

# **Kilimo Timilifu**

Holistic Farming Empowering whole families through Sustainable Agriculture. PO Box 638 Lindi, Tanzania +255-787-992445 www.kttanzania.org

# Project Title: Solar Pumping for Domestic Water

## **Project Abstract:**

In 2017 Kilimo Timilifu (KT) was able to put in a hand dug well, pump and pipe line to the farm. This well has been a great blessing to help with our water needs on the farm, both for domestic needs, but also for building needs. Additionally it supplies water to the village secondary school.

However, two things are causing high pumping costs: 1) the price of Electricity and 2) the unreliability of electricity causing KT to run an expensive generator. KT would like to pump domestic water with solar and eliminate both problems.

Total estimated cost to install solar to pump domestic water **\$7,840 USD**.

### **Project Description:**

In 2017 Kilimo Timilifu (KT) was given a generous grant that enabled KT to install a hand dug concrete ring well on its lower property and a water pipe line all the way through the village secondary school property and on up the hill to KT's farm. This well has been a great blessing to help with our water needs on the farm, both for domestic needs, but also for building needs. In addition to helping KT, this water system is supplying water for the Village Secondary school, both for the teacher's homes and all the lavatories on the premises.

Water is pumped from the well with a <sup>1</sup>/<sub>2</sub> HP pump into a ground reservoir tank. From there is it pumped up hill (1.3 Kilometers) with an electric 3 HP pump. This systems is working and supplying water for all the above needs.

However, there is a significant cost involved in purchasing electricity and in purchasing diesel and maintenance on a generator big enough to run the pump when there is no electrical supply. Unfortunately electrical outages are frequent and often electricity is restored after working hours. Additionally, as our refresh rate in the well is slow, so we need to have the small well pump on to fill the ground reservoir tank for quite a few hours a day to keep up with the water demand. With electrical outages so often, this becomes quite a challenge.

The solution to remove the challenge of pumping hours, the cost of electricity and the cost of diesel all together is to install solar power capable of running our pumps independent of electricity.

The full estimated cost to do this is **\$7,840 USD**.

#### **Project Goals & Objectives:**

- Raise \$7,840 USD for solar installation.
- Install solar at the well site.
- Enjoy big savings and worry free water supply.

#### **Project Timeline:**

While this need is not urgent, the sooner we install solar the more we save. Mid 2020!

#### **Project Budget:**

USD	Budget Item
\$1,300.00	4pc Battery Sealed 200Ah
\$990.00	4pc Panel 300Watts (24V)
\$1,050.00	Victron Solar Regulator 150/100
\$3,000.00	Victron Inverter 5,000VA/28V
\$300.00	Steel for solar collection stand
\$600.00	Cabling for solar arrays
\$400.00	Installation & Setup
\$7,840.00	Total Need

#### Where to donate:

If tax deductible receipt **is** needed:

In the <u>USA</u>: <u>Give via Grace Bible Church, Bozeman, MT</u> & add comment "**SolarPump**". In <u>Canada</u>: <u>https://mrds.ca/donate/</u> MRDS Canada Project Code: "**KTTanzania.001-SolarPump**" Millennium Relief & Development Service (MRDS) is KT's charitable partner both in <u>Canada</u>. Please consider adding 5% to your gift to cover MRDS's administration costs.

If a tax deductible receipt **is NOT** needed please send electronically the funds to: Bank Name: Citibank, NA Bank Branch: New York Bank Location: 111 Wall Street, New York, NY 11120 ABA: 021000089 Account Name: AIM International Account #: 36826621 MEMO: For KT credit into AIM ABS-1800-9005-200

**Note:** If Citibank is used, please notify KT at <u>ceo@kttanzania.org</u> so we can follow up. If wishing to donate <u>outside the USA or Canada</u>, please contact <u>ceo@kttanzania.org</u> for options.