

Unit 10 - Resource Depletion:

10.1 Why are some non-renewable resources being used up so rapidly?

Modern life uses many resources, especially non-renewable resources:

- energy - oil, gas and coal (fossil fuels) produce most of our power - especially oil for vehicles
- minerals - iron, copper, bauxite for aluminium are vital to modern industry

Renewable resources should be OK, but we use them too fast:

- wood - we are using forests quicker than we can replant them
- fish - shortage of fish are due to over-fishing
- water - the rising global population means water is a scarce resource (it's hard to find)

Resource: anything that we need to meet our needs

Non-renewable resource: once it's used it's gone and can't be replaced

Renewable resource: renew themselves naturally - like the wind or trees

Recycling: resources which can be reused in some way

MEDCs use most of the world's non-renewable resources (the USA uses most of all). They are richer and so can afford to pay for as many as they want. The problem is that they are going to run out one day - what happens then and is it fair on people living in the future or people in LEDCs?

10.2 What are the effects of shortages of resources?

LEDCs often produce the raw materials - they dig up the minerals, drill for the oil or cut down the forests. MEDCs are often the consumers - they use the resources. The effects of shortages will be different because of this.

Effects on LEDCs	Effects on MEDCs
<ul style="list-style-type: none"> • pollution levels might improve • loss of jobs and money • economy could be dependent upon resource production - without the resource the economy fails • need to exploit resources in order to develop - so shortages mean they can't develop properly • shortages of food and water lead to malnutrition - food can't be imported because it's too expensive • deforestation can cause loss of habitat, soil erosion and environmental problems such as global warming 	<ul style="list-style-type: none"> • some MEDCs produce resources - so their income will suffer • resources become more expensive which hits consumers - e.g. high oil prices = expensive petrol • standard of living may fall - one reason we have a high standard of living is that we have cheap resources • need to develop alternative resources - e.g. renewable energy sources, which are expensive to develop • TNCs lose income

10.3 How might sustainable development be useful as resources run out?

Sustainable development is "development which meets the needs of the present without reducing the ability of future generations to meet their own needs"

This means that developments:

- should not damage the environment;
- should not deplete resources so much that people in the future can't live in the same way
- should try to promote local communities - e.g. provide jobs for local people rather than incomers

- recycling - cuts waste, saves resources and creates jobs. But not all resources can be recycled and it can be expensive to recycle as well as use energy. Some resources can be reused - e.g. milk bottles or electric wires.
- managing depletion - for example, using fish quotas to make sure that too many fish aren't caught. These are difficult to enforce and cause real problems for fishing communities as people lose jobs and income. But the only way to make sure fish stocks don't reduce further is to stop catching fish.
- renewable energy - using energy sources like wind power, HEP or biogas can help reduce the importance of fossil fuels. These are "clean" fuels which can produce plenty of electricity and make a real contribution to energy production. But they are expensive to set up and can cause problems for local people - e.g. wind farms.
- reduce resource use - this means we can make resources last for longer. Energy conservation is one way of doing this - using insulation, double glazing and thermostats to reduce power use are all possible. Walking, cycling or using public transport all helps reduce oil use as well.
- appropriate technology - using small scale, renewable resources can make a big difference - e.g. biogas digesters in Bangladesh reuse waste products and provides vital energy to villages: sustainable development.