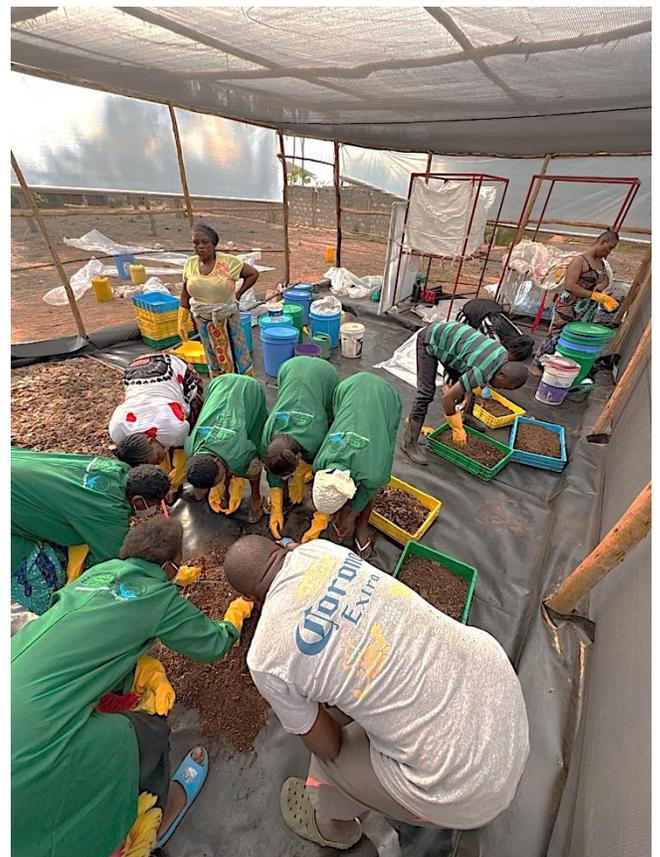




# RegisTree Composting Facility Project in Watamu, Kenya

A volunteer opportunity to build a permanent black soldier fly composting facility & composting toilet for a female-led social enterprise July 16-30, 2026

RegisTree (RT), a Kenyan community composting organization, and Building Humanity (BH) a US architectural and construction 501(c)(3) non-profit, are collaborating on a climate-resilient composting facility and pilot a community composting toilet system in Kilifi County, Kenya-one of the country's most poverty stricken regions, which suffers from illegal waste dumping, high disease loads due to lack of accessible sanitation options, lack of nutritious food due to poor soil structure, and low education/literacy rates. RT's community-led composting project transforms food waste into local jobs and revenue via selling compost, while also addressing the urgent educational, sanitation, and environmental challenges listed above. Last year, RT reached out to Building Humanity to request help constructing a facility for their growing composting operation, which holds enormous potential to benefit the wider community. To build a sustainable foundation for the composting project, and ensure its long-term community development impact, we are committed to working together over the next three years to:



- Replace the current composting structure – a wood and plastic sheeting construction prone to leaks and overheating in hot weather – with a well - equipped, permanent, climate - resilient, and weatherproof facility. (This is a major liability; the site nearly lost all of their larvae recently due to the roof leak viewable [here](#).)
- Pilot an on-site composting toilet for sanitation and ecological waste treatment, which will then be replicated in other high traffic sites in the community.
- Expand waste separation, composting, and sanitation education to 1,000+ people in year one, and hundreds in the following years.
- Support 500 local farmers with compost/larvae, and 250+ people with safe sanitation.
- Create revenue-sharing opportunities and jobs for dozens of local women and community members.

Founded in 2022, RegisTree began as a mangrove restoration initiative before pivoting to food waste composting in 2023. They started with worm composting, and although successful, they found that the worm system didn't allow them to compost scraps including oily foods, meat, and dairy effectively. With less than \$4,000USD in initial grant funding, RegisTree launched a Black Soldier Fly (BSF) composting project, completing their first pilot successfully in early 2025. BSFs can handle all food waste – including oil, meat, and dairy – and have the additional benefit of yielding larvae for poultry and fish operations. Based on the success of the pilot, the project has now grown to involve 21 community members, including 19 women between the ages of 17-60, who are from a local conservation group and who participate in a revenue sharing arrangement with RegisTree. RegisTree also operates food - waste removal contracts with four local establishments (three restaurants and one villa that serve the tourism sector), and sells compost and larvae within the community. They have buyers for all of the compost and larvae that they can produce. RegisTree's work is supported by partnerships with local conservation groups, the

Watamu Municipality Stakeholder Association, and collaborations with the local government and businesses.

**Brief Description of the Situation**

Kilifi County faces severe challenges:

- Sanitation Crisis: Open defecation is common, especially near beaches and schools, resulting in high rates of childhood diarrhea, a very significant health risk linked to child mortality.

- Poverty and Poor Soil: Kilifi is among

Kenya's poorest counties, with low literacy and poor soil structure that hinders food



production. The soil lacks nutrients and organic matter that are required to yield good crops.

- Rampant Illegal Dumping: Weak collection systems have led to visible illegal organic waste dumping sites, posing risks to people, animals, and the environment.
- Foreign-Dominated Tourism Economy: Most restaurants and tourist sites are foreign-owned, generating waste but not investing in local solutions.

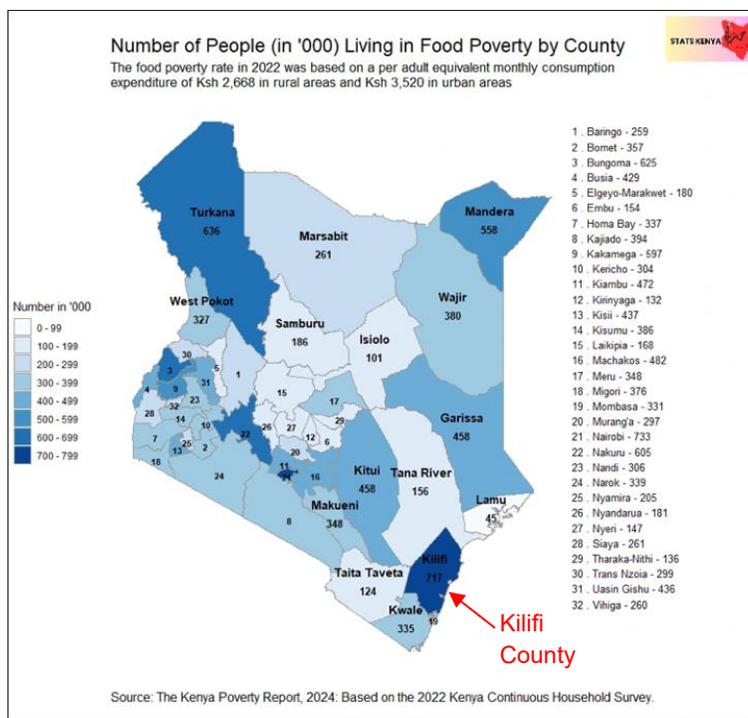
Despite progressive policies among municipalities, enforcement is lacking, and community groups such as RegisTree fill acritical gap in both environmental and public health. RegisTree writes:

“Health and sanitation isa dire issue in the community that we work with. Our immediate neighbors at the black soldier fly (BSF) project site would be our first priority for composting toilets as a co-benefit. According to the Kilifi Department of Health, and the 2019 census statistics Kilifi County was ranked among the top 15 counties in Kenya practicing open defecation, and among the top 10 in diseases due to poor sanitation and hygiene such as diarrhea,

skin, and eye disease among other sanitation diseases. From 2023/2024 period, Kilifi County department of health recorded a total of 104,618 cases of children with diarrhea in health facilities as result of poor sanitation and open defecation. Given the current circumstances, the County Government of Kilifi is open to support towards their goal of being free from open defecation and related public health issues. Additionally, with many of the communities living close to the mangrove ecosystem, and using the mangrove forests as toilets, this would be a welcome solution and contribution to protecting this fragile ecosystem that is already at risk from deforestation.”

## Project Design

The major goal is to construct a permanent, climate-resilient building at the composting facility to replace the current makeshift structure. The community came together to build RegisTree’s first composting set-up. This low-cost option allowed them to get going, but it is unsuitable for long-term use and is risking the operation through vulnerability to weather including heavy rains and high temperatures. As highlighted above, the project recently nearly lost all of their current crop of



larvae due a major leak in the plastic tarping currently used as roofing. A video of this leak can be seen [here](#), and a video of the current site's construction can be seen [here](#).

Year 1 Objectives:

- **Facility Design:** Building Humanity will assist in the design of a new composting site and building for RegisTree, which will include separate areas where they can set-up new equipment needed to professionalize their compost operation.



- **Facility Construction:** Replace current beam and plastic tarp structure with a permanent, ventilated building (timber/iron/UV-treated roofing, concrete slab, solar dryer). (Here is another video clip of the [current facility](#), which allows you to see how the larvae are currently being managed. The new building will accommodate more efficient management.)
- **Composting Toilet:** Design and build an on-site composting toilet, piloting safe humanure management for use on fruit trees and ecological restoration. (RegisTree has a partner that restores mangrove forests and will test public interest/adoption of humanure with them. If adopted, this can become a revenue stream; if not adopted, RT will explore on-site uses.)
- **Education:** Launch training on waste separation and composting at clean-up events and partner sites.
- **Look into Additional Revenue Sources:** For example, possibility of adding carbon credits into the portfolio to increase profitability of compost (for example, Plan Vivo).



## Special Skills Needed

The following specialists would be given priority as volunteers.

- **Composting Toilet Specialist** – The project includes the installation and optimization of composting toilet systems. A specialist who can assess site conditions, guide proper construction, and train local staff on long-term maintenance would be highly valuable
- **General Construction** – Volunteers with general construction experience—carpentry, masonry, basic repairs, or site preparation—will be essential for a wide range of ongoing tasks.
- **Medical** - A person with medical experience or knowledge would be an asset for the team to help check in with fellow volunteers. Building Humanity will have CPR & First Aid certified staff on hand, but additional participants with knowledge would be valuable to the team.



## STEAM Education

During the volunteer event, STEAM activities will be scheduled, in partnership with Friends of Arabuko-Sokoke Forest, for schools within the last remaining dry coastal forest in East Africa. Our volunteers bring a breath of skills including various types of engineers, architects, sustainability experts, etc. Volunteers will participate in activities such as “Conservation through Sports” and collaborate on activities with Junior Rangers, who are children learning about elephant behavior, biodiversity, and land restoration. We will organize a STEAM Day where we will set up 6-10 different activity stations for the children to explore STEAM through experiments, crafts, and projects. While they participate, they will be inquiring, observing, and experimenting in a fun and engaging manner.

# Preliminary Itinerary

Day	Date	Time	Activity	Meals	Accommodation
1 / Thursday	7/16	-	Arrive in Watamu	Dinner: Preorder dinner option from Butah Gardens to pickup when you arrive. Or choose independent dining depending on arrival times.	Butah Gardens
2 / Friday	7/17	Morning + Dinner	Sight See at Gede Ruins Dinner: Prawn's Lake	Breakfast: Butah Gardens Lunch: Box Lunch Group Dinner: Prawn's Lake	Butah Gardens
3 / Saturday	7/18	All Day	COBEC Mangrove Tree Planting	Breakfast: Butah Gardens Lunch: Group Lunch w/ team at COBEC Dinner: Independent dining (no scheduled group meal)	Butah Gardens
4 / Sunday	7/19	Morning - Afternoon	Dabaso Youth for Green Future	Breakfast: Butah Gardens Lunch: Group Lunch w/ Youth Group Dinner: Independent dining (no scheduled group meal)	Butah Gardens
5 / Monday	7/20	All Day + Dinner	Build @ RegisTree Site in Gede	Breakfast: Butah Gardens Lunch: Box Lunch Group Dinner: Kokomo	Butah Gardens
6 / Tuesday	7/21	All Day + Dinner	Build @ RegisTree Site in Gede	Breakfast: Butah Gardens Lunch: Box Lunch Dinner: Independent dining (no scheduled group meal)	Butah Gardens
7 / Wednesday	7/22	All Day + Dinner	Build @ RegisTree Site in Gede	Breakfast: Butah Gardens Lunch: Box Lunch Group Dinner: Kibo's BBQ Dinner	Butah Gardens
8 / Thursday	7/23	All Day	STEAM with FoASF in Arabuko Sokoke Forest	Breakfast: Butah Gardens Lunch: Picnic with the staff of FoASF and community members of the Forest Dinner: Independent dining (no scheduled group meal)	Butah Gardens
9 / Friday	7/24	All Day + Dinner	Build @ RegisTree Site in Gede	Breakfast: Butah Gardens Lunch: Box Lunch Group Dinner: Ocean Sport	Butah Gardens
10 / Saturday	7/25	-	Free Day	Breakfast: Butah Gardens Lunch: Butah Gardens Dinner: No organized meal	Butah Gardens
11 / Sunday	7/26	-	Free Day (Option : Dhow Cruise ~\$60-90pp)	Breakfast: Butah Gardens Lunch: Butah Gardens Dinner: Independent dining (no scheduled group meal)  *For those choosing to book the Dhow Cruise, meals are included in the cruise cost	Butah Gardens
12 / Monday	7/27	All Day + Dinner	Build @ RegisTree Site in Gede	Breakfast: Butah Gardens Lunch: Box Lunch Group Dinner: Crab Shack	Butah Gardens
13 / Tuesday	7/28	All Day	Build @ RegisTree Site in Gede	Breakfast: Butah Gardens Lunch: Box Lunch Dinner: Independent dining (no scheduled group meal)	Butah Gardens
14 / Wednesday	7/29	All Day + Dinner	Build @ RegisTree Site in Gede	Breakfast: Butah Gardens Lunch: Box Lunch Group Dinner: Butah Gardens End of Build Party	Butah Gardens
15 / Thursday	7/30	-	Depart From Watamu	Breakfast: Butah Gardens Lunch: Butah Gardens	

## Project Volunteer Costs

The total cost for volunteer participation is **\$2000 USD**. Each volunteer also commits to raising an additional **\$500 USD** minimum for the costs of the project. Volunteers are expected to reach this target by the start date of the trip.

A non-refundable **\$250 deposit** is required to hold your spot.

Donations made toward the cost of construction are tax deductible and receipts can be provided to donors. We recommend volunteers ask their family, friends, coworkers and local office/business line for support. Additional fundraising events are also a great idea. We will send volunteers a booklet to assist in fundraising efforts.

Included in event costs are the following:

- Community Engagements with two local NGOs, COBEC (Community Based Environmental Conservation) and Dabaso Youth for Green Future
- STEAM Day and other activities at Arabuko-Sokoke Forest
- Transportation to and from the building site at Gede, group dinners & planned group activities
- Accommodation in double occupancy room (single occupancy room can be requested for additional \$150)
- Select Meals. Breakfast and lunch are provided at/by Butah Gardens, 5 group dinners at local restaurants, and meal at the 'Goodbye Party'. (See Itinerary for scheduled meals. A list of recommended dining options will be provided for any meals without a scheduled group arrangement)
- Water & nonalcoholic drinks at meals
- Gede Ruins Tour, includes tickets and guide
- Volunteer T-shirt
- Personal protection/safety equipment

This cost **does not include** flights to or from your home city or country; airport transfers (Malindi Airport is approximately 45 minutes from Watamu at ~\$30 one way, and Mombasa Airport is approximately 4 hours from Watamu at ~\$60 one way; group pickup coordination can be arranged to limit cost); alcoholic beverages; snacks; optional excursions such as the Dhow Cruise in Watamu; or souvenirs. For any meals provided as part of the group itinerary, participants who choose not to participate will not be eligible for reimbursement.

## Get Involved

You can find more information on registering for this project on Building Humanity's website:



[www.buildinghumanity.org/kenya2026](http://www.buildinghumanity.org/kenya2026)

For questions or to discuss additional project information, contact Erin Colshan

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