

## Effects of deforestation in Malawi

### **Lesson Aims**

- To learn about deforestation issues in Malawi
- To learn how to analyse an image
- To learn how to work as a group

### **Rules for group work**

When doing group work, it is important to set down your rules so that the students know your expectations. Here are some suggested rules which you could adapt for your own purpose. It may be a good idea for the students to have them copied into their exercise books so that they can refer to them each time you do group work.

- Ensure that everyone can see the resources
- Ensure that everyone has the opportunity to contribute ideas
- Listen carefully and respect each other's ideas
- It does not matter if you cannot agree, a variety of opinions is good
- Ensure that the task is completed properly and in time
- Stop and listen to the teacher when requested

### **Background info**

- Over 90% of electricity in Malawi is produced by hydroelectric power.
- The majority of the electricity generated is used for industry and irrigation.
- 90% of Malawians live in rural areas. Only a minority of them can afford and have access to electricity in their homes.
- 90% of trees cut down in Malawi are used as fuel for cooking fires in homes
- Many homes use charcoal because it produces high heat quickly. However, wastes a lot more wood.

## **Tasks**

### **Viewing the images 15 mins**

- Put students into mixed ability groups or roughly the same size.
- Give each group an image
- Ask the groups to delegate someone to record the group's ideas
- Ask the groups to write a list of ideas of what they can see in their image
- Ask the groups to report back to the class and to show their image.

### **Script for the images 20 mins**

- The teacher hands out the 10 deforestation facts (see last page) and gives any extra explanation required (especially **highlighted** words).
- Students look at the phrases and decide which 2 phrases goes with their image
- Discuss as a class the correct order of the phrases and record on sheet.
- Ask a student from each group to stand at the front of the class with their image. Line up the students in the right order. Ask them to show their image and read out the correct phrase. In this way the students can see the images like a TV programme presentation.

### **Answers:**

Slide 1		Slide 2		Slide 3		Slide 4		Slide 5	
G	E	I	C	A	J	B	D	H	F

### ***Personal record of energy use in Malawi 15 mins***

- Complete the diagram on sheet or exercise book.
- Discuss as a class why the diagram is circular and what this means

### ***Plenary (What have we learnt?) 5 mins***

- Ask students to close their books
- Collect in the images and do not show them to the students
- Ask the students to remember the order of the images
- Ask a line of students to hold up the images as the class remembers them in the right order
- Ask students to remember the facts that went with each image

### ***Homework / Extension***

- Students could write a passage or create a poster suggesting ways to reduce deforestation in Malawi.

### ***Additional resources***

- There is second powerpoint presentation showing the images with text to explain the images and the diagram.
- There is a video can be used to show the images in the right order. To receive a copy email [global@notredamehigh.norfolk.sch.uk](mailto:global@notredamehigh.norfolk.sch.uk) . Ask students to take notes from the video. Then rewind the video and turn down the volume. Ask students to put up their hands when they see a scene that they can describe. Pause the video and listen to their narration then restart the video.
- The Malawi website also contains a lesson to have a debate between the different groups involved in creating a hydroelectric power station.

See next page for student handout of deforestation facts

1. Read the following phrases and choose 2 which best describe your group's slide.

A	A lot of the wood is burnt into <b>charcoal</b> to sell as fuel. One bag is made from an average size tree.
B	During the rainy season, the soil that was held in place by the roots of trees, washes into the rivers. This is called <b>topsoil erosion</b> .
C	Not enough trees are replanted and allowed to fully grow before they too are chopped down.
D	The water becomes dirty brown. As a result the fish and other creatures in the river cannot survive.
E	Some of the rainforest has been cut down for construction and furniture, but 90% of trees are chopped down for fuel.
F	The topsoil <b>silts</b> up the rivers and clogs up the dams for the hydroelectric power stations. It is a high cost to <b>dredge</b> the rivers which increases the price of electricity. So people use firewood for fuel instead.
G	Malawi once had vast areas of rainforest. Today, deforestation has devastated most of the forests.
H	90% of Malawi's electricity is produced by <b>hydro electric power</b> .
I	Mature <b>hardwood</b> trees take 20 years to grow and can live for hundreds of years.
J	The wood and charcoal are used for light, heat and for cooking. Firewood is also used to cook <b>mud bricks</b> to make them hard.

2. Write the letters of the phrases you chose in the boxes below your slide name.

Slide 1		Slide 2		Slide 3		Slide 4		Slide 5	

3. As each group feeds back its answers, put the correct letters into the remaining boxes.

4. Look at the diagram below. Put the phrases in the correct order.

many who lose jobs make and sell charcoal	trees cut down for fuel
more difficult for companies to trade	more expensive to produce hydroelectric power
rivers blocked with soil flow slower	top soil erosion in rainy season

