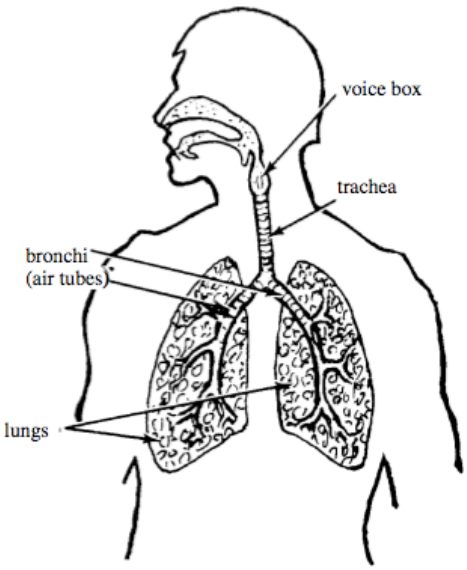
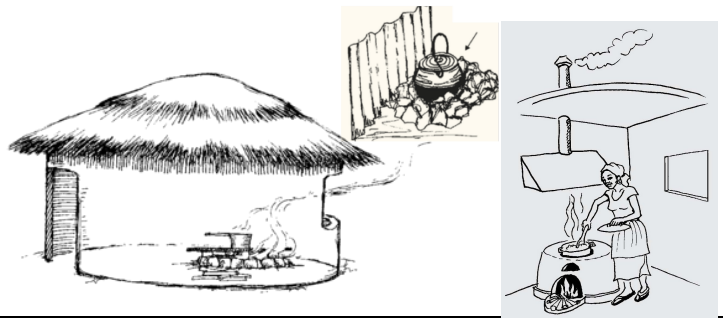
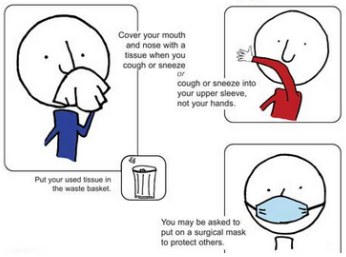
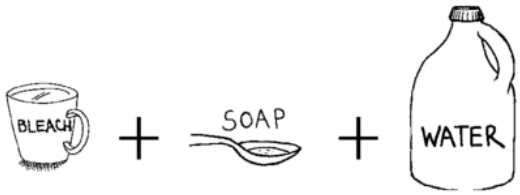
WHAT ARE GOOD LUNGS

1. GOOD LUNGS	• Good lungs help you breath easy and cough less • Good lungs provide your body with oxygen to help you feel strong • Good lungs help you work and play hard	
2. BREATHING PROBLEMS	• Certain habits or activities trigger breathing problems. • They are caused by exposure to unclean air or activities • Can occur at night, constant or sporadic	

PREVENTING BREATHING ISSUES

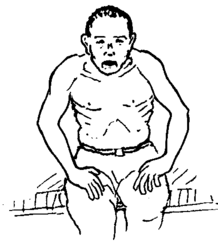
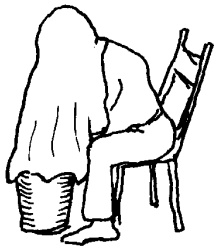
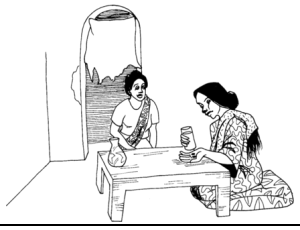
3. VENTILATE COOKING & HEATING AREA	• Have heat source and cooking source in home ventilated with a hole in the wall or a metal tube that is piped through wall or ceiling • Cook where air can move freely • Cook in turns with other women • Keep cooking pot covered	
3. DO NOT BREATH IN COAL/FUMES	• Avoid directly breathing in contaminated air from cooking, burning trash, traffic exhaust.	
4. DO NOT SMOKE	• Smoking causes lung problems. Many people get sick from smoking and many people die from smoking. • Smoking can hurt those around you, especially babies and children.	NO 

5.
WEAR MASK
	• Most common harmful fumes are:
	  ○ Heating/cooking
	  ○ Raw sewage
	  ○ Burning trash
	  ○ Pesticides
	  ○ Smoking
	• If fumes are unavoidable or temperatures are extremely low ALWAYS WEAR A MASK OR SCARF
		 

6. COVER YOUR COUGH	• Covering your cough will stop the spread of germs • The best way to cover your cough is by coughing into your elbow.	YES  NO 
7. AVOID POLLEN, MOLD, HUMIDITY	• Mildew and moist areas cause a potential threat • Make sure home floor is flat or slopes out at doorway. • Dirt floors can be filled in on corners or areas were water can pass • Allow for drainage • When plants are in bloom keep house closed or mouth/nose covered, especially at mid-day and afternoon when mold spore counts are highest. • **Get rid of mold by washing area with bleach and water**	**Mix**: 1 cup of bleach, ¼ teaspoon of liquid soap, and 4 liters (1 gallon) of water   (Adding one cup of vinegar will help this solution kill more germs along with the mold.) Wear gloves and a face mask or cloth over your nose and mouth, and keep windows open while washing surfaces with this bleach solution. Let the solution stay on for 10 to 15 minutes, then rinse with plain water. Wipe the surfaces dry to prevent mold from growing back. 
8. DUST FREE CLEANING	• Be careful and gentle when sweeping dust to not kick up dirt – avoid sweeping matter up into air • WASH IN HOT WATER AND PUT IN SUN • Remove carpet and rugs from home to clean • Dust frequently using water to avoid getting dust in air • Dust settles in cushions, mattresses and blankets.	

9. ANIMALS & INSECTS	• Keep pets out of home or at least bedroom • Control insects – exterminate them and set traps • Keep food covered, elevated and outside separate from home so animals and insects aren't attracted to housing area	
10. LUNG & BODY EXCERCISES	• Exercise helps increase your lunch capacity • Sit up tall and breath in deep, hold breath for a period of time. • Always warm up before strenuous exercise	

LIVING WITH BREATHING ISSUES

10. WHAT TO DO IN ASTHMA ATTACK	• Sit forward • Hands on knees • Hunch back • Expand chest • Relax	
10. STEAM & MOISTURE	• Fill a bowl with hot water and strong herbs like eucalyptus • Put towel over your head to capture the steam • Take several deep breathes to open up your lungs	
10. TB	• Not every cough is TB Tuberculosis • TB cough is deep and wheezy lasting more than 3 weeks. • Have your local medical worker test you. • This requires daily medication.	

11. SEE A LOCAL COMMUNITY HEALTH WORKER	• A cough can require medication if there is an infection in your lungs or the possibility of TB. • A community health worker will help you get tested and help you find access to medicine for an infection or medicine and regular care if it is TB.	 

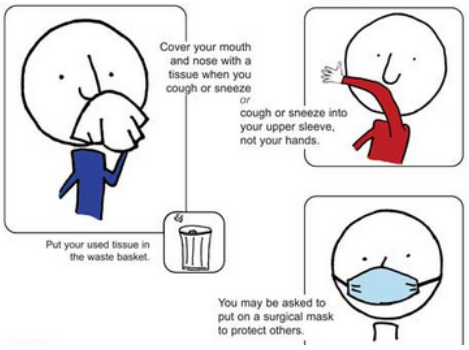
POSTER:

VENTILATE COOKING AREA

EXERCISE

DON'T SMOKE

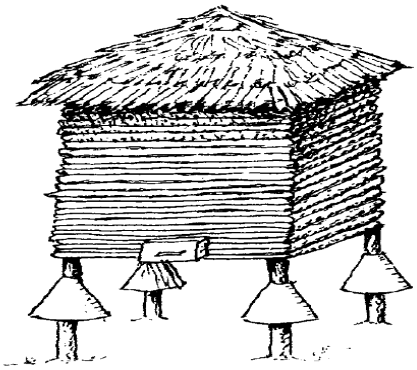
COVER YOUR COUGH



WEAR A MASK

VENTILATE HOME & CLEAN CLOTHES

KEEP ANIMALS OUTSIDE



CLEAN INSIDE HOME

PRESENTER POINTS:

PRESENTATION IDEAS	• Use poster and follow presentation • Demonstrate how to cover your cough or sneeze

GROUP PROJECT IDEAS	• MAKE A MASK (see Presenter Research) • MAKE COOKING POT (see Presenter Research) • MAKE A STEAM BOWL WITH HOT WATER & HERBS • SHOW EXERCISES FOR LUNGS & BREATHING

GIVE - AWAY IDEAS	FOR PATIENTS: • Scarf to cover mouth • Mask to cover mouth • Herbs for steam FOR COMMUNITY: • Poster • Teaching tools used in class • Properly ventilated cooking pot

BACKGROUND RESEARCH FOR PRESENTER:

Make a Mask:

This homemade mask was designed by Dr. Maramba of the Philippines. It will give some protection from chemicals and dust.

1. Cut one cup from a padded cloth bra.

2. Remove padding from the bra cup.

3. Cut some filter paper to make a pouch for a new pad that will fit inside the bra. Fill the filter paper pad with 100 grams of activated charcoal, making sure a layer of charcoal fills the entire filter evenly rather than settling to the bottom. Seal the paper so it will not spill, and place it inside the bra where the bra pad was.

4.

Fit the bra cup with elastic straps to hold it tightly to your face.
The filter should be aired out between uses. If used while spraying the most toxic chemicals, this mask is good only for 2 uses of 4 hours each. The charcoal must be replaced within 1 week, depending on the type of chemical exposure and how long it is worn.

Make a cooking pot:

How to make a stove and cooker that reduce smoke

The rocket stove

This is one example of a stove that is easy to make. You may need to adapt it for the fuel you use and the materials available in your area.

You will need:

- a large (5 gallon) can, such as a cooking oil can, soy sauce can, large paint can (well-cleaned), or a can that medical supplies were packed in. This will be the body of the stove. Cinderblocks or bricks may also be used, but a large can is better because it is thin and does not absorb as much heat.

- a 4-inch wide metal stove pipe with a 90-degree bend (elbow) in it. The pipe on one side of the elbow should be longer than the pipe on the other side. You will also need a straight stove pipe to attach to the

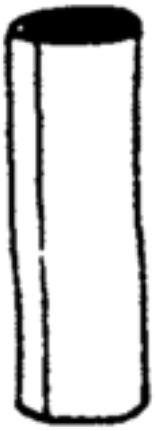
short end of the elbow.These pipes will be used to create the burning chamber and chimney for your stove. (4 or 5 tin cans with their tops and bottoms cut out can be used instead of stove pipes.)

- insulation such as wood ash, pumice rock, vermiculite, dead coral, or aluminum foil.

- tin snips and a can opener for cutting the metal.
- extra metal for creating a ‘skirt’ around the pot.
- grating or thick fencing for the top of the stove, where the pot rests for cooking.

How to make the stove:

1. Use the can opener or tin snips to take the lid off the big can. Cut a 4-inch round hole in the middle of the lid for the chimney. Cut another 4-inch round hole in the lower front side of the can, about 1 inch up from the bottom of the can, for the burning chamber. The holes you cut should fit around your stove pipe or tin cans.



2. Place the stove pipe with the elbow inside the can so that one end sticks out of the front of the can. Make 2 parallel cuts ½ inch apart at the long end of the pipe and bend the section back to create a lip. This way the pipe will not slip back into the can. The long section of this pipe will be the burning chamber (where the fuel burns). Attach a straight section of pipe to the short end of the elbow to make a chimney that ends 1 inch below the top of the can. Make a lip on this pipe, too, so the top of the pipe will not fall into the can.

Note: A chimney made from tin cans will only last 1 to 3 months, and then you will need to replace it. To prevent this, try making a fired clay chimney with a mixture of 3 parts sand and 2 parts clay. Put this clay around the chimney of tin cans. When the cans burn through, you will have a clay chimney supported by all the insulation packed around it.

3. Fill the body of the stove, around the chimney, with insulation such as wood ash.

can lid

4. Replace the can lid over the insulation and around the chimney.

5. Use a tin can to make a shelf inside the burning chamber. Remove the ends of the can and flatten it. Then cut it into a T shape that will fit inside the pipe. The top of the T will stick out and keep the shelf from slipping inside. Place a brick or rock under the outside part of the shelf to support

the twigs while they are burning.

6. Use your grating or fencing for resting the pot on the top of the stove.

If you need to cook inside, place the stove near a wall with an opening in it. The smoke can climb along the wall and leave the building.

7. Make a skirt with extra metal. It should surround the pot, leaving a ¼ inch gap between the skirt and the pot at its base. For an even better skirt, make a double skirt and put insulation between the 2 sheets of metal.

The haybox cooker

Keep the hay cooker away from an open flame.

To save even more fuel, use a haybox cooker to keep food warm or to simmer it after it has come to a boil on your stove. This cooker can cut fuel use by more than half when cooking beans, meat, rice, or grains. Rice and grains will use 1⁄3 less water, because not as much water will evaporate.

Make a haybox by lining a cardboard box with 4 inches of hay (or use straw, sawdust, old clothing, feathers, chaff, cotton, wool, styrofoam, or

corrugated cardboard). Leave space inside the box for your cooking pot and for more insulation on top of the pot. The lid of the box should fit tightly.

When using the haybox cooker, remember:

- food cooked in the haybox takes 1½ to 3 times longer to cook than over a fire.
- beans and meat should be simmered on your stove for 15 to 30 minutes before going into the haybox. The foods may need to be reheated after 2 to 4 hours.

keep the pot closed and **boil meat dishes again before eating**. This prevents bacteria from infecting your food.

Stoves burn less fuel and produce less smoke when they have:

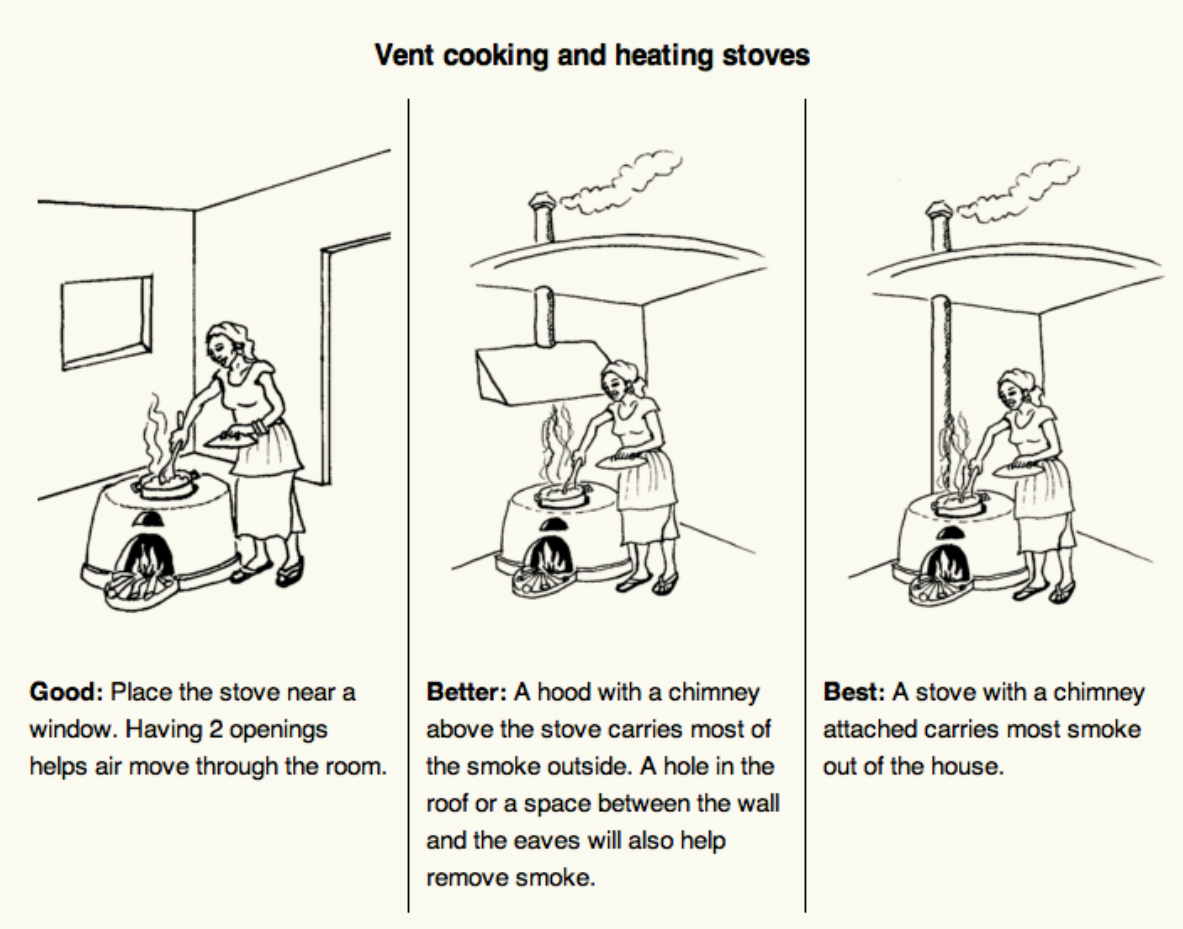
- protective lining (insulation) between the fire and the outside of the stove. Materials that trap a lot of air—like ash, pumice rock, dead coral, or aluminum foil—keep heat inside, instead of escaping out of the sides of the stove. This keeps the fuel burning hotly, which reduces smoke. Avoid using clay, heavy rock, sand, cement, and brick to prevent heat escaping from your stove because they do not trap enough air.
- chimneys inside the stove (see below) that help the air move around the fire. A longer chimney outside can also help cut down the smoke in the cooking area.
- 'skirts' (material around the cooking pot) to reflect the heat coming out of the chimney and direct it back to the pot. The pot then absorbs heat from all sides.
- a small burning chamber (see below) that allows you to burn one end of a piece of fuel in the chamber while the rest of the fuel stays outside. As the part inside burns, you can push the fuel further in.

How a good stove works

Here are simple ways to improve stoves so they will burn less fuel, produce less smoke, and cook foods more quickly.

A hot fire burns fuel completely. A fire smokes when fuels do not burn completely. To make the fire hot, use small, dry pieces of fuel.
A grate under the fuel for the fire creates a draft (moving air), helping the fire burn hotter.
Heat from the fire touches the pot. When more of the pot bottom touches the fire, heat goes into the pot and cooks food faster.
No heat is lost to the air because the pot sits right on the fire.
A chimney, hood, or vent to carry away smoke. This also moves air inside the stove, making the fire hotter and cooking food faster.
The stove is made with material that keeps heat inside the stove (insulation), so foods cook faster using less fuel.

Vent cooking and heating stoves



Improving open fires

The most basic “stove” is an open fire. It is sometimes called a 3-stone fire because in many parts of the world the fire is made with 3 stones to surround the burning fuel and to hold up the food or cooking pot.

With small changes, open fires can be made safer, create less smoke, and use less fuel. For example, burning only small pieces of wood which are dry and not “green” makes less smoke. Making a small wall of mud or stones around your fire pit can prevent accidents that lead to house fires or injuries from burns.

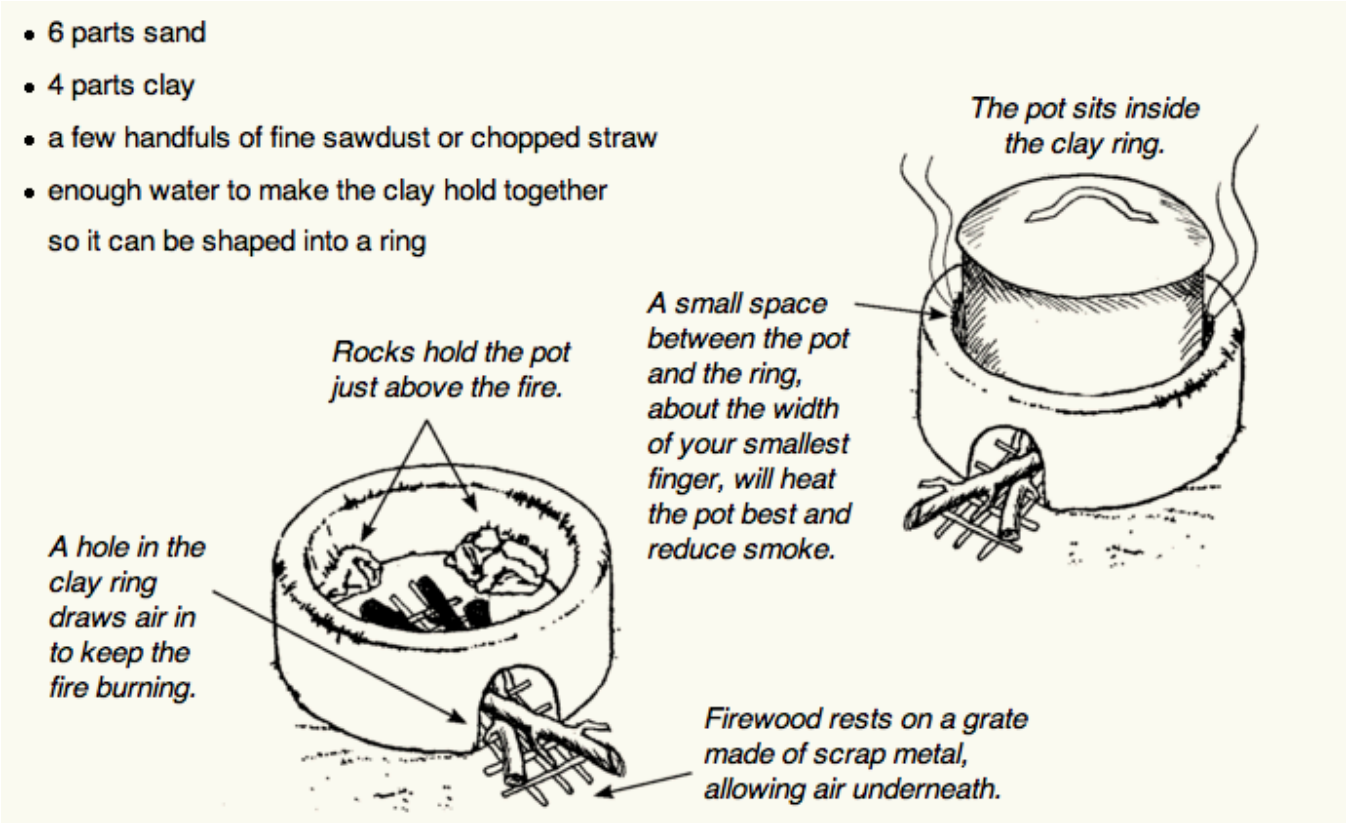
In a clean fire, just the tips of the wood burn, creating less smoke and using less fuel.

In a dirty fire, the wood burns all over, creating a lot of smoke and using a lot of fuel.

Simple clay stove

A simple clay stove with a metal grate to lift fuel off the ground takes very little material to make. It burns hot and clean, and uses less wood than an open fire. To make a simple clay stove, mix:

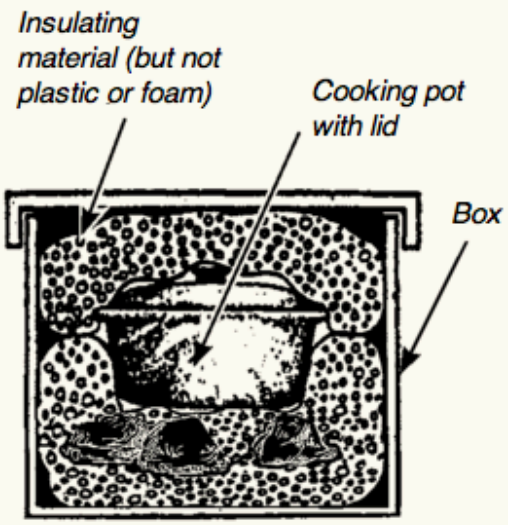
- 6 parts sand
- 4 parts clay
- a few handfuls of fine sawdust or chopped straw
- enough water to make the clay hold together so it can be shaped into a ring



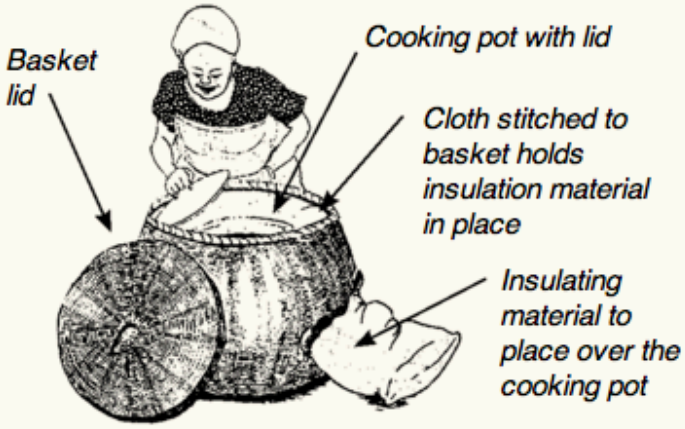
Haybox cookers save fuel

A haybox cooker is a way to prepare slow cooking foods (like stew, beans, and rice) and to keep food warm while saving fuel. A haybox cooker is made from hay or whatever insulating materials are available to you. It can be made from a cardboard box, a basket filled with straw or newspapers, or by simply wrapping your cooking pot in a heavy blanket or cloth.

After the food on the stove boils for a few minutes, remove the pot and place it in the haybox. The food will continue to cook for 2 or more hours. The more food in the pot, the more heat it will keep. Haybox cookers do not work well for small amounts of food. Let the cooker dry out after each use.



A haybox cooker made with a box.



A haybox cooker made with a basket.

An improved metal stove

The rocket stove is a small metal stove that can be used in temporary living situations such as refugee camps, or any place where people do not have the resources to build a full-size stove. It burns fuel cleanly with little smoke. The rocket stove can be made from inexpensive, locally available materials.