

The UN Environment Program (UNEP) compares water scarcity and quality today with a projection for the future: Currently, access to safe water in sub-Saharan Africa is worse than any other area on the continent. UNEP had projected that by this year 2025, as many as 25 African nations -- roughly half of the continent – were likely to suffer from a greater combination of increased water scarcity the resultant stress.

Namusimbi village is one of those many in Kenya that make the country no meet the UN's Millennium Development Goals (*ensure environmental sustainability, combat malaria, improve maternal health, reduce child mortality, eradicate extreme poverty and hunger, etc*). Valuable amounts of time are spent on fetching water which compromises human efficiency in other sectors.

Educational and economic advancement of women and girls in African societies is greatly hampered as they are culturally expected to rise up early and go to fetch water. This is exacerbated during long dry spells when even nearby rivers and streams dry up.

Project Description

A. Project Design Process

The Rotary club of Bungoma Central conducted a needs assessment exercise on the 13th of March 2025 at Namusimbi village. During the forum, it emerged that water is the most expensive commodity to the residents which has to be given priority. The assessment exercise was attended by local leaders both from the Central Government and the County Government of Bungoma, in addition to community residents.

B. Project Goal

The project will be implemented at Namusimbi village with a population of 3,000+ spread around 500 homesteads. The overriding Project Goal will be to improve the livelihoods of 500 homesteads in Namusimbi village through access to safe and clean water within walking distance. The plan is to drill a 150 meter deep well, mount an elevated storage tank, pump the water using solar, and lay pipes within a 3 kilometers radius so residents can fetch water closer home.

C. Expected Project Outcomes

The project will have both direct and indirect benefits to the recipient community and Rotary as an organization, thus:

- 1. **Disease prevention:** Accessing water that is both safe and clean will enable the community to live a healthy and disease-free live. When community members are able to bathe and clean their households, bacteria and harmful germs that cause infection will be eliminated.
- 2. **Caring for environment:** the water will also be used for watering of trees and flowers around respective schools.
- 3. Educational Advancement: Learning and exchange of best practices among Rotary club members and school communities through training. Additionally, the children and parents will acquire practical skill in rain water harvesting, storage, and recycling. These are capacities they can work with in their homes and farms.
- 4. **Improved Economic Conditions:** Access to safe and clean water by all will occasion the realization of ideal communities. The amount of time spent fetching for water will be utilized in economic productive economic engagements. Again, with clean and safe water, incidences of water-borne diseases will reduce. The families can use the money now on the education of their children.



5. Nurturing Peaceful Societies: Research has shown that conflicts emanating from limited access to safe and clean water are rampant in African societies. Take for instance the case of a married woman waking up early to go fetch water and returning home late. The husband may not be fully convinced as to where she has been and what she has been doing all this long;

D. Project Process and Phases

The project will encompass several stages that include:

- a) Hydrogeological survey of the project site.
- b) Acquisition of the Water Resources Management Authority (WARMA) and the National Environmental Impact Assessment (NEMA) permits.
- c) Drilling a 150 meters deep borehole with finished internal diameter 8" to the required maximum depth.
- d) Test Pumping for 24 hours, draw-down, yield recovery and data analysis.
- e) Chemical analysis of water sample
- f) Installation of plain steel 6" (152mm) 10.0 10,000 100,000
- g) Installation of slotted steel casings 6" (152mm)
- h) Installation of gravel pack (2-4mm) (not laterite) to at least 3m above top screen.
- i) Borehole development by airlifting and/or surging for minimum of 4hrs, with an estimate of discharge and static water level measurement
- j) Installation of surface casing without retrieval
- k) Solar structure civil works and welding
- 1) Electrical commissioning and solar panels termination
- m) Erection of a water tower
- n) Laying of pipes to a 3 kilometers radius.
- o) Mounting the water tank and plumbing works
- p) Training of the project committee
- q) Official commissioning of the project/public launch.
- r) Continuous monitoring and evaluation and reporting

The envisioned project and related activities tie into 4/7 of Rotary International's thematic areas of focus, i.e:

- Access to water and sanitation and sanitation services
- Economic and community development of communities
- Promoting peace and preventing conflict.
- Preventing disease.

When women bring home water within walking distance, family units will be stronger and thus we will have a stable society with parents serving as role models to their children.

Namusimbi village lies a few Kilometers from the base of Mt. Elgon. She is within the Mt. Elgon bio-region that receives an annual rainfall range of between 1,740 mm to 1,940 mm.

E. <u>Strategic Partnerships</u>

The Rotary club of Bungoma Central is working closely with both state and non-state agencies in the design and implementation of this project. These include:

- 1. The County Government of Bungoma, specifically the department of Water, Sanitation and Irrigation.
- 2. The Local administrators from the Central Government; specifically the Chiefs of Chwele and Toloso locations within which the project beneficiaries live. This is for sensitization of the community.
- 3. Mt. Elgon Peace Initiative (MEPI Kenya) which is local NGO engaged in advocacy and streamlining for equity and inclusivity among the population.
- 4. Hydrosol Drilling Company a private company based in Nairobi that undertakes drilling and installation of underground water systems and solarization works around the County.
- 5. We are seeking an international Rotary club to partner with us from the West on this project.
- 6. A project monitoring committee has already been established involving residents of the area. This will offer continuous site management and safeguarding of the equipment once installed.

We will be working with the above-named partners in a continuous training of the project committee and monitoring of the project.

Rotary's approach to strategic partnership has already paid off in the initial stages of project design, community sensitization and mobilization. We have put together a project committee involving select members of the Rotary club and a few community members who were picked amidst residents in a public forum. The immediate outcomes of this effort, thus is:

- a) Political Good Will
- b) Community Ownership
- c) Synergy and mutual learning among partners
- d) Community Cooperation
- e) Local Ownership



PROJECT BUDGET SUMMARIES

S/No	Project Item/Phase	Costs (KES)	USD Equiv
1	Project Launch	150,000	1,153.85
2	Drilling Works & Casting	1,023,000	7,869.23
3	Installation of Solar System	1,094,866	8,422.05
4	Construction of a Water Tower	706,800	5,436.92
5	Laying Pipe Network (3kms radius)	500,000	3,846.15
6	Tickets for 2 Members of the Int. Partner Club to the Project Site	360,000	2,769.23
7	Training of Project Committee	200,000	1,538.46
8	Laying Pipe Network (3kms radius)	500,000	3,846.15
9	Administration	906,933	6,976.41
	GRAND TOTAL	5,441,599.00	41,858.46

<u>NB</u>: Exchange Rate: 130 KES = 1 USD

KEY PROJECT CONTACT PERSONS

1. Primary Contact Person

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2. Secondary Contact Person

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3. Drilling Works Expert

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4. Overall - Reporting & Accounting Dickson Sifuna Rotary Club of Bungoma Central Rotary ID. **11799312** Cell: +254 721 528 564

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