



BRIGHT LIGHT ACADEMY and ENGINEERS WITHOUT BORDERS

@ *Ben-Gurion University*

FACT SHEET

Bringing food security and clean water to families on Rusinga Island

PROJECT OVERVIEW

Since December 2024, the Ben-Gurion University Chapter of Engineers Without Borders has been working in partnership with Bright Light Academy, a non-profit, non-governmental school on Rusinga Island, Kenya, and additional local stakeholders.

The long-term vision of the project is to enhance household food security and access to safe drinking water among the poorest families on southern Rusinga Island.

ABOUT ENGINEERS WITHOUT BORDERS

Engineers Without Borders – Ben-Gurion University (EWB-BGU) is a fully student-led volunteer organization bringing innovative, sustainable solutions to areas in need of solar power, clean water, food security, and clean waste recycling. Teams of graduate students and their leaders work on-site with local communities to help improve their quality of life.

ABOUT BRIGHT LIGHT ACADEMY

Bright Light Academy is a non-profit, non-governmental, primary and elementary school in Rusinga Island, Kenya. We offer free tuition, medical care, food, uniforms, and study materials to all our students.

LONG-TERM VISION

The overall goal of this collaboration between Bright Light Academy and Engineers Without Borders is to:

- Gain a deeper understanding of year-round agriculture on Rusinga Island, learning best practices, and building connections with local farmers.
- Increase household food security and reduce dependency on meager fishing income within local communities by developing home-based agriculture production using innovative techniques.
- Improve drinking water quality for the same population using low-cost, locally maintainable solutions.

Most residents of Rusinga Island get the majority of their drinking and cooking water from Lake Victoria, a severely polluted water source that's unsafe for consumption without purification treatment. Years of overfishing and water toxicity have made the lake an unsustainable food and income source in a community where extreme food scarcity is already a major component of life.

Collaboration on pilot models for water purification and agriculture can bring sustainability and food security to the island and its residents.

TO SUPPORT THIS PROJECT

BrightLightKenya.org



EWB PROJECT UPDATE - SPRING 2026

This February, the team implemented two pilot models at the school, laying the groundwork for long-term food security and clean drinking water for the Rusinga community. Classes were conducted for students and their families on agriculture, sustainability, and water purification. Families were counseled on climate change and the impact of environmental pressures and harmful living habits on health, nutrition, and local income.

A non-tech, low-cost water filtration device made from local natural resources was installed at the school and in several Bright Light family homes, with hands-on training in proper operation and clean water storage. A local monitor visits these families twice a week, testing filtered water for the reduction of pathogens and bacteria, and to confirm that the filtration devices are functioning correctly. Health assessment data is being recorded based on parental observations, especially the chronic gastrointestinal problems of children caused by drinking the polluted lake water.



The EWB team, students, and families established a new school planting field with a variety of seasonal crops with shorter growing cycles, high yields, and reduced water usage. Establishing a trend away from inadequate lake fishing towards sustainable, home-based agriculture can ensure ample food and income potential for local families. Students and families also learned and implemented ways to divert flooding on the school property during the rainy seasons. These early efforts represent the first steps toward building sustainable, community-driven solutions for clean water and food security on Rusinga Island.



EWB PROJECT UPDATE - SPRING 2026

