



Smart Energy Saving Training for a Green Future

The training programme focused on two key affordable low-cost technologies:

i) **Improved cookstoves (ICS) - jiko kisasa:** These locally made, insulated stoves utilize less firewood than traditional fires. By reducing the need for fuel, they directly decrease the pressure on local forest ecosystems.

ii) **Fireless cookers:** A green technology that acts as insulated basket to complete the cooking process without further fuel use. Normally, food is brought to boil on an improved cook-stove, then quickly transferred to the fire-less cooker, where the food continues to cook for minutes or hours depending on food type, using retained heat.

Training and entrepreneurship

The energy saving training sessions, held over 4 days focused not only on building the stoves but also on fostering a local business model. Participants were trained to:

- a) Construct (theory), repair and install stoves.
- b) Assemble fireless cookers using locally sourced materials
- c) Market and sell the products and services within their communities and even nationwide, turning bat conservation into an income generating activity, and creating a sustainable local business enterprise.



“ I used to spend many hours a day searching for firewood and cooking. With the new stove and the fire less cooker, I only use a few pieces of wood. I have more time to take care of my family and also the cave-forest ecosystem which is a habitat for Hildegard’s tomb bat and sympatric species is safer” Saumu Mwanziwi (Vice Chairperson TTGSC CBO.

“ I have interacted with some of the energy saving training participants and they have great testimonies about how efficient the cook-stoves are in terms of fuel, time and health wise, on behalf of all community members we request that Angaza Vijiji and BCI have more of this cookstoves installed in homes and institutions” Mwandazi Renge (Chairperson – Handicrafts enterprise)

“We really like and appreciate what Angaza Vijiji and BCI are doing to us, energy saving cookstoves and fireless cookers are new technologies which a great number of the locals have never seen nor heard of, we are forever grateful and looking forward for more of this capacity building trainings and support” Salim Rimo – Chairperson TTGSC CBO.

Impact on Bat Conservation and Community

By curbing deforestation, the energy saving cookstoves and fireless cookers protect the cave – forest ecosystem essential for diverse bat colonies including the endangered Hildegard’s tomb bat. Additionally, the improved cookstoves and fireless cooker significantly reduce household air pollution, improving the health of women and children.

Women, youth and people living with disabilities were trained as cook-stove entrepreneurs, creating jobs and saving money on fuel.

The Tswaka Three Giant Sister Cave Community Based Organization with support from partner organizations like Angaza Vijiji and Bat Conservation International hopes to scale this enterprise proving that sustainable, community led solutions can create a balance between livelihoods and conservation.



Call to action

We are currently looking for partners who can support us not only in helping to help more households install cookstoves but provide seed funding for the trained artisans to be supported with setting up to start installing cookstoves in local homes as well us with the trained group of interested entrepreneurs to set up local production of liners to help reduce local firewood consumption and hence logging in the local kaya forest that is habitat for important biodiversity and a foraging area for endemic bats



COOKING FOR CONSERVATION: EMPOWERING COMMUNITIES TO PROTECT BAT SPECIES AND THEIR HABITATS.



Tswaka community- in the heart of Fikirini area, Lunga Lunga Sub county in Kwale County, where lush cave – forest ecosystem provides crucial habitats for diverse bat species including the endangered Hildegard’s Tomb Bat *Taphozous hildegardeae* and essential ecological services, a new, quitter revolution is taking place. A revolution that doesn’t need expensive and complex machinery or rather innovation, but rather, a simple, transformative approaches to a basic daily necessity: Cooking and not just cooking but utilizing energy saving approaches.

Between September 2024 and October 2025, .Angaza Vijiji in collaboration with Bat Conservation International and Lush Handmade Cosmetics launched an ambitious initiative “ Energy saving cookstoves and fireless cookers training” and trained 20 community representatives from the Tswaka Three Giant Sister Caves Community Based Organization in the production (theory), installation (experiential) and use of homemade energy saving cookstoves and fireless cookers (both theory and practical), directly linking Tswaka Community livelihoods with conservation of existing local fragmented forests and cave ecosystem which are bat habitats. We had 25 improved cookstoves installed in 25 households.

When cooking threatens biodiversity

Previously at the inception of the bat conservation project, many households in the Tswaka Community greatly relied on traditional “three-stone” open fires, which are inefficient, unsustainable, requiring large amounts of firewood, driving rapid deforestation, accelerating climate change, and causing severe health issues for women and children due to smoke inhalation. This environmental degradation also has a hidden victim “ the Hildegard’s Tomb Bat and sympatric species”. As the already fragmented cave – forest ecosystem was under attack due to forests being cleared for fuel, the natural, dark and roosting sites for bats were being destroyed affecting bat populations and their status on the IUCN RedList – including the endangered Hildegard’s tomb bat. This loss of habitat threatens the species population, which plays a vital role in pest control among other ecological and economic benefits. Furthermore, the arduous, daily, and time-consuming labor of gathering firewood falls largely on women and children who are also greatly affected by smoke pollution.