

## E-Cooking Hub Launch in Kitui County

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Fig 1: Dr. Joanes (ACTS) and Florence (CARITAS) declare the ceremony officially open.

### Introduction

The African Center for Technology Studies (ACTS) in collaboration with its partners from the Clean Cooking Association Kenya (CCAK), the Kenya Power & Lighting Company (KPLC), Gamos East Africa, the County Government of Kitui, and CARITAS Kitui, launched the e-cooking hub in Kitui on May 11th, 2022. ACTS is the Kenyan partner for the Modern Energy Cooking Services (MECS), which is a five-year program funded by the UK government. MECS is a global movement that connects people in different parts of the world intending to transition the population that is still relying on biomass for their cooking needs to modern energy cooking solutions.

ACTS began its working relationship with CARITAS last year in July when it issued 40 electric pressure cookers (EPCs) to the institution. The EPCs were then distributed to local champions within the region to help accelerate the adoption of e-cooking, which helped create a good working relationship between the two partners. During the launch, 10 more

EPCs were  
be used as an  
champion the  
was well  
presence of the suppliers from Sayona who were able to address any concerns related to the EPCs.

donated to the institution that is to  
e-cooking hub in the region to  
clean cooking agenda. The event  
attended and was graced by the

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Fig 2: Ms. Rachel, Dr. Joanes and Ms. Florence, and other participants viewing a wide range of electric cooking appliances

Also in attendance were Rachel Mwangangi, the Deputy Director, Ministry of Energy, Environment and Natural Resources, Kitui, and Dr. Joanes Atela, Director Partnership – Coordinator MECS, among others. According to Ms. Munyanyi, the clean cooking campaign in the county began in 2016 when 40 champions were selected from every ward at the grassroots level. These were then trained as trainers of trainers (ToTs) in the region to spearhead energy campaigns promoting clean cooking. In 2018, there was a ban on the use of charcoal that prompted the County Government of Kitui to intensify its campaigns on clean cooking by encouraging the use of briquettes. Ms. Munyonyi concluded by stating that initiating change using the bottom-up approach is a great idea that can steer rapid transformation. Echoing her remarks was Dr. Joanes, who claimed that the use of charcoal was not sustainable as it cannot help residents get adequate energy needs with the increasing population and rate of deforestation. Kitui contributes significantly to the Kenyan economy through micro-enterprises and has the potential to be an economic hub through

its leadership.  
of charcoal  
*tunachoma  
mpya sasa,*<sup>1</sup>

in Kitui stands at 54%. There is, therefore, an opportunity for ACTS, together with its partners, to work with the Kitui government through CARITAS to accelerate the adoption of e-cooking. A journey of a thousand miles begins with a step, and that is why the e-cooking hub is being launched in Kitui to offer training and access to information on efficient electric cooking appliances.

The narrative known in Kitui is that burning, *“Tunakata miti, mkaa, tunapaswa kutumia mbinu* said Joanes. The electrification rate



Figure 3: “I was the second one to use the pressure cooker here.” I took it up right away after they did the training here. However, we need a plan to help our mothers be able to repair them immediately and start cooking again. ” -Florence Ndeti, Caritas Kitui Director

### E-Cooking Opportunity in Kenya-Kitui

A big opportunity exists in Kenya for electric cooking to be tapped into owing to the diversified means of renewable energy that can be utilized to power the production of electricity. This is similarly made possible by the huge progress in electrification over the last 10 years; from 19% to 75%. Regardless of the progress, 91% of the Kenyan population still depends on the use of biomass for their cooking needs, with electricity use for cooking accounting for 0%. As such, more needs to be done to ensure that the 91% using biomass transitions to the use of clean cooking technologies such as the EPCs. It is worth noting that

<sup>1</sup> Translation: “We fell trees and burn charcoal. It’s time to consider new alternatives”.

the EPC income upfront cost, minimal nevertheless, is that several plans exist that may allow those with minimal wages to procure EPCs and repay them over some time.

brings the most value to low-earners. The only challenge is the which may be high for those with income. The good news,



Fig 4: Participants viewing a wide range of electric appliances displayed by Sayona Suppliers

Kitui was selected as an e-cooking hub because of its overreliance on firewood, which needs to change. Kitui is the 6th largest county in Kenya with 8 sub-counties and 40 wards. It has a population of 1,136,187, spread within 262,942 households. The poverty level in the county is 63.1% compared to 45.9% at the national level, according to 2019 statistics. This implies that the poverty levels in Kitui are relatively high. Moreover, 82% of the population still relies on the use of firewood for cooking, compared to 55% at the national level. Even so, 54% of households now have electricity access, with 17% connected to the grid and 37% with access to off-grid solutions such as solar home systems. The good news is that people are willing to shift to modern cooking solutions based on past engagements and studies. It is also a model county in developing an integrated Center for Economic Progress (CEP) and has the good political will to champion the clean cooking agenda. Besides, it has a long history of clean cooking and electricity access interventions, with CARITAS leading different research studies on clean cooking and energy delivery models.



Fig 5: Tom Randa of ACTS-MECS making his presentation on the opportunities for e-cooking in Kitui County

### Testimonies from the Local Champions

Four local champions got the chance to participate in the e-cooking demonstration alongside Wairimu of KPLC and Emily of ACTS. Different food items were prepared, after which all the participants got a chance to sample the meals. From the demonstrations, the champions became more informed as they learned new things. They then got the opportunity to share their experiences with the rest of the participants who were present.



Fig 6: Participants tasting the prepared meals

**Joel Mwendwa**





Fig 7: “Tukitumia hii jiko tutakuwa na miti mingi kwa maana hakuna mtu atakuwa anazikata ili kutumia kama makaa.”<sup>2</sup>- Joel Mwendwa, local champion

Joel is a middle-aged man residing in Kitui County. He is a beneficiary of the e-cooking project that was spearheaded by ACTS-MECS in partnership with CARITAS-Kitui.

Prior to receiving the EPC, Joel and his family mainly relied on biomass for their cooking needs and LPG. He mentioned the challenges he experienced with the use of LPG, “*Gas ilikuwa inaisha haraka...sahi bei ya gas imepanda...refill ilikuwa lazima ufike Kitui town.*”<sup>3</sup> However, things changed for him when he received the EPC. He attested to the shorter cook time and less electricity consumed by the EPC. While men are often not associated with cooking, he is championing the clean cooking agenda in Kitui. He encourages all households that have not yet embraced the technology to try and get one EPC for their home use owing to the multiple benefits associated with its use.

During the launch, Joel got to learn more about the functions of the EPCs, features he had never explored before. With the help of Wairimu of KPLC and Emily of ACTS, Joel and other champions were amazed to discover that they could use the EPC while the lid was not closed. For all the time that they had interacted with the EPCs, they had never explored the

<sup>2</sup> Translation: If we use the EPC we will have a lot of trees because nobody will be felling them to use as charcoal.

<sup>3</sup> Translation: The LPG got depleted fast..... The price of LPG has risen..... To refill an LPG cylinder, we had to go Kitui Town (presumably a distance away from his place of residence)

saute  
for heavy  
longer boil  
they could

ugali, fry their vegetables, and even make tea, among others. This realization filled them with excitement, and they acknowledged that they had been underutilizing the appliance despite its versatility.

To Joel, he is thrilled by the fact that he can prepare his githeri with approximately 0.4 units, an equivalent of Ksh. 12/13. Githeri is one of the main dishes for many communities in Kenya. Moreover, he mentioned that many people are normally discouraged by the upfront cost of EPCs and urged them not to focus on the price but on the value associated with its use. He also stated that suppliers should ensure that they have schemes that enable even low-income earners to purchase EPCs.

He concluded by pointing out the need to conserve our environment by claiming that, “once people stop relying on firewood and charcoal for their cooking needs, the status of the environment will improve.” As a consequence, it will be easier to attain the 10% tree cover recommended in Kenya since no one will be cutting down trees for purposes of cooking. Furthermore, the technology will play a great role in guaranteeing that toxic gases are not emitted into the atmosphere, and in the process, help address the problem of global warming.

**Betty Maingi**





Fig 8: “Kabla  
maka, kuni,  
rahisi na  
champion

*sijapata hii jiko, nilikuwa natumia  
na gas, lakini sasa maisha imekuwa  
raha.”<sup>4</sup>- Betty Maingi, local*

Betty is a middle-aged woman living in Kitui County. She is also a beneficiary of the EPCs that were distributed to CARITAS. Previously, she had been using charcoal for most of her cooking, supplementing it with firewood. She would use the LPG occasionally whenever there was a need.

When she received an EPC last year, life became easy for her as the time she normally spent cooking was significantly reduced, leaving her with ample time to do other things. Nevertheless, just like Joel, she underutilized her EPC as she only limited it to boiling her cereals. She was not aware that she could use it to prepare other meals by just clicking the sauté function. Besides, she states, “I usually boil my cereals first before frying them once cooked.” “It is only through the launch today that I got to discover that one can directly fry their cereals with onions, tomatoes, and other ingredients without having to boil them first provided they were soaked,” she added.

Initially, she was a bit hesitant to use the EPC due to the myths surrounding its use. “My daughters are still fearful and are not willing to try it out,” she stated. However, the launch presented a great opportunity for her that helped alleviate the fears that she had. Having to see several EPCs being displayed at once while different food items are being prepared with ease made her realize that it was a technology that she could depend on and use with confidence. She promises to share what she has learned with other women back home to help create more awareness about the same. She also promised to maximize its use and urged those who haven’t procured one to do so.

**Mary Katee**

<sup>4</sup> Translation: “Before I obtained an EPC I was using charcoal, firewood and LPG. Life is now easier and I am happier”



Fig 9: “Tangu nipate hii jiko, kazi nu kupress, kuweka, na kuenda.”<sup>5</sup>- Mary Katee, local champion

Mary is a middle-aged woman living in Kitui as well as a clean cooking champion in the region.

Prior to being issued with an EPC, she mostly depended on the use of firewood for preparing her meals, which she claims was costly. Besides, cooking was one activity she dreaded, maybe because of the process she had to go through before the actual cooking. Her worst days were when she had visitors and had to prepare different types of meals that would consume most of her time. The situation became worse when she had no one to help her with the cooking.

However, things became better for her the moment she started using an EPC. The appliance makes cooking more fun and interesting, and she always looks forward to it. She says, “Cooking with the EPC has brought lots of love in my home, to the point that when I am not yet at home, my husband gladly takes over and does the cooking.” She no longer has small disagreements at home with her daughter-in-law over cooking.

She particularly thanked the ACTS/MECS team for bringing the technology to them, which revolutionized their lives completely. Following suit as her champions, she urged the participants who have not yet embraced the technology to get one for themselves.

### Esther Mumo

<sup>5</sup> Translation: “Since I obtained an EPC, I only press, place (the food in), and go”



Fig 10: “Kuni ni expensive, na iko na kazi mingi kuipata.”<sup>6</sup>- Esther Mumo (right), local champion

Esther is a middle-aged woman residing in Kitui County. She is similarly a clean cooking champion in the region who is promoting the use of electric cooking.

For Esther, the EPC has taken her life to another level; a life of comfort with no worries, not having to think where she will get her firewood from. While she was relying on firewood, she used to get exhausted from having to cut and fetch the wood for her cooking. Alternatively, she had to hire someone to get her firewood, which was costly for her.

The EPC has thus changed everything for her. She can now do multiple things at the same time while cooking without having to be limited to the kitchen area. Cooking for her has become such a silent endeavor that her neighbours are left wondering if she no longer cooks as there are no signs of smoke coming from her home. In addition, when using an EPC, no one can know what is cooking since all the vapor is retained within the pot. From her body language, one could see how happy she was with the technology. Wanting to be sure that her sentiments were captured by all the locals who were present, she shifted to the use of her native dialect.

<sup>6</sup> Translation: “Firewood is costly and takes a lot of effort to obtain”

## Financing and

Breaking offering after-

most important issues emerging from the day's discussion. The attendees of the launch event included representatives from several women's savings groups. The day featured several discussions on the viability of utilizing their collective saving power to purchase EPCs and to pay back the cost of the device with the savings made from cooking fuel. In particular, the merry-go-round system has been used by many.

## after-sales services

down the high upfront cost and sales service locally were two of the



Figure 11: Due to the lack of local established shops with technicians to fix the faulty EPCs issues properly, Sayona PPS volunteered to train 1-2 representatives from Kitui on the repair of their appliances.

## Conclusion

The e-cooking hub launch in Kitui was a success, showing that there is a strong potential for e-cooking in Kitui and that CARITAS Kitui can play a vital role in making this change happen. The message was well-received by the participants, who offered to take the same message to their groups back at home. The leaders of the different groups agreed to report back to the CARITAS team after a week on the approaches they were going to use to ensure that everyone gets an EPC to ensure that e-cooking is embraced by the entire community. After an exciting day exploring a variety of challenges and opportunities, we left inspired by the future role of eCooking in Kitui County and excited to explore the opportunities in Makueni

and Kisumu launches.

during the forthcoming hub



Fig 12: E-cooking stakeholders. From Right Paul Osogo (ACTS), Florence (CARITAS), Dr. Joanes Atela (ACTS), Rachel Mwangagi (MoE), Dr. Jon Leary (Gamos), and Tom Randa (ACTS)

