

NZAVONI DESALINATION PLANT & SOLAR PROJECT

LAUNCH REPORT 2023

An-Nabii Centre, Nzavoni was established in 1986 through the construction of a mosque, a madrasah and pre-primary classes. Furthermore, The Bilal Muslim Mission of Kenya provided an I.R.E teacher to Nzavoni Primary School. Currently, 65 muslim families benefit from the centre's facilities.

Nzavoni village is located in Kibwezi East sub-county, one of the driest parts of Makueni County with highly erratic and poorly distributed rainfall. The area has experienced persistent water scarcity for decades due to lack of a permanent water source. For a people that typically rely on rainfed agriculture, total crop failure or meager harvests lasting barely a month have been causing frustration.

Agriculture plays a crucial role in food and nutrition security. It serves an equally vital role in the reduction of poverty. Independent, self-employed farmers are able to engage in subsistence farming of crops such as maize, green grams, and cow peas combined with livestock rearing of poultry and goats accounting for 80% of the average household income.

Water scarcity has the unfortunate knock-on-effect of causing food insecurity, due to the acute repercussions on food production. This is problematic in a country with a rapidly growing population. High incidences of childhood stunting, general under nourishment and acute malnutrition are observed in the populace.

The journey in search of clean fresh water has been a long one. A water survey conducted at Nzavoni centre in 1996 by the NGO AMREF found that the optimal depth at which to dig the well there was at about 10 to 12 metres.



In 1998, the Nzavoni shallow well was dug in a fruitful attempt to obtain less saline water. Regrettably, this well dried up after a few years. The community then moved to Tanathi Water Service Board in 2004 whereby a water pipeline connection was done by Kibwezi- Mtito Andei Sewerage Company for provision of fresh water. This water supply is unreliable, water being available only a few days in a month.



In October 2020, Bilal Kenya commissioned a hydrogeological survey in the Nzavoni centre and its environs to search for a suitable borehole drilling site located a few meters from the Centre. With the support of NASIMCO, a deep borehole was drilled to a depth of 120m and an adequate supply of water identified. The borehole construction and installation of a solar pump was completed by September 2021.

Subsequent water quality analysis revealed that the water was unfit for human or animal consumption due to high levels of minerals and chemical contaminants. Desalination and Decontamination of the water was required before it could be used by the local community.

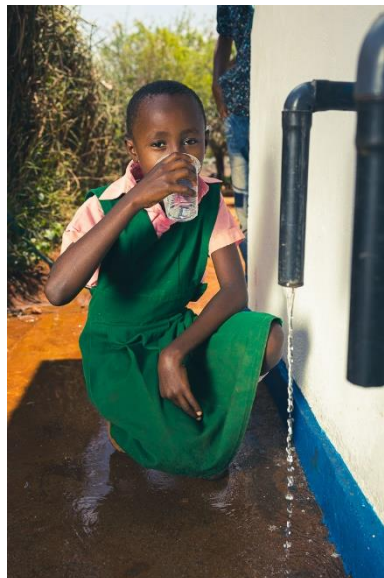
In 2022, WF-AID Ali Asgher Water Appeal in partnership with Stanmore Jafferys Sportive came to the aid of the people of Nzavoni and supported the cost of installation of a solar powered water desalination plant. A new era of health and safety opened up for the people of the area.

The solar powered desalination plant can produce up to 2,000 litres of potable water per hour. The fully operational plant was launched by Dr. Gulam Mehdi Sumar, WF-AID Development Ambassador on 14th February, 2023. The entire local community was in attendance, manifesting how momentous the occasion was for them. Also among the guests were religious leaders from churches and mosques in the vicinity, County Government representatives, political representatives, BMMK representatives and water kiosk and Boreal Light representatives. The Theme highlighted at the function was CLEAN WATER AND HEALTH. This was indicated prior in the invitation letters and reiterated again at the event.

The local government authorities and other representatives invited were extremely positive and promised to support this initiative by sensitizing people and creating awareness on the use of clean water for domestic and sanitation purposes, livestock rearing and irrigation. The inhabitants of Nzavoni and its environs now have access to enough fresh water for drinking and for irrigation of the centre's demonstration farm.

IMPACT

- Installation of a desalination system producing more than 2000 litres per hour of water for drinking and domestic use.
- Provision of clean and safe drinking water for over 600 families of Nzavoni and its neighbouring villages, such as Ngokolani. Sales are ongoing and doing well due to water scarcity in the area.
- Promotion of a healthy community due to improved sanitation and hygiene preventing food and waterborne illnesses.
- Revival of Nzavoni Centre's tree planting project.
- Creation of employment for several community members who supply water to distant locations, offering door to door water delivery using motor cycles, bicycles and even wheel barrows.



The Mission appreciates the generous support received from The WFAID, AFED & Stanmore Jafferys Sportive towards this project.

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Feb 2023
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