

OUR ECOLOGICAL FOOTPRINT

An ecological footprint can be big or small. It measures the impact we have on the natural environment. To minimise climate change and to keep the planet as healthy as possible we need to use energy with the smallest footprint, and to use as little as possible.

Energy efficiency

Efficiency is when a task is done in the best possible, least wasteful way – using minimum resources, and time. Energy efficiency is all about the amount of fuel used to do things. To cook food efficiently means to do it properly, with as little fuel as possible. We can adopt efficient behaviours, like turning off devices when they are not needed, and efficient technology, using equipment or energy sources that are least wasteful.

Efficient cooking technology

A three-stone fireside is less efficient than a metal improved wood burning stove, which is less efficient than an improved clay or cast iron stove. A kerosene pressure burner is more efficient than all of these, and a LPG gas stove is even better. A solar cooker is fuel efficient but takes a lot of time to cook food.

'Clean' 'Eco-friendly' electricity

We have seen how electricity can be produced using many different sources: using solar, fossil fuels, nuclear, wind, batteries or biomass. Each one has a different impact or footprint on the planet.

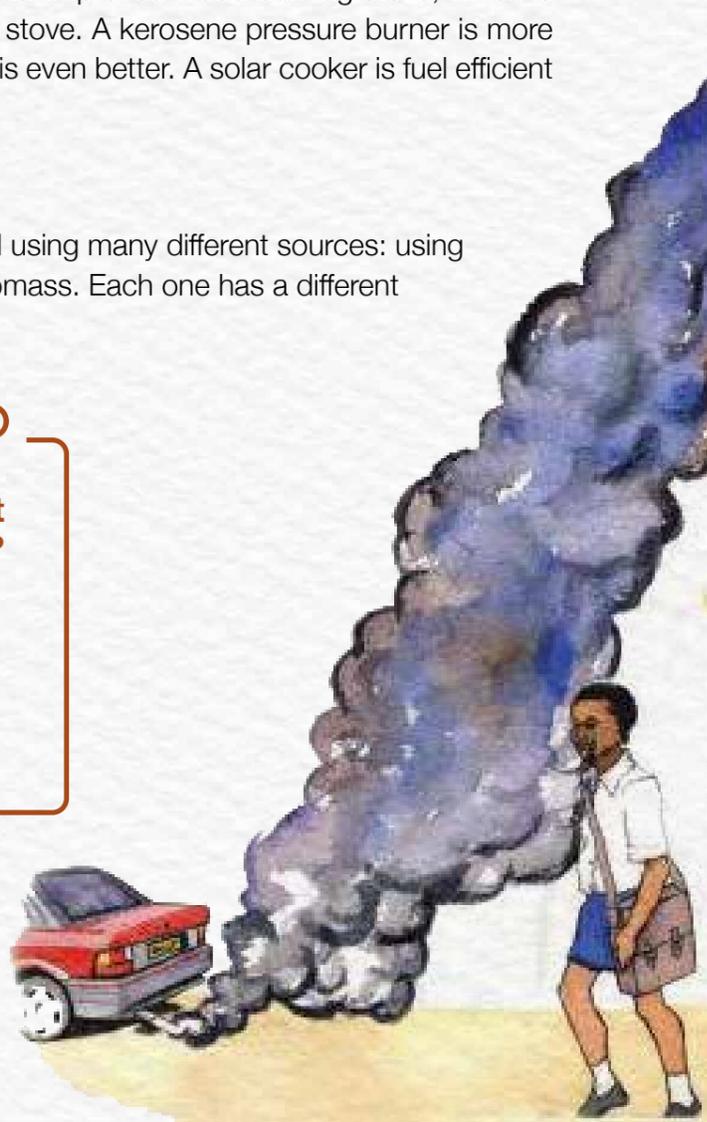
did YOU know?

What is the ecological footprint of different sources of electricity?

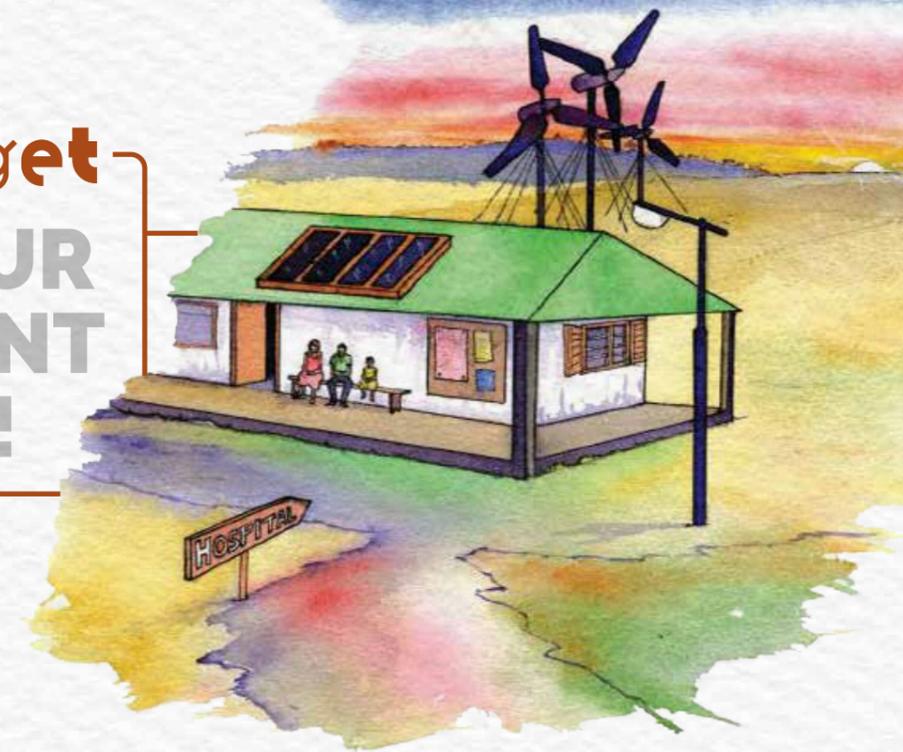
BEST: Renewables: solar / wind / hydro

MIDDLE: Biomass and biofuels

WORST: Fossil fuels, nuclear.



don't forget
KEEP YOUR
FOOTPRINT
SMALL!



Save energy! Turn off the lights!

Get switched on to switching off! Leaving TVs, computers and hi-fi equipment on stand-by uses 1% of all the electricity in many industrialised countries. Leaving your mobile phone charger switched on at the wall when you are not charging your phone wastes energy - disconnect it! Half of a school's fuel bill is often lighting! Turn off the lights when rooms are empty. If a classroom is empty for more than one minute, turn the lights off.

- If you have electricity there are lots of ways you can reduce the amount you use, to save the planet!
- If you use a fridge keep the back of it clean with space for air to flow then the cooling coils work efficiently.
- Open fridge and freezer doors as little as possible – if the cold comes out the motor has to work more.
- Fill empty space in a fridge or freezer - even ice, paper, bread or rice will reduce fuel consumption.
- Don't use fans or air conditioners if you can manage without.
- Turn off lights when nobody is in a room.
- Turn off gadgets when you are not using them and cook beans and stews in a slow cooker to save gas or wood.
- Get an electric car!

Insulation

When it is cold shut the curtains to stop precious heat escaping. Curtains and blinds will also keep heat outside when the sun is burning! How hot or cold your house gets and the amount of energy needed to keep it cool or warm enough depends on INSULATION. Insulation stops heat from passing through. Buildings can be insulated with cotton, grass, straw, sheep's wool, paper, clay bricks or straw. Build thick walls with layer of insulation in the middle.

If your roof is made of zinc think about putting layers of insulation in the loft. Include an insecticide, one that is biodegradable and safe.

Energy self-sufficiency

Most countries import their oil and gas. When producers increase the price it's difficult to pay the bill. We struggle to pay our household fuel bills and countries have the same problem, making life harder for everyone. Increasing the amount of renewable energy produced in a country reduces import bills and helps stabilise the economy. During its economic crisis Zimbabwe used locally manufactured equipment to make 50 million litres of cheap biofuel every year: without it cars would not have moved - imported fuel was too expensive.

Think about installing a biogas or solar system to power your own house, school or business. It won't create greenhouse gases like a diesel or petrol generator, is more 'climate friendly' than grid electricity, and will give you electricity with no bills.

The activities on the next few pages demonstrate how you can save fuelwood, cooking time and reduce kitchen smoke – win for you, win for the planet.

reflections

- Have you noticed climate change in your area?
- What has changed?
- Can you remember any rivers that used to always flow with water but now dry up?
- Can you still plant your crops on a certain date knowing the rains will come within a week?
- How are people adapting to climate change in your area? Do you think they need to?
- How can we help prevent negative effects of climate change?