

CASE STUDY

Energy Efficient Stoves Project: Mamma Rukkiya

Mamma Rukkiya lives in a two roomed house with her husband and 3 children. She shares this house with her sister Fatuma. Mamma Rukkiya stays at home with the children while her husband works as a farmer. She makes a little money on the side by sewing and fixing clothes.

Mamma Rukkiya used to spend all day preparing meals for her family using the traditional three stone cooking method. This method of cooking consists of using three stones of a similar height to balance a cooking pot or pan over a fire. However, this method is highly ineffective and causes many problems.

- > Smoke from the fire isn't ventilated from Mamma Rukkiya's home which leads to considerable health problems for both adults and children.
- > Fuel, in this case firewood, is wasted as heat can easily escape into the air. Mamma Rukkiya and her family are collecting and buying considerable amounts of firewood just to stay fed.
- > Only one cooking pot can be used on the fire, consuming valuable time.
- > The open fire element runs a large risk to safety. Mamma Rukkiya and her family are susceptible to burns and scolding from uneven pot spillage. Blowing into the fire for oxygenation can cause hot embers to create burns to the skin, eyes and airways.



OVERVIEW

Together with CO2balance Toshiba TEC provided Mamma Rukkiya and her family with a new Energy Efficient Stove. Designed to burn solid fuels more effectively the stoves enable users to prepare food quicker and produce considerably less smoke and carbon emissions than the traditional 3 stone method. The stove helps users save valuable time and money all while reducing CO₂ emissions.

TIME SAVINGS

Since receiving the stove Mamma Rukkiya has been able to spend less time preparing and cooking food for her family. As the stoves burn hotter than their traditional 3 stone counterpart, cooking pots are able to heat up faster and cook quicker. Instead of spending all day preparing meals for her family Mamma Rukkiya is cooking meals in a dramatically shorter time.

More time can now be spent focusing on income generating activities such as clothing repairs and creation. Her sister Fatuma has also been able to help generate more income for the family through weaving makuti (palm leaf roofing).

IMPROVED HEALTH

With smoke and carbon emissions drastically reduced Mamma Rukkiya and her family have seen many health benefits. With Mamma Rukkiya's daughter Binti often helping in the kitchen smoke and ashes were irritating her eyes and throat.

Now Binti can help her mother with food preparation without the risk of damaging her eyes or developing any smoke related illness.

"Binti can help me with the cooking and because there is no smoke in the kitchen with the new stove, her eyes are not watering and burning."

"I Like Very Much That This Stove Means I Have Much Time To Do Other Things. You See, When I Cook With The New Stove, My Food Is Cooking Much Faster. This Means That My Time Is Saved. We Have Both More Time To Do Other Stuff."
– Mamma Rukkiya

LIVING CONDITIONS

Living conditions have improved for Mamma Rukkiya and her family. Large amounts of heat is no longer lost from the sides of the stoves, like the traditional 3 stone cooking method. The house is now a cooler, healthier temperature.

Binti and Hamisi, Mamma Rukkiya's son, can also enjoy a more habitable home and play inside without running the risk of burning or scalding themselves.

"I am happy because the totos (children) can run around and play around the stove and I do not have to be afraid that they will get burnt and injured. This stove is safe and it is good for the health of my family"

For information on the Carbon Zero Scheme:

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To find out more about CO2balance, the Energy Efficient Stove Projects and other carbon management solutions please visit www.co2balance.co.uk

