

A Guide to Make your Own Maendeleo One-pot Jiko - (GTZ)

Introduction



Women have been the focus of utilization of energy because cooking for the family has always been one of their primary tasks. Most women in the rural area cook with firewood. Finding firewood is becoming increasingly difficult.

About the liners



The Maendeleo one pot stove is built around a special pottery liner. This liner automatically gives the proper size door, firebox and pot rests which assures top efficiency.

A tongue supports the wood so air can flow below the wood into the fire, and so that long pieces of wood will not fall out. By being protected from wind and excess air the fire burns hot and clean.



Advantages

1) *Cooking with the Maendeleo Jiko means children are safe from accidental burning so common in kitchens using the traditional three stone fires which have no protective covers.*

2) *Cooking in a smoke free kitchen with happy children around makes a mother contented.*

3) *Your Maendeleo Jiko is easy to make. If you get your friends to help you, it will only take an hour, and the children will love to take part. If you build your Maendeleo Jiko properly, and take good care of it, it will last for about five years.*

Steps to follow

First, buy a stove liner from your local dealer. It only costs sh. 33/-much less than the price of one chicken, or 30 eggs. This is the only money you will spend. All the materials are in your homestead.



One wheelbarrow load anthill soil and 1 wheelbarrow load flat and round stones

or 1 wheelbarrow load murrum

or 1 wheelbarrow load soft under soil mixed with sand and a karai or half debe fire ash

3 debes water

Tools

Your tools are sufurias, debes, karais, panga, shovel.

Steps to take -



Put everything near the site of your new Maendeleo Jiko, the best place is where you cook with the three stones



Level the floor where you are going to put your jiko, and sprinkle it with water to make it damp but not muddy.



Put the jiko liner in a sufuria of water to get it wet all over.



Mix the soil and ash properly with a shovel, and then sprinkle it with handfuls of water, mixing all the time, just like making cement. The best way to do this is to have one person turning the soil, and the other throwing on the water.



Now you must find out if you've prepared the soil properly.

Test it by squeezing a handful of wet soil into a ball, and dropping it onto the ground from your hip.

If the ball falls and breaks, it is too dry. so you will have to add more water.

If it collapses into mud it is too wet, so more soil will be needed. The ball must hold firm.



Measure a space of at least two flat hands away from the wall, check that the liner is still wet, and place it wide side down on the floor outside that space.

Draw a circle around the liner with a stick, or with your finger. Then place your hands flat on the floor again, against that line, and mark it. Remove the liner.



Wet some flat stones in a sufuria and, starting from the outside.



put them in the inside circle, making sure that no stone is on top of another one.

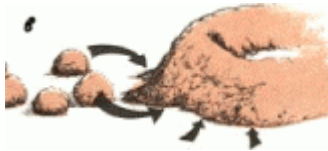


Slap wet soil into the gaps and push everything down hard.



Then cover the stones thickly with soil, and beat firmly with a panga.

Roll soil balls in your hands, and push them in hard around the outside. This is the foundation of your Maendeleo Jiko.



To make sure your cooking sufurias will stand straight on the jiko, put a sufuria on the liner just as if you were going to cook with it, and pour in some clean water. Push the liner into the foundation until the water in the sufuria is level.



Get some more flat wet stones, and fill the outside circle just like you did the inner one. Leave the door way open wide.



Your jiko liner is in place now, so don't lean on it. Add the rounded stones. Its very simple. First add the stones, then fill the gaps with the prepared soil mix and put on a thick layer of prepared soil.



Three layers of stone and soil should be enough to bring the outside wall level with the top of your jiko liner, but the wall height depends on what you are going to cook on your jiko. Women who cook ugali every day prefer a low wall, those cooking githeri like it higher.

12

Don't forget to finish the outside with mud balls at each level. Then level the jiko top and sides firmly with a panga.



There's just one more thing to do before you leave your jiko to dry for three days. Air must be able to flow freely so that your Maendeleo Jiko does its work properly and saves kuni. A tongue to support the firewood will give you this free air flow.



Flatten the grate both inside and outside. And put down more wet flat stones a hand's length away from the fire opening and a thumb's distance away from the stove sides.



Build the stones up on the outside so that they will hold your firewood up at an angle. The stones must be at least three fingers high. Cover the stones with soil, and beat with a panga.



When your stove is completely dry, you might like to smear it with a mixture of ash and cowdung, or ash and cement. If you do, it will need another three days, a week altogether, to dry before you light your cooking fire.

Kitchen Management



Always keep your kitchen clean



Make sure you arrange kitchen items in such a way that minimizes walking distances within the kitchen area.



Make sure you repair your stove as soon as cracks appear by smearing



Store your firewood well to enhance drying



Sprinkle earthen floors with water before sweeping to minimize dust.



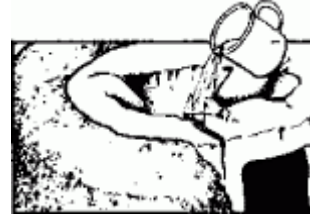
Cover cooking utensils



Stove Maintenance

Any cracks must be repaired

a Wet the area to help open the crack, and to help the soil mix to stick.



b Carve the crack open all the way to its roots.

c Force as many small stones into the crack as you can.



d Pack the crack with soil mix and smoothen