

STORIES FROM THE FIELD

CRA Charitable Registration N° 800640062 RR001



KUWALA
Christian Girls School



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**PRINCESS IS OFF TO
DOMASI COLLEGE OF
EDUCATION, MALAWI**

SCHOOL IS NOW IN SESSION

**WE ARE BEGINNING A NEW
SCHOOL YEAR FILLED WITH
POSSIBILITIES, GROWTH, AND
LEARNING.**

There is a wave of excitement, laughter and smiles as the students return to Kuwala! The new Form 1 students arrived first to get settled, become acquainted with the campus and teachers and have a few days of orientation. Now, they are ready to shine! The continuing students arrived by various transportation modes, and a few former student graduates were on campus to assist with the registration process. As the campus continues to expand, the newly designed parking lot at Kuwala allows some vehicles to maneuver in a safe and groomed area, away from the foot traffic.

Our dedicated team of educators and staff have been hard at work preparing for the return of students. Before the students returned to school, the teachers and staff from two nearby schools came together at Kuwala for workshops. The main topics were Child Protection and Child guidance. A top performer from another Secondary school in the area hosted and facilitated a second workshop on the Teaching and Learning Process. Keeping the teachers engaged, learning, and working with teachers from other top schools fosters a robust team environment at Kuwala.



BACK AT IT

Students have returned with a burning desire to learn and carry their luggage to their dorms.

Students receive a top notch secondary education, room and board, three meals a day in a clean safe and respectful learning environment.



FIRST GRADUATING CLASS OF 2022

THEIR JOURNEY CONTINUES.

Our first Pioneer Graduating Class of 60 girls succeeded in the National Exams. Malawi Public Universities and Colleges have selected 23 of Kuwala's top students. Congratulations to all these extraordinary students and the girls who graduated at Kuwala!

Malawi University of Science and Technology — **Cecila.**

Malawi University of Business and Applied Sciences — **Tamanda, Lucy and Tiyanjane.**

Mzuzu University – University in Mzuzu, Malawi — **Rita, Charity, Esther, Sabina, Jacqueline, Ruth, Maria, Bridget and Falida.**

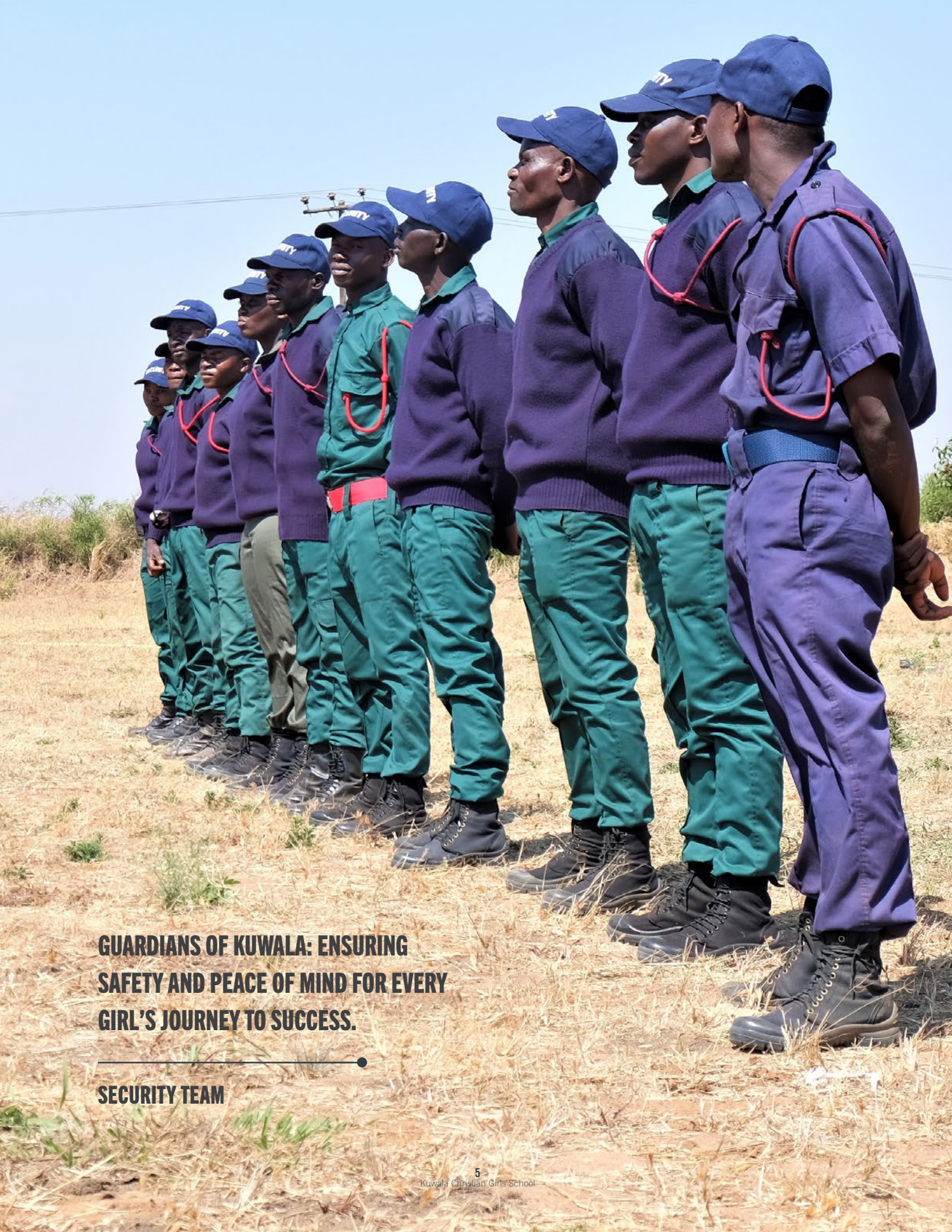
University of Malawi – University in Zomba, Malawi — **Mervis, Olive, Desire, Tisangalale, Modester and Emelester.**

Domasi College of Education, school in Malawi — **Princess and Beatrice.**

Kamuzu College of Health Sciences, University in Blantyre, Malawi — **A vess and Memory.**

UPDATE

Many of our readers have asked what becomes of the Kuwala students once they graduate? It is often hard to keep in contact because of the distances and lack of technology in rural Malawi where the girls are from. But, we have managed to track some of the success. *See list to the right.*



**GUARDIANS OF KUWALA: ENSURING
SAFETY AND PEACE OF MIND FOR EVERY
GIRL'S JOURNEY TO SUCCESS.**

SECURITY TEAM

LET THE SUN SHINE ON KUWALA!

**SOLAR POWER
PLANT INSTALLATION
AT KUWALA IS POWERING
THE FUTURE.**



■ Roof-top solar panel installation. Kuwala_2023.

During the summer months, plenty continued to happen at Kuwala. H.E Jackson Engineering installed thirty-six solar panels; the solar cable installation will be next while the solar storage batteries are on route. It will make such an impact on the campus. With the country's challenges for reliable power due to the ongoing effects from the Cyclone earlier this year, solar will provide predictable power for the entire campus, a "green" solution and, in combination with the computers and Starlink, introduces the opportunity for exciting new ways to provide education to the students. Starlink is a satellite Internet constellation operated by



■ Roof top installation of solar panels. Kuwala_2023.

American aerospace company SpaceX, providing coverage to over 60 countries. The solar photovoltaic (PV) system supplies stable power for campus education buildings. Key features include Solar Energy Harvesting: Equipped with an array of solar panels, this system captures and converts sunlight into electricity with a capacity of 20 kilowatts. The output of this solar field can theoretically light up 333 60-watt incandescent light bulbs simultaneously. However, in practice, the actual number might be slightly less due to inefficiencies in the system, energy storage losses, and other factors.

Integral to its design is a substantial battery storage component. This reservoir of energy serves as a dependable source, ensuring uninterrupted power supply during periods of reduced sunlight, such as cloudy days or nighttime.

The system is interconnected with the conventional Malawi electric grid. This integration allows the campus to draw power from the grid when solar generation is insufficient during high loads, like using the workshop equipment (welding) for long periods. Grid power can supply much higher loads, especially for peak demand.

Continued...

SOLAR POWER

CRITICAL TO THE SUCCESS OF THIS PROJECT IS H.E. JACKSON ENGINEERING LTD. THIS FIRM IS A LEADING ENGINEERING AND CONSTRUCTION COMPANY IN MALAWI.



...Continued

In a critical role, this solar PV system functions as a reliable backup for essential loads like lighting, computers, communications, etc, during instances when the Malawian electrical system experiences disruptions or outages. It ensures continuity in powering campus education facilities, mitigating downtime.

Critical to the success of this project is H.E. Jackson Engineering Ltd. This firm is a leading engineering and construction company in Malawi, capable of undertaking turnkey contracts in the fields of water supply, irrigation and renewable energy products. It serves all sectors of the economy, namely mining, agriculture, industry and commerce, rural develop-



■ Securing the solar panels to the racking system on the roof. Kuwala_2023.

ment and construction. The company has seen tremendous growth since its inception, allowing the organization to diversify into other revenue streams that complement the existing structures such as Kuwala's solar roof top installation of 36 interconnected panels to Malawi's national power grid.





■ Roof top solar panel array. Kuwala_2023.

SOLAR EMPOWERMENT

**LIGHTING THE FUTURE FOR
KUWALA'S ALL-GIRLS CAMPUS
IN MALAWI.**

A BRIGHT FUTURE

The solar initiative at Kuwala is not just an infrastructural upgrade; it's a profound statement of intent. By embracing solar energy, the school is paving the way for a brighter, more sustainable future for its students, signaling a commitment to both education and the environment.



In the heart of Malawi, a shimmering beacon of hope emerges at Kuwala's all-girls school campus. The school has recently embarked on an ambitious project to harness the sun's power by installing solar panels on its roofs. The move is more than just an embrace of clean energy; it's a decisive step towards securing a brighter, more consistent, and resilient future for the school's community.

Like many African countries, Malawi grapples with energy challenges that can disrupt everyday life. For educational institutions, the reliability of the power supply isn't just a matter of convenience—it directly impacts the quality of education.

WHY SOLAR IN MALAWI

01

Addressing the hydroelectric dependency: A significant portion of Malawi's electricity is generated through hydroelectric power. While hydro-power is renewable, it's highly susceptible to the vagaries of nature. With climate change at the forefront in recent years, Malawi has witnessed unpredictable rainfall patterns and extended drought periods, leading to decreased water levels in its reservoirs and rivers. This has inevitably resulted in less consistent hydroelectric power generation.

02

Consistency for enhanced learning: An erratic power supply significantly challenges the learning environment. From basic classroom lighting to powering computers for digital learning, a consistent power source is indispensable. With solar panels, Kuwala can ensure that its students never miss out on crucial lessons due to power outages. It also demonstrates to the students sustainable energy management and the use of technology to solve engineering challenges.

03

Sustainability and Self-Sufficiency: Solar energy doesn't just promise consistency; it is a testament to Kuwala's commitment to sustainability. By investing in solar infrastructure, the school not only reduces its carbon footprint but also sets an example for the community and the nation at large. Furthermore, the school can save on electricity costs over time, channeling those funds towards enhancing educational facilities.

04

Power Security: Dependency on a national grid or external power sources can be precarious. With its solar installation, Kuwala can have better control over its energy consumption, ensuring power security and decreasing its vulnerability to external energy crises.

OUTDOOR GARDENS

GROWING OUR WAY TO BECOMING SUSTAINABLE.

The greenhouse is blossoming with so many tomatoes that the farm crew are storing in the St. Peter's Assembly Hall and will sell to the local communities. The Kuwala's Farm Manager, Innocent, created an upland reservoir near the water tower. The pool is covered in thick black plastic to prevent water infiltration into the soil. This reserve water is used to irrigate the fields of tomatoes planted nearby.

The outdoor gardens produce rich, leafy greens and onions. Farm Manager Innocent brings a wealth of creative knowledge to making and storing all the crops grown at Kuwala. The onions are harvested, tied in bunches, and left hanging under a thatched roof storage area for six months. The kitchen staff has also arrived, and they are ready to turn on the biogas and begin cooking meals for the Campus!



■ Tomatoes inside the greenhouse. Kuwala_2023.



■ Kuwala built a thatched roof to dry the onions. What the Campus doesn't use will be sold at the market. Kuwala_2023.



■ Papaya trees are starting to bear fruit. Kuwala_2023.



■ Workers harvesting tomatoes at the Campus. Kuwala_2023.



■ Farm Manager, Innocent brings in the harvest from the fields. Kuwala_2023.



■ Extra produce is sent to the local market, in this case by carbon neutral pedal bike. Kuwala_2023.





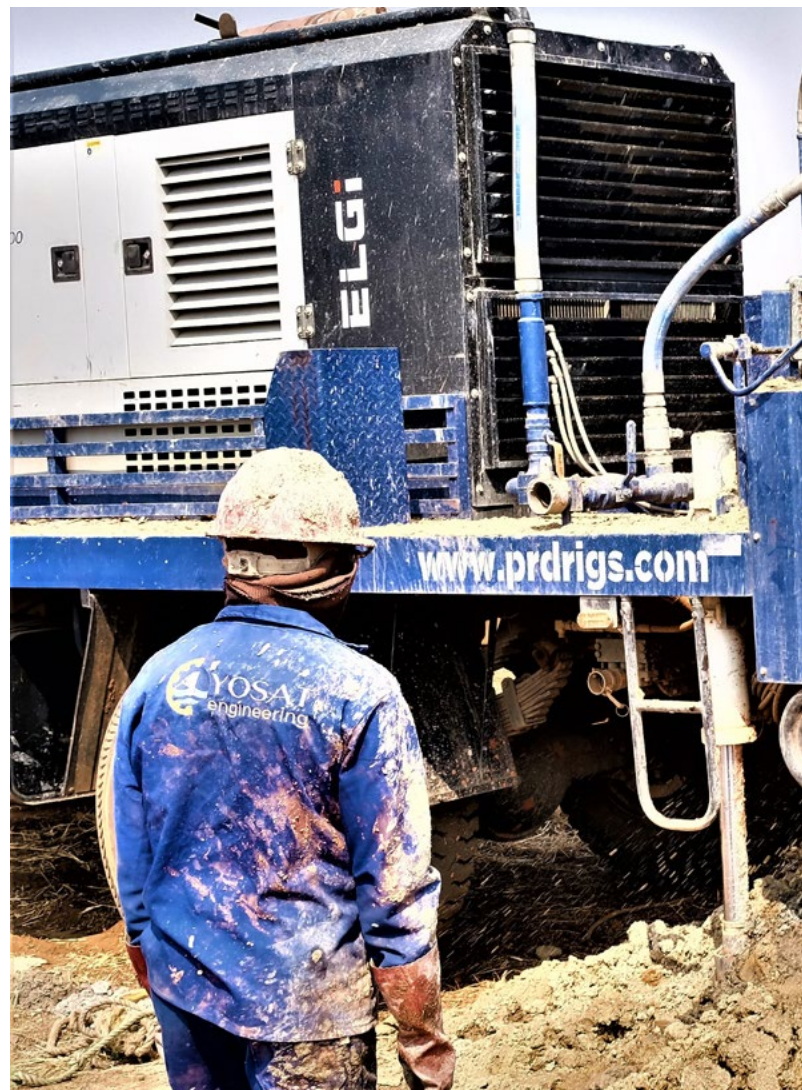
■ The local community women sort and prepare the onions for drying. Kuwala_2023.

**FROM THE FIELD TO THE FORK, IT'S A
COMMUNITY EFFORT TO BRING IN THE HARVEST.**

DRILLIN' FOR WATER

PROVIDING A SUSTAINABLE WATER SOURCE FOR THE FRUIT TREES.

Kuwala continues to expand the several acres of farmland to provide a continuous food supply for the school. The campus sits on 30 acres of land; Kuwala has acquired 60 acres of farmland to date. Kuwala has planted a variety of fruit trees that demand consistent watering. In addition to the other crops, trees, fruits and vegetables, it was time to drill a new borehole for a water well to supply the Farm. The experts and the machinery arrived, surveying the site for a good location, and the drilling began. The new borehole is 54 meters deep using 18 three-meter drilling rods. The crew is delighted as the new borehole is estimated to yield 1 litre of water per second; this translates to a capacity to fill



a 30,000-liter tank in 8 hours. This results in more water per tree and an increased growing period for a healthier and more prosperous crop.

Preparations are underway for planting at the Farm! The crew rented a tractor, and the ripping of the land began. They expect this to continue for five days, so watch for future exciting news on the progress on the Farm.



■ Drilling of new borehole at Kuwala farm land. The farm land has fruit trees that needs consistent water supply. Kuwala_2023.



Farmers in Malawi often practice “ripping” the land before planting a crop as a form of conservation agriculture. Ripping involves breaking up compacted soil layers without turning it over, helps in improving soil structure, water infiltration, and root penetration. This method reduces soil erosion, retains moisture, and enhances soil fertility, making it more conducive for crop growth. In regions like Malawi, where water scarcity and soil degradation are prevalent, ripping becomes a vital practice to ensure sustainable agriculture and optimize crop yields.

A WELL OF PROSPERITY

SECURING WATER AND A SUSTAINABLE FUTURE AT KUWALA'S CAMPUS IN MALAWI.

In a world where climate change is no longer a distant warning but an immediate reality, especially for regions like Africa, the necessity for foresight and adaptive measures has never been greater. Recognizing this urgency, Kuwala's all-girls school campus in Malawi is taking monumental steps to ensure its community thrives despite environmental challenges. One of these steps is the drilling of a second well, specifically catering to the Campus farm's agricultural needs.

Water Security in Malawi: The Current Scenario. Water is fundamental, and its availability can shape the fate of communities. Like much of Sub-Saharan Africa, water scarcity is a looming threat in Malawi.



As per the World Bank³, only a fraction of Malawi's population has access to reliable clean water sources. Climate change exacerbates this, leading to alternating periods of floods and droughts, disrupting the consistent availability of water.

Benefits of a Second Well for Kuwala's Campus:

Direct Source for Agricultural Needs: The primary aim of this well is to cater to the farm's requirements. Having a dedicated source ensures that the agricultural activities of the school are never hampered, leading to consistent crop yields and food security.

Harnessing Rainy Season Run-offs: In an innovative move, the campus has designed the well to accommodate excess water run-off during the rainy season. Capturing and storing this water is crucial as it can be used during drier periods, ensuring a steady supply throughout the year.



■ The completed second well will supply irrigation to the fruit bearing trees during the dry season. Kuwala_2023.

Drip Irrigation: Conservation in Practice. Drip irrigation is recognized globally for its water efficiency. By adopting this method, the school ensures maximum utilization of every drop, reducing water wastage. The Food and Agriculture Organization of the United Nations⁴ acknowledges that drip irrigation can increase water application efficiency up to 90%, a significant leap from traditional methods.

Holistic Approach to Sustainability: The well complements the school's other initiatives, like solar panel installation, reflecting a holistic approach to sustainability. These measures signify Kuwala's commitment to achieving water, food, and power security.

Setting a Precedent for the Community: By undertaking such projects, the school sets a benchmark for other communities in Malawi. Demonstrating successful implementation can inspire similar projects across the region, amplifying the impact.

WATER CRISIS IN MALAWI

AND WHY KUWALA IS APPLYING WATER CONSERVATION PRACTICES AT THE CAMPUS.

01

In Malawi, 80% of the population has access to an improved source of drinking water, but about 4 million people continue to lack access to safe drinking water. Based on international standards, six percent of the population has access to a sanitation facility. Poor practices surrounding transportation and storage of drinking water make waterborne illnesses including cholera still commonplace. Approximately 78% of children under two years of age experienced at least one incident of diarrhea¹.

02

Drip irrigation can boost water application efficiency up to 80% compared to traditional methods. This is why we are installing this type of irrigation. Water is applied subsurface, near the root zone. In dry years, fewer weed seeds germinate between rows because there is less water available beyond the plant root zone².

03

Kuwala's holistic approach ensures food, water, and power security, even as climate change impacts intensify. These concerns are all connected.

The decision to drill a second well at Kuwala's campus is not merely about immediate needs. It's a visionary step towards building a resilient and self-sufficient community. By blending traditional methods with modern technology, the school is setting a precedent, showing that proactive measures can pave the way for a thriving future even in the face of daunting challenges like climate change.

Sources

¹USAid, [Link](#)

²[agmass.edu](#)

³World Bank, [Access to clean water in Malawi](#)

⁴Food and Agriculture Organization of the United Nations. "Water for Sustainable Food and Agriculture." 2017

WORKSHOP CONSTRUCTION

**A COMPLETE AND
BALANCED EDUCATION:
THE KEY TO SUCCESS FOR
MALAWI'S GIRLS.**

Offering choice, and a balanced approach to education is why we are building a workshop.

When finished it will house the donated tools and to offer vocational training in the trades to our Kuwala Girls. Sometimes the unconventional approach to a career is often the best approach to changing perceptions.

In the heart of Malawi, Kuwala stands as a beacon of hope for many young girls. As an all-girls institution, Kuwala is not just another school; it represents a lifeline, a chance at a brighter future for girls who, due to the circumstances of poverty, might never have had the opportunity to step into a classroom.

THE TRADITIONAL ACADEMIC PATH

Kuwala, rooted in the Malawi curriculum, has always emphasized the importance of academic subjects. From mathematics to the sciences, literature to history, the school ensures that its students receive a robust foundation in these core areas. This traditional academic path is crucial, as it equips the girls with the knowledge and skills they need to pursue higher education and various professional careers.

THE NEED FOR A BROADER PERSPECTIVE

However, the world is vast, and opportunities are diverse. While academic subjects are undeniably essential, they represent just one facet of the myriad skills and knowledge one can acquire. Recognizing this, Kuwala is taking a pioneering step by introducing a workshop aimed at educating its students about the trades. This initiative is not just about



■ The construction of new workshop. Kuwala_2023.

teaching girls how to wield a hammer or operate machinery; it's about expanding their horizons and showing them multiple paths to success.

WHY TRADES MATTER

In many parts of the world, including Malawi, trades are often viewed as a male-dominated field. However, this perspective is not just outdated; it's limiting. Trades offer a plethora of opportunities, from entrepreneurship to specialized jobs that are in high demand. By introducing its students to the trades, Kuwala is breaking down gender barriers and challenging societal norms. It's sending a powerful message: trades are not just for men, and women can excel in them too.

Moreover, for girls who might not have the means or inclination to pursue higher education, trades can offer a direct path to a stable and fulfilling career. They can become self-reliant, contribute to their communities, and even create employment opportunities for others.

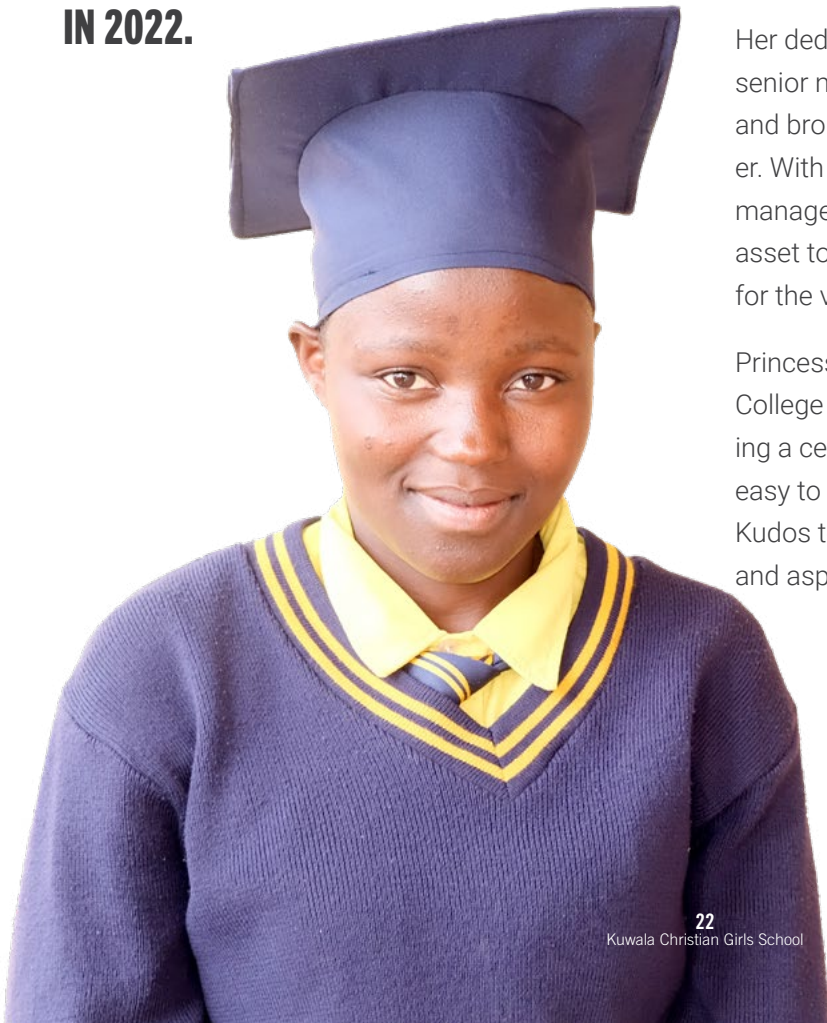
A HOLISTIC APPROACH TO EDUCATION

A complete and balanced education is not about choosing between academic subjects and trades; it's about integrating both. It's about understanding that every individual is unique, with their own strengths, passions, and aspirations. By offering a holistic education, Kuwala is ensuring that its students are well-rounded, adaptable, and prepared for whatever the future holds.

In a country where many girls from impoverished backgrounds don't get the chance to go to school, Kuwala Christian Girls School is making a difference. It's not just providing an education but a complete and balanced education. Doing so gives its students the most significant chance of success, shows them that the sky's the limit, and empowers them to reach for the stars.

SUCCESS STORY

**PRINCESS WAS A
STUDENT GRADUATE
OF OUR KUWALA
PIONEER CLASS
IN 2022.**



Princess, an entrepreneur with a generous spirit, transitioned from student to teacher in her community, exemplifying the transformative power of education. After completing her studies, Princess felt a calling to give back. She returned to her village and took on the role of an educator, imparting knowledge of English and essential life skills to the young minds there. Recognizing the immense value she brought, village leaders and parents came together to financially support her efforts, turning her passion into a thriving venture.

Her dedication and skills didn't go unnoticed. The senior management of Kuwala saw her potential and brought her on board as the maize mill manager. With meticulous record-keeping and time management, Princess became an indispensable asset to Kuwala while being a comforting presence for the villagers frequenting the mill.

Princess is furthering her education at DOMASI College of Education, pursuing her dream of becoming a certified teacher. Her track record makes it easy to envision her as a future educator at Kuwala. Kudos to Princess for her unwavering commitment and aspirations!



■ Princess, former Kuwala 2022 Grad. Maize mill house-used by the local community. Kuwala_2023.

ARE YOU A MEMBER OF A SPORTS TEAM OR A CHURCH YOUTH GROUP?



Are you planning a golf tournament, or are you a Church congregation looking for an International Mission? Please consider Kuwala if you are planning an event. Becoming a partner in fundraising to support an all girl's school in Africa makes a measurable difference in the students' lives when there is no other option for education. We would be happy to have a discussion. Check out our website at Kuwala.org or connect with us at info@kuwala.org

KUWALA CHRISTIAN GIRLS SCHOOL

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