

Miombo

The Biomass Circular Concept



The company, Miombo, provides technical assistance on rural development based on the principles of economic, ecological and social sustainability.

Miombo has identified improvement of the household energy sector as a leverage point to address a cluster of other development priorities including health, gender issues, natural resources management and climate change.

Miombo promotes The Biomass Circular Concept; a concept of sustainable use of biomass by employing a circular chain of activities.

The stove is clean burning, energy efficient and adaptable for households.



Stoves – a part of the solution

The Peko Pe stove is one of the most promising cooking stoves available. The stove was invented by Paal Wendelbo in the early 90's and named Peko Pe (No Problem) by women in Ajumani refugee camp, Uganda.



Household energy sources

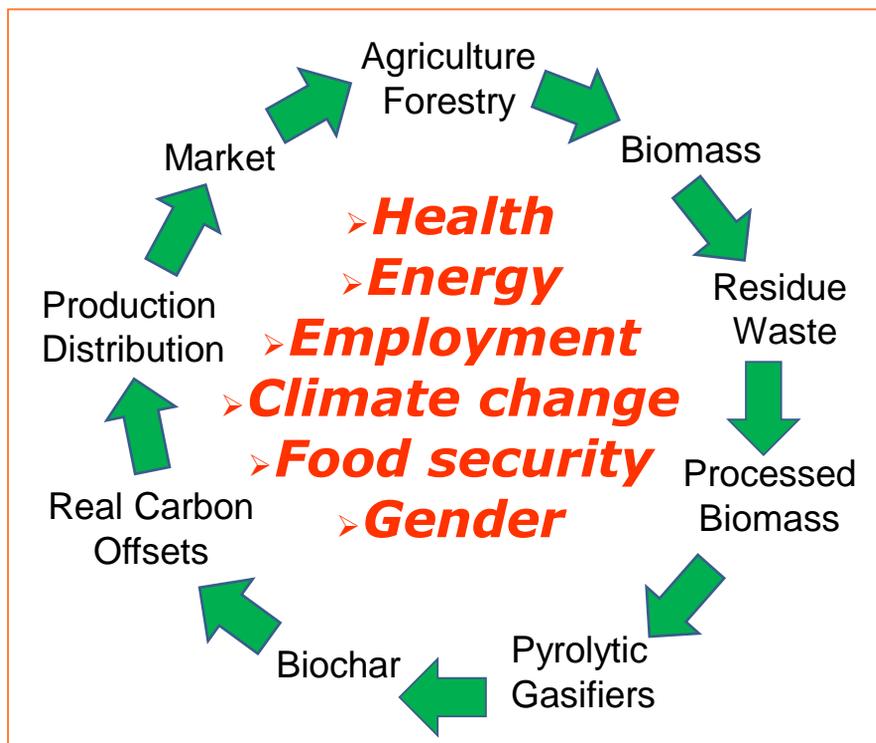
There is a need for alternative sources of energy to replace charcoal and firewood. The existing energy industry should be engaged and supported to secure a conversion to more sustainable types of fuel.



Carbon and soil benefits

The Peko Pe stove produce a carbon rich by-product, which is known as biochar. When added to soils, biochar will remain in the soil for hundreds of years and thereby effectively store CO₂ as carbon.

In addition to CO₂ sequestration, biochar has demonstrated a capability to facilitate increases in crop yields with reduced fertilizer use.



Miombo activities

- ✓ Projects on stove introduction and adaption in rural and urban households.
- ✓ Business development on processed biomass production and distribution.
- ✓ Business development on prefabricated stoves for local assembly.
- ✓ Stove development, accessories.
- ✓ Scientific tests and approval of stoves.
- ✓ Development of Carbon Offsets programs.
- ✓ Develop the link to forestry and agriculture.

Peko Pe

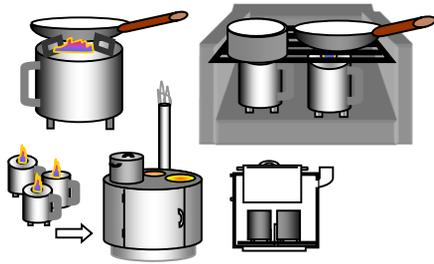
- the stove for all people



Why use the Peko Pe stove?

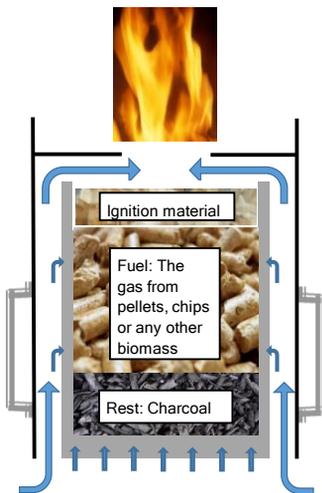
- Clean household cooking
- Save forest and climate
- Use less household fuel
- Create income and jobs
- Produce biochar

Type of fuel	Grass Straw Reeds	Wood Twigs Saplings	Corn cobs Cashew
Processing			
None			X
Stamping	X		
Bundling	X		
Chopping		X	X
Briquetting	X		
Crushing		X	
Pelletizing	X	X	

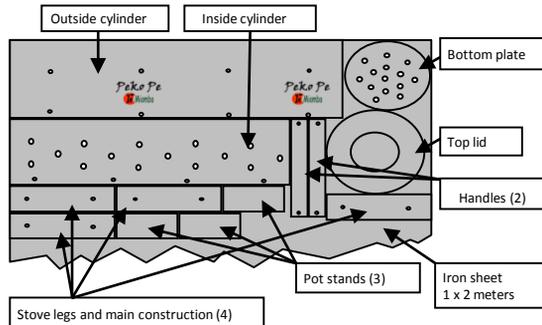


Production of biomass fuel

- Energy forests /agroforestry
- Collection of biomass
- Processing by chopping, briquetting or pelletizing.



Use dry biomass!



Production and assembly

- Flatpacks (above) with pre-fabricated parts for assembly by local tin-smiths.
- Flatpacks as templates for production by local tin-smiths and materials.

Operating instruction

- Remove ash and char from fuel chamber
- Fill up with dry biomass, not above the edge
- Add ignition material (stalks, shavings, shells, etc.)
- Ignite on top for proper flame
- Top lid on
- Utilize the open fire cooking/heating
- Empty fuel chamber - sprinkle water/soil on the biochar

