

11 Steps TO MAKE ECO-FUEL BRIQUETTES

MATERIALS

These materials can make up to 500-700 eco-fuel briquettes

Coffee husks	2 bags
Coffee/dry leaves.....	½ bag
Maize cobs and stems	½ bag
Dry banana peelings/potato peelings	½ bag
Metallic Drum/retort/kiln/carbonizer.....	1
Water	30 litres
Pan/basin.....	2
Stick (to steer).....	1
Cassava flour.....	5 kg
Sieve made of mesh or other material	1
Mortar and pestle/ crusher.....	1
Plastic bags.....	1
Mould.....	1
Small stove.....	1
Clay soil or ant hill soil.....	1 bucket



1 Collect and dry all the organic waste such as coffee husks, small branches, cutoffs after trimming coffee, dry leaves and small stems. You may also add maize cobs and stems, banana peelings, potato peelings and other organic waste.¹



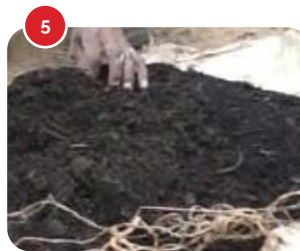
2 Place your drum in a spacious area and start putting the lighter materials like small branches and dry leaves into the drum.



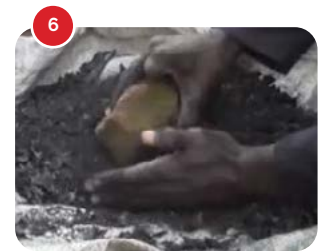
3 Light the dry materials with hot charcoal or a match to start burning the dry organic waste into black char. Keep adding more dry waste like coffee husks, maize cobs and dry banana peelings.^{2,3,4,5}



4 After adding all your waste and it has burned into black char, pour little amounts of water into the drum to put out the fire.



5 Get the carbonized material from the drum and put it on clean surface for cooling.



6 Use a stone and crush them until they become fine dust. You can use a sieve made of mesh. The small parts should fall through and the large parts will remain on top. Use the small parts that are sieved.



7 Boil water (25 litres) and place it in a basin. Add cassava flour (5kg) to the water to make it like porridge.⁶



8 Add clay soil into the water and cassava mixture to form a thick paste.⁷



9 Then add your mixture of carbonized material.⁸



10 Smear a little of the cassava solution that was set aside into the mould and place the carbonized material into the mould to form briquettes.⁹



11 After drying in the shade, place the briquettes in direct sunshine for another 1 to 2 days. They are ready for use.

TIPS

1. Sort materials to remove impurities such as plastics and stones. This makes it easier to light.
2. While burning, ensure that a flame is not created but rather it burns with smoke.
3. Do not use wet organic waste since it will not light up.
4. Place coffee husks, maize cobs, dry banana peelings interchangeably into the drum until it gets full.
5. Turn the materials as they burn to ensure that all the materials has been carbonized.
6. Keep aside about 5 litres of the mixture. It will be used to line the mould to make briquettes come out easily.
7. Stir continuously until everything is mixed evenly. This will make the briquettes heavier and last longer.
8. Knead the solution until it is firm or until you can form balls in your hands.
9. Put the wet briquettes in a dry place without direct sunshine to harden. They can take 3-4 days to harden.