

## Using less firewood, fuel-efficient stoves produce fewer emissions

*“I once went to Laropi Hospital and I was advised not to cook using three stone open fire cooking stoves.”*

October 2020—Something as simple as a new improved cookstove can have a large effect on the daily lives and health of Ugandan women and their families, not to mention the environment.

Margret Ondo’s caretaking responsibilities include her 3-year-old daughter, 7-year-old son, 13-year-old daughter who is a student in Araa primary school, and her 43-year-old husband. Ondo spends her days supervising, bathing, washing clothes, cleaning, cooking and cultivating food for her family. Margret is always the first to wake and the last to sleep in her household. At 5:40 a.m., she has already started a fire, swept her house and yard as well as those of her mother-in-law, cleaned dishes from the night before, prepared the family’s breakfast, and woken her husband and three children before she departs for her most time-consuming chore of the day i.e. cultivating the farms.



**Ondo Margret of Pakarukwe village enjoys cooking with ICS.**

This is all completed by 7:00 a.m., when Ondo, with her three-year-old daughter on her back, begins the 2-kilometer round-trip journey to the farm as well as collect firewood. She emerges five hours later from the dusty footpath with a hard-earned headload of firewood collected along the edge of Pakarukwe’s wood lots. The disappointment comes when the school-going children are waiting for food during lunch break due to the four hours cooking time with the three stone open fire stoves where food cannot be left on fire without burning. Firewood is increasingly scarce, and finding what little of it remains is no easy task. In Moyo district, Dufile sub county where Ondo and her family live, over 90 percent of households rely on firewood for cooking fuel. Ondo used to make the trip to collect firewood three times per week to meet household needs – not only that but she sometimes uses charcoal for cooking where 1 basin takes 3 days and spending 10,000 UGX in a week. In a month at least three (3) cases of long-lasting cough would not miss in the family.

That all changed in January 2020 when Rural Initiative for Community Empowerment West Nile’s Clean Energy Project introduced Ondo to a fuel-efficient cookstove. The four years’ project is implemented in partnership with Moyo District Farmers Association and fifteen (15) other CSOs across West Nile with funding from World Wide Fund for Nature Uganda Country Office (WWF-UCO). Now, Ondo reports that



she uses less firewood, less expenditure on charcoal and her children are safer around the new cookstove with no cough infections.

Ondo's previous cooking system consisted of three stones placed on the mud floor of her kitchen, with firewood inserted between the stones. Saucepans rested on top of the stones. Although mobile, the system produced an open flame, which filled the kitchen with cough-inducing smoke. Saucepans were not steady and sometimes tipped and spilled.

The environmental impact from the three-stone fire, which has been used historically in Africa, is also clear. Uganda's rapidly growing population and its growing demand for fuelwood have been driving deforestation and forest degradation in recent decades. The loss of Uganda's forests is a major factor contributing to soil erosion, which not only decreases agricultural productivity for Uganda's farmers, but results in siltation and sedimentation of rivers and loss in hydropower capacity, further impacting the country's economy.

Although Margret Ondo appreciates the benefits to her family and the environment, she admits that her favorite benefit is her time saved. "With the improved stove," she says, "**I collect firewood only once a week, food cooks quicker and my saucepans stay cleaner and take less time to clean**". She added, "**If you're cooking beans you only need to add firewood once.**" The stove has given her more time to care for my family and cultivate ground nuts, maize, sorghum and simsim."

With fewer firewood collection trips, Margret has saved five hours a week—time that she can now devote to caretaking and farming. Evident of the benefits from the 25,000 Ugandan Shilling stove, Margret got motivated to acquire a solar home system which is a one light system from the same project at 120,000 UGX. The solar has since increased the reading time for her school going children from one (1) hour to three (3) hours, Abiko Brenda who had repeated Primary two (2) for two years was able to get a promotion to Primary three (3) due to increased home reading time. One (1) liter expenditure for refilling the tadooba for lighting monthly at 3,500 UGX has been cut down to zero costs.

Margret and her family feel secure with the whole night solar lighting system, she now does some household chores at night and post-harvest handling activities for her maize. She is forever grateful to the project for bringing technologies which never existed in her village.

By 2020, the Rural Initiative for Community Empowerment – West Nile (RICE-WN) and her Clean Energy Project had supported 2,829 households in adopting improved cookstoves and solar home systems. These technologies have helped communities like Ondo Margret to adapt to their changing climate, conserve environment, and improve their livelihoods through labor and time savings. The project, which runs from 2017 to December 2020, works to increase access to renewable energy alternatives i.e. improved cook stoves and solar home systems amongst households in West Nile.