verbraucherzentrale Bundesverband

Themenmodule
zur Verbraucherbildung

The Ecological Footprint and Sustainable Consumption

Unterrichtseinheit mit didaktischen Materialien
von Philip Devlin

Kurzinformation

Themenbereich:	Ökologie, Nachhaltigkeit
Titel:	The Ecological Footprint and Sustainable Consumption
Autor/in:	Philip Devlin
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Medien:	Internet, Activity and language resource sheets

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Overview of lessons

General topic	Sustainability
Lesson topics Lesson 1 Lesson 2 Lesson 3	 The ecological footprint Global wealth and poverty Responsible consumer choices
Author:	Dr. Philip Devlin
Subject:	English
Designed for:	Sekundarstufe II, Gymnasium or Gesamtschule
Time needed:	3 45-minute lessons
Preparation before class:	It should be sufficient to read through the Background information and the General introduction to lessons. Further reading is possible but not absolutely necessary – for sources see the Further reading list. Consult the Before the lesson section at the beginning of each lesson for information on making photocopies etc.
Media:	Internet, Activity and language resource sheets
Technical equipment:	Computer room with internet connection

Abstract

Sustainability is about the maintenance of acceptable living standards in developed countries and the reduction of poverty in developing countries. It has become an issue because the global population is currently consuming Earth's resources faster than the ecosystem can regenerate them and because western countries are using a disproportionately high share of those resources.
Scientists have devised a measure of our impact on the environment, the Ecological Footprint, which can also be used as an instrument for future policy and planning, and which individuals can use to assess their own consumption patterns.
Footprint analysis can also make us aware of the many "invisible" ways in which we use the Earth's resources. It is of crucial importance to reduce the global footprint, and this will require action on the part of governments, nationally and internationally. Equally it means that consumers in the western world will need to reflect on, and change, many of their consumer habits. This is an issue of particular concern to young people, as they are the ones who will experience the negative effects of failure to take action now. Sustainability and the Ecological Footprint are therefore topics which are ideally suited to the classroom.

Background information

Sustainable consumption – why is it an issue?
Since the 1960s, the global population has doubled from about 3 billion to 6 billion. According to current estimates, the number of people living on our planet will continue to grow and, by 2050, will have reached something between 9 and 10 billion. This will put increasing pressure on the finite area of productive land and water available to humanity, which is estimated at about 10.8 billion hectares, or less than 2 hectares per global citizen. The problem is made worse by the fact that our stock of bioproductive space is being eroded at an alarming rate – it has been calculated that every year our planet loses an area of fertile land equivalent to the size of Ireland.

We need to use nature's resources both to produce what we consume and to dispose of the waste caused by our consumption. According to current estimates, the area of bioproductive space being used to support our consumer habits is 2.3 hectares per global citizen – almost

half a hectare more than is actually available. This so-called “overshoot” occurs because the rate at which we are using natural resources is faster than nature’s own regenerative processes. Even if the current global population were to stabilise, this level of resource exploitation would not be sustainable in the medium to long term. And given the current predictions about world population growth, the issue of sustainability becomes more critical.

Hint
If we look more closely at current consumer patterns, the picture is even more disturbing. At the moment, about 80% of the planet’s natural resources are consumed by a mere 20% of the people living on it – the citizens of the rich “western” economies in North America, western Europe, Australia, Japan, etc. Two concrete examples illustrate to extent to which our western lifestyles make demands on space. It has been estimated that the area used by the city London to support its present level of consumption averages at 6.3 per Londoner – the equivalent of an area twice the size of the United Kingdom. The average Berliner needs somewhat less to maintain his/her present lifestyle - 4.06 hectares. Nevertheless, the total area needed by Berlin is equivalent to the area of the five eastern German federal states.

Western lifestyles are to a large degree models for the fast developing economies in the southern hemisphere. In particular, the “American way of life”, the most resource intensive on our planet, has an enormous appeal for millions in the developing world. And it is important to remember that the rate of population growth in developing countries is generally higher than in western countries. More and more people will be striving to achieve a western standard of living. The current growth of automobile traffic in China is just one example. It is clear that the “westernisation” of consumer habits in developing countries will place an enormous strain on land and water and – in the worst-case scenarios – could lead to the collapse of the planet’s ecosystem. At all events, there will be increased competition for the Earth’s limited natural resources, and with this competition the risk of political instability and even armed conflict.

Sustainable consumption is an issue, therefore, because it directly concerns the health of our planet and the peaceful co-existence of the peoples living on it. However, there is a further, ethical dimension to the topic of sustainability. As the above examples of London and Berlin illustrate, the space used by people in western cities vastly exceeds their administrative boundaries. What is true for the cities is no less true for most western nations, whose consumption patterns require an area of land and water considerably larger than the national territory. In other words, we maintain our current lifestyles by using the resources of other nations, often of poor countries with a low, or very low, standard of living.
The planet’s resources are not fairly shared among its citizens. In theory, it might be possible for western civilisation to continue using much more than its fair share of resources. But the moral case for a more equal distribution is difficult to refute. And in practice, we are dealing with a global problem, the solution of which will require the co-operation of all nations, rich and poor. To take a concrete example. If we want poorer nations to stop cutting down the forests which absorb our carbon dioxide emissions, we will need to offer something in return. We will need to share more fairly.

Sustainability will mean working to develop comfortable and dignified lifestyles which do not overtax the Earth’s resources, and in which all global citizens can participate. It is *the* challenge of the 21st century – a challenge which involves the international community, national governments and local authorities, and, not least, individual consumers. However, if we are to try to develop more sustainable lifestyles, we need an instrument with which can analyse our consumption patterns and assess their impact on nature. The ecological footprint is one such instrument.

The ecological footprint – a measure of the impact of consumption
The ecological footprint is an analytical tool devised in the 1990s by Bill Rees and Mathis Wackernagel. It focuses on the demands which me make on nature in four major areas of

consumption: food, goods and services, shelter (housing, water and energy use) and mobility. In each of these areas, it takes account of the entire chain of production, delivery and waste disposal. To give a simple example:

Example
An English fruit cake is made of wheat, sugar, dried fruit and other ingredients. All of these were grown in land, and their cultivation may have required the use of fertiliser, which will also have been produced using land. Energy is required to bake the cake. But before it is baked, the ingredients have to be transported to the bakery and, afterwards, the finished product to the points of sale. Here the land use would involve energy and the transport and retail infrastructure. If the finished cake is packaged in plastic and / or paper, land is required to produce these materials and to dispose of them when they are thrown away. And there is one other land input: throughout the entire process, the energy used creates carbon dioxide emissions, which need forest to absorb them.

In short, it is not always immediately obvious how much land our consumption requires. And developing the cake example, we could say that we use less land if we walk to a local bakery to buy a cake which is produced on site using locally grown organic ingredients and is not pre-packaged. However, our land use is more intensive if we drive to a supermarket to buy a packaged cake which was produced in a distant factory using imported, conventionally grown ingredients On its own, of course, the cake is just a drop in the ocean, but it is one of numerous drops and the ocean fills up quickly when we consider our entire consumption habits. The more land we use, the larger our ecological footprint.

As a tool for analysing consumption patterns, the EF can be applied globally, nationally and locally, as well as for households and individuals.

Hint
As mentioned earlier, the current global footprint is 2.3 hectares, but there are considerable differences not just between rich and poor nations, but also between the western economies. The United States, Canada and Australia are the world leaders in resource use with footprints of 9.7, 8.8 and 7.6 hectares respectively. At the other end of scale, the footprints for Nigeria, India and Pakistan are 1.3, 0.8 and 0.6 hectares respectively. Western European countries lie somewhere in between, with the UK, Germany and Italy having respective footprints of 5.3, 4.7 and 3.8 hectares. Within each country, there are also regional and local variations. At 6.3 global hectares, London's footprint is above the national average (2000 data, at http://www.london.gov.uk/mayor/sustainable-development/londons_footprint.jsp). Berlin's footprint, on the other hand - 4.06 hectares -is somewhat below the national average (2000 data, at http://www.unep.or.jp/ietc/Focus/berlin-eco_footprint.doc). Similarly, household and individual footprints can vary considerably depending on consumption patterns.

Creating an EF account requires the processing of extensive data, and though it may not yet be an exact science, it has become increasingly refined. Footprint accounts can be used by national or local governments as a basis for policy planning. It is also possible for households and individuals to keep detailed accounts as an aid to managing their consumption in more environment-friendly way. However, there are also several internet sites which allow individuals to calculate the size of their EF by answering a relatively small number of questions. One such site is the Earth Day Footprint Quiz (http://www.earthday.net/footprint/index.asp). Although such quizzes may not always produce totally accurate results, they are nevertheless a useful guide for individuals who are interested in working out roughly how environment-friendly their consumer behaviour is and what, if necessary, they could do to reduce their footprint size.

One way in which Rees and Wackernagel sought to underline the need for western civilisation to reduce its footprint was to calculate the number of planets which would be

needed if everyone on Earth had same lifestyle as a particular country, locality or individual. According to this calculation, we would need at least two *additional* planets to sustain the US consumption patterns throughout the world. Some scientists believe that this figure – at least three planets - is too high (See http://egj.lib.uidaho.edu/egj09/palmer1.html). However, there is no dispute about the basic problem, which is that our planet could not sustain a universal lifestyle similar to that of the United States, or even of Europe. This is the one of the main messages of footprint analysis, and it underlines the urgency of the need to develop alternative, less resource-intensive lifestyles – in other words to reduce our footprint size.

Reducing our ecological footprint

Reducing the global ecological footprint will require concerted action at international, national, local and individual levels. Agreement at international level can take a long time to achieve and even longer to implement, as is clearly illustrated by the timescale for the reduction of greenhouse gases envisaged at the Rio (1992) and Kyoto (1998) summits. National governments need to balance short-term cost with medium and long term benefits. They are often unwilling to press ahead with necessary measure unless parallel action is taken in competitor countries. And in democratic societies, they can be reluctant to introduce policies which they fear the electorate may not like. Local government sometimes moves faster, as it is often more directly involved in day-to-day problems – where and how to dispose of waste, how to manage traffic more efficiently, etc. And finally, individual consumers can and do influence the speed with which environment-friendly policy is adopted and implemented. One example of consumer power is the large signs in some British food stores which assure customers that none of the products on sale contain genetically modified ingredients. Pressure from below can be effective.

What people need, however, is information about the scale on which our natural resources are being overused and about the choices which they can make in order to tackle the problem. There are numerous small ways in which we can reduce our use of the planet's resources – through the length of time we shower, through the insulation of our homes, by using energy more economically, by buying environment-friendly products, or by deciding *not* to buy something which we don't really need. In many cases, it is not just the planet which benefits from more such behaviour – we also benefit financially. However, it would be less than honest to suggest that we can achieve sustainability simply by making a few minor changes. The fact is that our planet pays a high price for many of the goods and services for which we pay very little.

Hint

To take one example: fifty years ago, a holiday in Australia was unthinkable for the vast majority of ordinary European citizens. Now, anyone with an average income can afford it. The point is not to put Australia out of bounds. However, it is important for people to know why cheap air travel on today's scale is a luxury which the planet cannot afford. Informed citizens are more likely to accept, even to demand, prices which reflect the real cost of their actions. Paying prices which reflect the cost to the environment of what we consume is another means of reducing our footprints. And it is a key to sustainability.

In making the case for sustainable consumption, it is important to use appropriate communication strategies. Making people feel guilty about the size of their footprint is probably *less* effective than appealing to their sense of responsibility. It is natural for people to be concerned about their own health, and it would be no less natural for them to take an interest in the health of our planet, if it is clear that their actions affect not just their own future, but also the future of their children and grandchildren. The goal should be to create an awareness of what people *can* do, and not to lay down what they must or mustn't do. Similarly, we should not lay too much emphasis on the need to give things up, but rather offer people a coherent perspective, the vision of a lifestyle which is no less enjoyable than what we have at the moment, but which is a good deal less wasteful of precious resources.

The ecological footprint – a topic for the classroom

In many ways, young people are an ideal audience for the message on the need to reduce our footprint size. It is they who have most to gain and least to lose from a shift towards more sustainable consumption patterns. On the one hand, they have an obvious interest in helping to ensure that their corner of our planet is still an agreeable place to live when they reach middle and old age. On the other hand, although their level of consumption is generally higher than that of young people a few decades ago, their consumer habits are not so firmly established as those of older generations. And their major consumer choices still lie ahead of them. Self-interest and / or idealism is likely to encourage them to consider the implications of the choices they will have to make.

One possible difficulty is that people in this age group do not always see themselves as consumers. They often think that being a consumer is connected with having a job and the income that goes with it. It is therefore important for them realise that even now they are constantly making consumer choices, that even now they have the power to make decisions which will benefit our natural environment. If, at this age, they can develop a habit of mind which automatically asks about the environmental consequences of purchasing a particular product or service, the chances of achieving sustainability in the future are greatly increased.

Further reading

The internet provides easy access to rich sources of information both on the general topic of sustainability and to specific aspects of it. Many of the sites listed below contain links to other relevant sites.

General information

- http://news.bbc.co.uk/hi/english/static/in_depth/world/2002/disposable_planet/
- http://www.rprogress.org/
- http://www.environment.govt.nz/footprint/
- http://www.ecouncil.ac.cr/rio/focus/report/english/footprint/
- http://www.renaissancealliance.org/issact/isspers/ecology/ecofoot.htm
- http://www.peopleandplanet.net/doc.php?id=1861

Countries

- http://news.bbc.co.uk/2/hi/country_profiles/default.stm (for an international choice of country profiles including some statistics)

Statistics

- http://www.worldfactsnow.com/ (useful statistics about different countries)
- http://earthtrends.wri.org/country_profiles/index.cfm?theme=6&CFID=387235&CFTOKEN=96819247 (statistics on the consumption patterns of different countries)

Specific topics

- agriculture and food http://www.nyo.unep.org/action/14.htm

climate change

- http://www.climnet.org/publicawareness/intro.htm
- http://news.bbc.co.uk/hi/english/static/in_depth/sci_tech/2000/climate_change/default.stm

development

- http://www.undp.org/

ecolabels

- http://home.tiscalinet.ch/hahn/eco_label.html
- http://www.smartoffice.com/gb6.htm

energy efficiency
- http://www.saveenergy.co.uk/appliances/whatis/label.cfm

fair trade
- http://news.bbc.co.uk/2/hi/business/2051691.stm
- http://www.fairtradefederation.com/mft.html

forests
- http://www.panda.org/about_wwf/what_we_do/forests/index.cfm

tourism
- http://www.uneptie.org/pc/tourism/home.htm
- http://www.eco-tip.org/

transport
- http://www.vtpi.org/tdm/tdm56.htm

waste disposal
- http://www.doc.mmu.ac.uk/aric/eae/Sustainability/Older/Waste_Disposal.html

General introduction to lessons

This set of lessons, which deals with various aspects of the topic of sustainable consumption, has been designed for students in the Sekundarstufe II. The three 45-minutes lessons have a parallel **structure**, while the **content** of each lesson has been organised so as to allow students to absorb the relevant information in stages. As well as giving students the chance to learn about the topic, the lessons also provide wide-ranging **language practice.** The **Lesson notes** provide you with step- by-step suggestions on how to deal both with content and with language in the classroom, together with a variety of ready-to-use activities and language resource material.

Lesson structure
Each lesson begins with a brief *Lead-in*, which is followed by four *Steps*. At the beginning of the Lesson notes for each lesson, you will find an overview of the lesson plan outlining the aim of the *Lead-in* and *Steps* together with timing suggestions.

Lesson content
In Lesson 1, students are provided with background information about the growing pressure on the Earth's natural resources and introduced to the concept of the Ecological Footprint. They also get a chance to calculate and discuss their own footprint.
In Lesson 2, students are provided with general information about how the world's resources are shared before they go on to make a detailed comparison of the levels of consumption in rich and poor countries.
In Lesson 3, students examine the ecological and social impact of consumer decisions and consider to what extent individuals can contribute to a healthier environment and a fairer deal for the poor, and in what areas governments need to act in pursuit of these goals.

Language practice
The activities in each of the three lessons give students practice at processing information (reading and listening) and communication and fluency (discussion, exchanging information). In addition, in Lessons 1 and 2, there is a focus on specific aspects of grammar and / or functional language. You will find details on these points in the overview at the beginning of the Lesson notes for each less lesson.

Lesson notes

As already mentioned, the Lesson notes begin with a brief overview of the Lesson plan, including a summary of the aims and content and timing suggestion. Timing can often be a problem, depending on the level and general ability of your class. Faster classes will probably work through the material more efficiently. On the other hand, students may wish to continue discussion of a particular topic longer than planned. For these reasons, the overview in the Lesson notes also contains suggestions about how to adapt your lessons if you find either that you are running short of time or that you have some time in hand.

The lessons have been planned to keep your preparation time to a minimum. Details about necessary preparation, mainly making copies, is contained in the overview at the head of the Lesson notes.

The Lesson notes contain detailed suggestions for treating the topic in class. The various activities and the language resource material are integrated in the notes at the points where it is suggested that you use them. This material is also collected at the end of the notes, so as to make it easy for you to make copies for your students.

You are of course welcome to adapt both the approach suggested in the notes and the activity and resource materials provided if you think that this would be appropriate for the class you are teaching.

Lesson notes

Lesson 1 – My footprint

Introduction
Most of your lesson will be taken up with introducing the background to the concept of the ecological footprint, activating the relevant vocabulary, and discussing the quiz results. Towards the end of this lesson, your students will do an online quiz to calculate the size of their ecological footprint. The quiz itself, which has 16 questions, should only take about 5 minutes. Afterwards, there is time for discussion of the quiz results.

Lesson structure		
Steps	Aim	Time
Lead-in	to provide a visual curtain-raiser for the topic	2-3 min.
Step 1	to introduce to concept of sustainability, and cover quiz-related vocabulary	10 min.
Step 2	to provide basic statistics about the pressure on natural resources	5-10 min.
Step 3	to make students aware of the extent which consumption habits depend on natural resources	5 min.
Step 4	to allow students to work out their own footprint and discuss the results	15-20 min.

Skills reading, listening, vocabulary, media competence, discussion.

Grammar focus future tenses

Language function reporting about a group

If short of time You could leave out the activity with quantifiers in Step 4.

If time permits With faster, more advanced classes, you could expand the last activity to include modal verbs of obligation and ability (e.g. I'll probably *have to* buy a car, I definitely *won't be able to* do without a car).

Before the lesson Make copies of the *Activity and resource sheet* at the end of the lesson. You'll probably also find it helpful to check out the quiz site in advance, at http://www.earthday.net/footprint/index.asp

Lead-in

• Draw a simple sketch on the board/OHP of a large foot on top of a globe and leave it there till the end of the lesson. Allow students to say what they think it means, but don't comment on their suggestions (if they aren't willing / able to make any, accept this). Tell the class that they'll have a clear idea of what the symbol stands for at the end of the lesson.

Step 1

Aim to introduce the concept of sustainable consumption and cover some of the more difficult vocabulary used in the quiz.

Time 10 min.

• Hand out the *Activity and resource sheet* for Lesson 1 and ask students to do **Activity 1**. Explain that they should read through the entire text to get the general meaning before they try to do the gap-fill.

Activity 1

Use these words / phrases to fill the gaps: conserving, consumers, consumption, frequently, lifestyles, processed and packaged, resources, sustain, waste.
We are all (1) … … … … … … … … , even if we don't work and have a regular income, and can't spend as much money as working adults. As consumers, we use the Earth's natural (2) … … … … … … … … in different ways. These resources are limited and, unfortunately, statistics show that the world population is using too much of them. Can we go on like this? Can we (3) … … … … … … … … our present level of (4) … … … … … … … …? In fact, some people believe that we'll have to change our (5) … … … … … … … … . This means (6) … … … … … … … … energy and generating less (7) … … … … … … … …. And because air travel is so bad for the environment, we won't be able to fly as (8) … … … … … … … …. And of course, we'll have to change the way we eat - more fresh, locally grown, food and fewer (9) … … … … … … … … products. And so on. And so on. But do we really need to make changes like this? After all, people have been making pessimistic predictions since the beginning of history… and we're still here.

Key: 1 consumers, 2 resources, 3 sustain, 4 consumption, 5 lifestyles, 6 conserving, 7 waste, 8 frequently, 9 processed and packaged.

Check answers.

With less advanced classes, you may like to focus a little on vocabulary. Write *sustain…. consumption* on the board /OHP and get students to complete the adjective and say its opposite (*sustainable* / *unsustainable*) and to make the noun (*sustainability*). Make sure that students know the German equivalent of *sustainable consumption* (nachhaltiger Konsum).

With more advanced classes, you could discuss the difference in meaning between

a We are using too much of our natural resources and

b We are using too many of our natural resources.

a implies that we should reduce the total *amount* of all the resources that we use, i.e. use *less* of everything.

b implies that we should reduce the total *number* of the resources that we use, i.e. use *fewer*.

Step 2

Aim to provide students with basic statistics about the pressure on land.

Time 5-10 min.

• Refer to the last line of the text in Activity 1 (*People have been making pessimistic predictions since the beginning of history…*) Ask students whether they think there are too many prophets of doom in the world today, and why.
• Ask how many people your students think live on our planet and write down a few answers (if they are different) on the board. Ask them to look at **Activity 2** in the *Activity and resource sheet*.

Activity 2

Listen to some information about the world population and land resources. What do the figures below refer to? Make notes as you listen.	
6 billion 51 billion 11.4 billion 12 per cent 10.03 billion 1.7 4	

Read out the following text, twice if necessary. Students note down what the figures refer to as they listen:

Over the last 40 years, world population has doubled - from about 3 billion to 6 billion. This means that for each global citizen there is only half as much space as there was in the 1960s. The total surface area of the Earth is 51 billion hectares, but most of this is sea. If we count only the *biologically productive* land and sea space we get about 11.4 billion hectares. But of course, we humans aren't alone on the planet – there are millions, yes millions, of other species. If we leave about 12 per cent of the biologically productive space for them, there are only 10.03 billion hectares left for us. And if we divide that figure, 10.03 billion, by 6 billion, we get 1.7. In other words, for each person on Earth, there is 1.7 hectares of biologically productive land. 1.7 hectares is approximately the same area as 4 football fields.

Source for statistics in this text: http://www.ecouncil.ac.cr/rio/focus/report/english/footprint/biological.htm
Note: You will find other sources in which these figures may vary slightly. This can depend on such factors as date, method of calculation, etc.

In pairs, students compare their notes. Then get the class to explain the problem of pressure on land, using their notes to help them.

Step 3
Aim to make students aware of the ways in which land is used
Time 5-10 minutes

Ask your students whether they think that 1.7 hectares of land is enough for them and to say why, but don't comment on their answers yet.
Ask students to look at **Activity 3** in the *Activity and resource sheet*. Working in pairs, they match the sentence halves. (Possible vocabulary problem: *landfill site* = Mülldeponie)

Activity 3

Choose the correct ending for sentences 1 - 5			
1	A single person living in a house with a garden	…a	… you use an area of land in another country.
2	In the European Union, 60% of waste	…b	… 20 to 30 times more space than a moving bicycle.
3	When you drink orange juice or		…uses much more space than a family living in

	eat beef	…c	an apartment block.
4	A moving car uses between	…d	… you need an area of forest to absorb the carbon dioxide emissions.
5	When you travel by car	…e	… is disposed of in landfill sites.

Key: 1 c, 2 e, 3 a, 4 b, 5 d.
Check answers.
If some of your students thought that 1.7 hectares of land was enough to meet their needs, ask if they still think that and, if not, why they have changed their minds. If you'd like to elaborate on the above points about land use**,** you may find the following facts useful:

1 /4	In Germany, the settlement and traffic circulation area (Siedlungs- und Verkehrsfläche) is about 10% of the total area of the country.
1	The settlement area in Germany is growing at a rate of 26 hectares per day.
2	The amount of waste thrown away per person per year is 864kg in the United States, 353kg in the United Kingdom and 331kg in Germany. The main methods of disposal are landfill sites, incinerators and recycling. In Germany, there is a significantly higher level of recycling than in the US or the UK, but nevertheless 16.2 million tonnes are disposed of in landfill sites. **
3	- German orange juice consumption requires 150,000 hectares of land in Brazil, which is equal to three times Germany's total domestic fruit-growing area. - The EU imports 70% of the high quality protein used for feeding farm animals, some of it from countries with widespread poverty, like Brazil or Indonesia.
4	The traffic circulation area in Germany is growing at a rate of 3 hectares a day.
5	It is estimated that - the number of motor vehicles will grow to 816 million worldwide by 2010 (compared with 518 million in 1990). - we are currently losing 14.6 billion hectares of natural forest every year – an area almost five times the size of Belgium.

** For details, see:
http://news.bbc.co.uk/hi/english/static/in_depth/world/2002/disposable_planet/waste/statsbank.stm

Step 4
Aim to allow students to calculate and discuss their ecological footprint
Time 15-20 min.

Write the categories *Food*, *Goods/Services*, *Mobility*, *Shelter* on the board/OHP (these categories are used to measure consumption in the quiz).
Ask students to look back at the 5 sentences in **Activity 2** and to say which of them deal with these four categories (Food 3, Goods/Services 2, Mobility 4, 5, Shelter 1). This simple task should allow students to work out the meaning of *shelter*. If they wonder why the statistics about waste refer to goods / services, you could point out that the more products we buy, the more waste we generate.
Refer to the sketch you drew on the board at the start of the lesson and explain the term *ecological footprint*: a measure of the impact that people have on their natural environment; the total area of productive land / sea which they need to produce what they consume and dispose of their waste. Point out that the average German footprint is 4.7 hectares, almost three times the fair share of the world's resources (4.7 ÷ 1.7 = 2.76). Ask students to work out how many planets we would need if the citizens of every country had the same lifestyle as people in Germany (4.7 x 6 ÷ 10. 03 = 2.81).
Students go to the quiz site at http://www.earthday.net/footprint/index.asp

About the quiz
The first page of the website site shows a world map. When you move the cursor over Europe, a double menu will appear from which you can select *both* from a list of European countries *and* a list of languages. Once you make this choice, you are taken to the next page where there are a few simple questions about age, sex and place of residence. There is also a brief definition of the ecological footprint. You can then move on to the main questions and the calculation of your footprint size (navigation by arrows at the bottom of each page). The footprint calculator assesses
- the area of land you use in each of the four categories (food, mobility, shelter, goods / services)
- your total footprint size
- the number of planets we would need, if everyone on Earth had your lifestyle.
You can also send your results to your own email address.

Note
The site uses AmE vocabulary (e.g. *row house* instead of BrE *terraced house*, *subway* instead of BrE *underground*) and spelling (e.g. *neighborhood* instead of BrE *neighbourhood*).

Questions about the quiz for which you may need to be prepared
- Question 2: Students may find it difficult to assess how much of their food is packaged, processed and imported, as they are unlikely to do the shopping themselves. Encourage them to make a rough estimate (for example, ask how often they eat frozen pizza, which is both processed and packaged).
- Question 13: The question is about the fuel consumption of “your car”. Students who do not have their own car should try to answer for the car in which they regularly travel as a passenger.
- In general: If students question the accuracy of the quiz or the applicability of the questions to them, you can point out that

Ask students to select Germany, and choose English as the language in which to do the footprint quiz. When they get to the final page, ask them to take a note of
a) their footprint in each of the four categories
b) their total footprint, and how it compares with the German average
c) the number of planets we would need if everyone had their lifestyle.
Suggest that they email their results to themselves.
Divide the class into groups of 5 or 6. Ask them to use their notes to compare their results and to explain the size of their respective footprints. Move from group to group, listen in, and help if necessary.
Ask students to look at Language resource 1 in the Activity and resource sheet, and focus particularly on the quantifiers (all of us, most of us, etc.) Select students from different groups to report to the class about their group results.
Ask students to look at Language resource 2 in the Activity and resource sheet check that they grasp the different uses of the will and going to futures.
In class, students discuss whether they think their footprints will get larger / smaller after they finish their education and get a job. If students wish to say what they could do to reduce their footprint, allow them to do so. However, you could point out that Lesson 3 is devoted entirely to this topic.

Lesson 2 – Rich and poor

Introduction
Students first use the internet to view a NASA photo of the world by night. This allows them to see where most electricity is used and in this way to identify richer and poor countries. They then get some general information about wealth and poverty before going on compare consumption patterns in Nigeria, the UK and the US in detail. Some of this information is

provided, and they will be able to get the rest by means of brief internet research. At the end of the lesson, they have the chance to discuss lifestyles in richer and poorer countries.

Lesson structure		
Steps	Aim	Time
Lead-in	to provide a visual curtain-raiser for the topic	5 min.
Step 1	- to provide general information about how much / little of the worlds resources different countries use - practice at using percentages, fractions, decimals	10 min.
Step 2	- to make comparisons (of some specific consumption patterns in richer and poorer countries) - practice at making comparisons	15 -20 min.
Step 3	- to conduct simple internet research - oral practice of making comparisons	10 min.
Step 4	to allow students reflect on how their lifestyles are similar to / differ from the lifestyles of people in the countries they have compared.	5 min.

Skills reading, listening, media competence, discussion.

Grammar focus comparatives and superlatives

If short of time You could leave out Step 3 and possibly give it as homework.

If time permits The discussion in Step 4 could exceed the 5 minute timing suggestion.

Before the lesson Make enough copies of the *Activity and resource sheet* for Lesson 2. You'll probably find it helpful to check out the world facts website at http://www.worldfactsnow.com/factbook

Lead-in
Use a world map to make sure that students know where Nigeria is. Then ask them to go to this internet address http://antwrp.gsfc.nasa.gov/apod/ap001127.html (NASA picture of the world at night – can be enlarged by clicking on picture) and compare Nigeria with the UK, the US and Australia. It should be clear that both the UK and the US are energy hot-spots. Both seem equally bright – however, the UK is much more densely populated than the US, and the American level of brightness reflects a much higher per capita energy consumption. At first sight, Nigeria and Australia seem similarly dark. Ask students how they would explain the relative darkness of these countries. (Nigeria, though heavily populated uses relatively little energy, but the dark patches in Australia reflect the emptiness of large parts of that continent. In fact, annual Australian electricity consumption averages at about 9400 kWh per capita, not as high as the US, but considerably higher than the UK – the figures are contained in the table in Activity 2 below.).
Perhaps tell students that they will be doing a little internet research later in the lesson, if you think this may motivate them.

Step 1
Aim to give students to general information about the inequalities among nations, regarding the use of the world resources, to practise using fractions, percentages and decimals
Time 10 -15 min.
• Hand out the *Activity and resource sheet* for Lesson 2 and ask students to look at **Activity 1**.

Activity 1

Task 1 – Read these sentences and put a circle round what you think is the correct number.
Task 2 - You will hear some information about how much of the world's

resources people in different countries use. As you listen, underline the correct number in the sentences below. Is it different from the number you circled?	
1	About *20 percent / 33 percent* of the people on our planet do not have access to electricity.
2	About *6 per cent / one sixth* of the world's population live on less than one US$ dollar per day.
3	About *20 percent / 50 per cent* of the world's population consume *half / three quarters* of the planet's natural resources.
4	About *6 percent / one sixth* of the world's population live in the United States, but they consume *15 percent / 30 percent / 45 percent* of the planet's resources.

Get students to read through the statements and *circle* what they think is the correct number in each case. In class, students compare their opinions briefly.
Read out the following text, twice if necessary, and get students to *underline* the correct number in the above statements as they listen. Point out that the information they need may be phrased differently in the text you are going to read. The key information is highlighted.

In western countries, life without electricity would be unthinkable. Even in the first hour of any day, we use electricity in many different ways: for the alarm clock which wakes us, for light and heat in the winter months, for hot water to shower with, to make coffee or tea, to listen to the radio at breakfast time… and so on. We probably think that this is normal, but for many people around this world this "normality" is a luxury they can only dream about. Almost 2 billion people, that's about a third of the world population, have no access at all to electricity. Access to electricity is just one measure of wealth and poverty. And the number of poor people on our planet is higher than many of us may realise. About one third of the world's citizens, have to less than US$ 2 a day to survive on. And half of those two billion people actually live on less than US$ 1 dollar. If your income is as low as this, you obviously can't pay for many consumer goods and services. And in fact, the people living in the world's poorer countries, altogether over 4 billion people, consume only one quarter of the planet's natural resources. In other words, a fifth of the world's population – the people living in western Europe, Japan, Australia, North America and a few other countries - uses about 75 percent of our natural resources. The United States alone consumes almost a third of the planet's resources. But the citizens of the United States do not make up a third of the world population. In fact, just a little over a twentieth of the people on our planet are US citizens.

Allow students time to compare their answers in pairs, making sure that they do so in English, so that everyone gets a chance to use fractions / percentages. To check, select students to give the correct information.
Grammar and usage: You many like to point out that
- although we generally use an indefinite article before fractions (a third, a fifth, a twentieth), no article is used before *half* (e.g., *half* of those two billion people).
even if a country has a plural name, it is followed by a singular verb (e.g., The United States alone *consumes*…).
• Give students a chance to react briefly to the information. How much of it was new, how much did they know already? How do they feel about it – surprised, shocked, angry, indifferent, etc.?

Step 2
Aim
to give students more precise information about unequal patterns of consumption between rich and poor countries
to practise making comparisons
Time 15 -20 min.
In this Step,

students look at a table with information about three different countries, Nigeria, the United Kingdom and the United States.
you can go over the grammar of comparisons using the Language resource in the *Activity and resource sheet*.
students use the information table and the grammar tables to do a gap-fill exercise on the topic.

Ask students to study information table in Activity 2 in the Activity and resource sheet for a few moments.

Activity 2 [highlighted statistics are blank spaces in students' activity sheets. This will help to ensure the information doesn't overwhelm students - in Step 3, they will do some internet research to find the missing statistics.]

Look at the information in the table				
		Nigeria	United Kingdom	United States
1	Population	129,934,911	59,778,002	280,562,489
2	Area	923,768 sq km	244,820 sq km	9,629,091 sq km
3	Ecological Footprint	1.3	5.3	9.7
4	Average annual income in US $	290	25,120	34,280
5	Annual electricity consumption per capita	134 kWh	5,644 kWh	12,321 kWh
6	Petrol per person (motorised vehicles)	56 litres	480 litres	1,679 litres
7	Annual per capita meat consumption	12 kg	76 kg	122 kg
8	Telephones - main lines	500,000	34.878 million	194 million
9	Telephones - mobile	27,600	13 million	69.209 million
10	Televisions	6.9 million	30.5 million	219 million
11	Internet users	100,000	19.47 million	148 million
12	Road network (paved)	60,000 km (including 1,194 km of expressway)	371,603 km (including 3,303 km of expressway)	5,733,028 km (including 74,091 km of expressway)
13	Airports (with paved runways)	34	349	5,174

Corresponding statistics for Germany (points 1-7)
1 83,029,536 **2** 357,021 sq km **3** 4.7 **4** $23,560 **5** 5,966 kWh **6** 465 litres **7** 87kg

If necessary,

- check that students understand the abbreviations (**sq**uare **k**ilo**m**etres, **k**ilo**w**att-**h**ours) and the terms *per capita, paved* and *expressway* (= BrE motorway or dual carriageway).
- draw attention to the fact that numbers are punctuated differently in English and German (commas separate thousands, a point is used before decimals – e.g. 1.3 = one point three)
- Then ask for a few comments on the differences between the three countries. If anyone wonders about the corresponding statistics for Germany, you will find them at the end of the table.
- Now ask students to look at the **Language resource** in the *Activity and resource sheet*.

Language resource - making comparisons

Comparisons with adjectives

Positive comparison	**Negative** comparison	Superlative
higher **than** larger **than** richer **than**	not **as** high **as** not **as** large **as** not **as** rich **as**	the high**est** the larg**est** the rich**est**
more extravagant **than**	not **as** extravagant **as** less extravagant **than**	the **most** extravagant

General comparison	Exact comparison	
larger than	twice as large as ten times as large as forty times as large as	_____ ten times larger than forty times larger than
more extravagant than	twice as extravagant as four times as extravagant as	_____ four times more extravagant than

Comparisons with nouns

General comparison	Exact comparison	
more **money** than	1.36 times as **much** money as twice as **much** money as 118 times as **much** money	1.36 times more money than _____ 118 times more money than
more **meat** than	twice as **much** meat as ten times as **much** meat	_____ ten times more meat than
more **petrol** than	3 ½ times as **much** petrol as 30 times as much petrol than	3 ½ times more petrol than 30 times more petrol than
more electricity than	92 times as **much** electricity as	92 times more electricity than
more **people** than	twice as **many** people as 4 ½ times as **many** people as	_____ 4 ½ times more people than
less electricity than	half as **much** electricity as	
fewer people than	a fifth as **many** people as half as **many** people as	

Depending on how advanced your class is, you could spend more or less time going through the grammar (Note: the underlined phrases in the tables have no relevance to the grammar itself, but will be needed later in the gap-fill exercise).

First table It will probably be enough to just remind students of the basic rules for making comparisons.

Second table You may, however, need to focus more on the two alternatives for making exact comparisons, e.g. *ten times as large as / ten times larger than…* . Note: *Twice larger than* etc. is not possible (hence the blank spaces in the table). Speakers of BrE would generally say *twice as large as…* and would regard *two times as large as…* as poor style, although this would be more acceptable in AmE.

Third table Here again, you could point to the two alternatives for making exact comparisons e.g., *118 times as much money as … / 118 times more money than*… .

You will also probably need to remind students about how the use of uncountable / countable nouns affects a comparison e.g., twice as **much** meat, **less** electricity, half as **much** electricity (**uncountable**); twice as **many** people, **fewer** people, half as **many** people (**countable**).

- Ask students to look at **Activity 3** and check that they understand the task. Before they try to fill the gaps, they should read through the text for gist.

Activity 3

There are twelve underlined phrases in the comparison tables in the *Language resource*. Use them to complete this text.
If you need to check up on any facts, you can use your information sheet about Nigeria, the UK and the US.

In area, the United States is much larger than either Nigeria or the UK – about (1) …… than Nigeria and almost (2) …….. as the UK. And, of the three countries, it also has the highest population, with over (3) …… people as Nigeria. There are fewer people in the UK, a little under (4) …… as in Nigeria, and about a fifth as many as in the US. The United States is also (5) …… of the three countries. The average American earns (6) …… money as the average Briton, and 118 times as much as the average Nigerian. In other words, a Nigerian needs to work for a whole year in order to earn what an American earns in approximately three days. These figures are reflected in different patterns of consumption in each of the three countries. The American lifestyle is more extravagant than either the British or Nigerian lifestyles – in fact it is (7) …… in the world. Per head of the population, Americans use about (8) …… electricity as the Nigerians. British per capita consumption is also much (9) …… the Nigerian, but the British still use a little less than (10) …….. electricity as the Americans. There are also big differences if we take the examples of petrol or meat consumption. Americans use about 3 ½ times as much petrol as the British, and almost (11) …… Nigerians. Americans eat (12)…… meat than the Nigerians and almost twice as much as the British.

Key 1 ten times larger 2 forty times as large as 3 twice as many 4 half as many 5 the richest 6 1.36 times as much 7 the most extravagant 8 92 times as much 9 higher than 10 half as much 11 30 times more 12 ten times more

Step 3

• Draw students' attention to the blank spaces on their information sheets (Activity 2).
Divide the class into three groups, equally sized if numbers permit. Ask
- Group 1 students to find the missing information on telephones (main line and mobile) for each of the three countries in the table.
- Group 2 students to find the missing information for televisions and internet users.
- Group 3 students to find the missing information for roads and airports.
Give them the address at which they can find the information: http://www.worldfactsnow.com/factbook and set a time limit for the task (5 minutes should be sufficient), and ask them to enter the information they find in the appropriate blank spaces in the table.

Using the website

On the left side of the first page, students will find an alphabetical list of countries. All they need to do is to scroll down the page, click on the link for each of the three countries, scroll down that page and find the facts they are looking for. The two relevant headings for the task, **Communication** and **Transportation** are towards the end of the page. With a less advanced group, you might like to mention this before they start the task. However, if students have to work this out for themselves, it will give them practice at the important skill of skimming a text.

- After students have filled in the missing information, give them a few minutes to process it with a view to making country comparisons.
- Get students to form small groups. Each group should contain at least one student from each of the three research groups. Students should now share the information they have

found, making comparisons to underline the differences between the countries. If they wish, they can now complete their tables.

Step 4

- Ask students to speculate about the lifestyles of people of their own age in the three countries which they compared. What do they think the similarities are? What are the possible differences? As there has been a fairly heavy emphasis on language accuracy in this lesson, it would probably be better to focus on fluency on this stage, and intervene as little as possible to correct mistakes.

Lesson 3 – What's my role?

The aim of this lesson is to illustrate the link between patterns of consumer behaviour the health of the environment, and global fairness. It also aims to make students aware of the complexity of these issues and to underline the need for reflection when making consumer decisions. They begin by trying to identify some dilemmas they can face when buy goods and services and then go on to look in detail at the environmental consequences of air travel. Following that they look at how their own consumer decisions and the trade policies of western government can affect living standards in developing countries. Finally, they discuss the responsibilities both of governments and of individual consumers.

Lesson structure		
Steps	Aim	Time
Lead-in	to provide a visual curtain-raiser for the topic	5 min.
Step 1	to make students aware that responsible consumer decisions can require a lot of thought	5-10 min.
Step 2	to provide students with information about the link between consumer habits and global warming	10 min.
Step 3	to allow students to work out the environmental cost of air travel	10 -15 min.
Step 4	to get students to discuss different aspects of the problem of social justice for labourer and producers in the South	10 - 15 min.

Skills reading, listening, media competence, exchanging information, discussion.

If short of time In Activity 3, students should get information for one destination only, some students for middle distance, some for long distance flights.

If time permits Allow more time for discussion at the end of Step 4.

Before the lesson

- Make enough copies of the *Activity and resource sheet* for Lesson 3. In Activity 4, you will divide the class into two groups and each group will get copies of only one of the two texts it contains. You may like to cut them up in advance.
- Get a kiwi fruit (preferably with an "imported from New Zealand sticker" on it and an apple (preferably locally grown and organic. You could also get a packet of conventional coffee and a packet of fair trade coffee. Take these with you to your lesson.
- You'll probably find it helpful to check out the air travel website at http://www.chooseclimate.org/flying/menu.html

Lead-in

- Place the fruit and coffee on the table ask students for their views about the environmental impact of choosing a kiwi / apple and the social impact of choosing conventional / fair trade coffee.

(It takes 5 litres of kerosene to transport a kilo of kiwis from New Zealand to Europe. Obviously, locally grown (organic) apples have a much smaller environment impact. For fair

trade products the producer is generally guaranteed a minimum price which is essential to survival if world prices for any commodity fall. Many fair trade projects also support sustainable agricultural methods.)

Step 1

Aim to make students aware that even if consumers want to do the "right" thing, they don't always face easy choices.

Time 10 min.

▪ Ask students to look at **Activity** 1 in the *Activity sheet* for Lesson 3 (Activities 1-3 only – for Activity 4, students will get different texts).

Activity 1

It's not always easy to know the best thing to do. Match the sentences on the left with the sentences on the right to identify some dilemmas.			
1	If each of us made an effort to use less of the world's resources, this would help to guarantee sustainable lifestyles.	… a	We can help farmers in poor countries by buying more of their products
2	I can reduce my mobility footprint by spending my holidays in the region I live in.	… b	There's very little that individuals can do – it's the system that needs to be changed, and only governments can do that.
3	If I spend less money on consumer goods, I can help to conserve the Earth's resources.	… c	If everyone on the planet had the same standard of living as we do, the ecosystem would probably collapse.
4	If I eat more locally produced food, this will help to cut down on transport and reduce my footprint.	… d	If consumers don't spend money, industry will suffer and people will lose their jobs.
5	The standard of living in poor countries is much too low – the people there must have a larger share of the planet's resources.	… e	Tourism is increasingly important for the economies of poor countries – spending a holiday there is one way to help raise their standard of living.

Key 1 b, 2 e, 3 d, 4 a, 5 c.

• Check answers and perhaps allow a little discussion. However, students are not expected to solve the dilemmas alluded to in the table – they just need to realise that many responsible consumer decisions require both information and reflection. There will be a chance to discuss the issues in more detail at the end of the lesson.

Step 2

Aim to explain the link between our consumer habits and global warming and encourage students to suggest ways in which they could help to reduce carbon dioxide emissions.

Time 10-15 min.

• Ask students to look at **Activity 2** on the *Activity sheet* and read through task instruction and the six statements. Check that everyone understands everything.

Activity 2

Listen to some information about global warming and decide whether the following statements are true		
1	Our oceans and forests can absorb 4 tonnes of carbon dioxide per global citizen.	T/F
2	On average, the amount of CO_2 emitted by each global citizen is 2 tonnes.	T/F

3	Scientists believe that Europe will be a less pleasant place to live within the next 50 years.	T/F
4	There is no link between our consumer habits and global warming.	T/F
5	We need to cut our carbon dioxide emissions by more than half.	T/F
6	Cutting global CO_2 emissions will be easy for everyone.	T/F

Key 1 F, 2 F, 3 T, 4, F, T, F.

• Ask students to listen carefully, as they will hear the text only once. Then read it out.

Every year the world emits 6 billion tonnes of carbon into the atmosphere, or an average of one tonne per global citizen. In the EU, the average is 2 tonnes per person and in the United States the figure is much higher. The oceans and forests on our planet can absorb some of these emissions, but only 0.4 tonnes per person. In other words, we are emitting too much carbon dioxide and other greenhouse gases, and this is probably the main cause of global warming. Scientists believe that global warming is causing the sea level to rise – between 15 and 20 centimetres in the last 100 years – and this means a loss living space for us and other species. And scientists also predict that, as the temperature rises, Europe will become a much less pleasant place to live, with more storms and floods and summers that will be too hot to enjoy. And all of this by 2050.
CO_2 emissions are caused by the burning of fossil fuels – oil, coal and gas. We burn fossil fuels directly or indirectly when we travel by car or plane or use electricity. Somehow we need to reduce the amount we burn – globally by 60 percent - if we are to get down to the 0.4 tonnes which our ecosystem can handle. And it follows that the more fossil fuels we burn, the more we have to cut down. The good news is that, in some ways, cutting down can actually save us money without forcing us to change our lifestyles. For example, we can buy energy efficient light bulbs which use 80% less energy and last 10 times longer than a normal light bulb, but don't cost 10 times as much. We could also help in other ways which could cost us a little more, but have a big impact. "Green energy", that is electricity generated from renewable sources like wind or water may be a bit more expensive than conventional energy, but it doesn't emit greenhouse gases. However, if we are to meet the 60% reduction target, we will also need to think about changes in our lifestyles which a lot of people may find less pleasant.

- Get students to compare their answers in pairs and discuss any differences before you check. When you check the answers, ask students if they can correct the false statements and expand on the correct statements.
- Ask students if they can suggest other ways of saving energy and money (e.g. turning off the standby on TV sets or electronic equipment, replacing old household appliances with more energy efficient ones, etc.)
- Ask what changes in lifestyle might be necessary that some people may find less pleasant – maybe they will mention air travel, which is the topic of the next activity.

Step 3

Aim to allow students to work out the environmental cost of air travel
Time 10 -15 min.

- Ask students why they think air travel has become much cheaper in recent years. They might mention the growth of "no frills" airlines, such as Ryanair, in which passenger service is kept to a minimum, the favourable conditions which such airlines can negotiate at secondary, regional airports, or the fact that kerosene is not taxed. At all events, you should stress the last point. Also ask students for their views on cheap air travel – is it a good or a bad thing, and why?
- Ask students to look at **Activity 3** on the *Activity sheet*.

Activity 3

After you have decided on two journeys you would like to make, go to http://www.chooseclimate.org/flying/menu.html and get some information about your flight.		
	1st flight (middle distance)	2nd flight (long distance)
From To		
Litres of fuel per passenger		
Carbon dioxide per passenger		
Extra cost if fuel were taxed at the same rate as petrol		
Other interesting facts		

• Get students to choose two flights they would like to make from their nearest major airport, one middle distance flight (e.g. from Berlin to the south of Spain) and one long distance flight (e.g. from Frankfurt/M to New York or Sydney). Ask them to enter their starting points and destinations in the **From / To** sections of the columns.
• Ask students to read through the rest of the headings in the left column. Tell them that they will be going to an internet site at which they can get this information about the flights they have chosen. It will probably be helpful to give them a few guidelines about using the site:

Using the website

After you find the site, click on the second link (YOUR JOURNEY), which will open a world map. To get the information about your flight, all you need to do is to click on your starting point and destination. As there are no cities marked on the map you have to guess roughly where to click – the only guide which the site offers is degrees of latitude and longitude, which appear in boxes under the map as you move the cursor across it.
The settings are for a return flight in a jumbo jet, economy class, with 80% of the seats used. Some of these settings can be changed, but there is no need to do this.
Once you have clicked your starting point and destination, you can scroll down the page where you will find the relevant information under the first two headings, *How much is this?* and *Your journey in a global context*.
Note: The information about the extra cost of the flight is in £ sterling and is calculated on the basis of British petrol taxes.

- Set a five-minute time limit, to ensure that students work efficiently. Ask them to get the information to complete their tables, and suggest that they can note down any other facts about their journey that they find interesting, if they have enough time.
- Ask (some) students to tell the class briefly about one or both (depending on how much time you have left). Then ask them to discuss the pros and cons of taxing kerosene (good for the environment / bad for their pockets etc.) and to say what they would do. Make it clear that this is an area in which only governments can do something and get them to discuss why governments are reluctant to make any changes (e.g. fear of angry voters? influence of the air lobby? difficulty of getting international agreement?).

Step 4

Aim to find out about and discuss different aspects of the problem of social justice for labourer and producers in the South
Time 10 -15 min.

- Divide the class into two groups and give each group copies of <u>one</u> of the texts in **Activity 4.**

Activity 4 – Text 1

Read through the text. Then find a partner who has read a different text and tell him / her about your text in your own words.
The social impact of our consumer choices Every day we make consumer choices. We know that the choices we make have an impact on our environment, but they also have a social impact, in our own countries far away from us. For example, if we spend £50 on a pair of Nike trainers, about 80 percent of the money covers the costs and profits of the store where we bought them and the costs and profits of the Nike company. The labour costs are only £1.19, just over 2 percent of what we pay. We'd probably feel more comfortable in our trainers if we knew that the people who actually produced them, often in poorer Asian countries, were getting a fairer price for their work, and that their working conditions were more humane than they often are. And much the same is true of many other products. Do we really feel happy buying a carpet which was made by child labour in a developing country? And doesn't coffee have rather a bitter taste when we know that the many of the people who produce it hardly earn enough to live on? But what can we do if we want to be fair? The main thing is to think about what we buy, ask questions about it, and get information – from consumer organisations, the internet, or just by looking out for some of the labels and logos which can tell us whether the producer is getting a fair deal.

Activity 4 – Text 2

Read through the text. Then find a partner who has read a different text and tell him / her about your text in your own words.
Trade, wealth and poverty Trade is the key the economic prosperity. The top five exporting nations – the US, Japan, Germany, France and the UK have a population of 646 million and a 37 percent share of world trade. By contrast, the 49 least developed countries, with a combined population of 648 million, have less than a 1 percent share in global trade. However, many of the world poor countries are rich in natural resources. Sierra Leone, for example has rice, vegetable oil, coffee, cocoa, iron ore and diamonds. But the annual average income is only US$ 140. There are several reasons why potentially prosperous countries are poor – political instability, for example, which in many cases is one of the effects of western colonialism. Another reason why the poor remain poor is that western countries have used high tariffs to block access to their markets, especially for agricultural products. At the same time, they subsidise their own farmers. The EU spends about US $100 billion a year to support its farmers. To give a concrete example, every cow in the EU costs European taxpayers US$ 730 in subsidies a year. Many people believe that poorer countries should get a fairer deal. Free trade – the end of tariffs and subsidies would be one way of achieving this. This is an area where we need an international agreement which is fair to everyone.

Students read their texts in pairs, and help each other with any comprehension problems.

- • When they have finished, ask them to find a partner who has read the other text, and exchange information with him / her.
- • In class, discuss the issues raised in the texts, e.g.:
  - What can individual consumers do to contribute to a fairer world?

- Where can they get information?

Useful internet sites include, for example http://www.cleanclothes.org/ against exploitation in the textile industry http://www.vz-nrw.de/UNIQ106266532431570200l4/doc1658A.html overview of environmental logos including fair trade.

Should Europe's farmers be subsidised?

Possible arguments for: farmers provide a service by looking after the countryside, it is important to guarantee national food supplies, ending subsidies would create social hardship in the farming community.
Possible arguments against: subsidies are unfair to producers in poorer countries – they greatly exceed what is paid in foreign aid; farmers have privileges which people in other economic sectors do not enjoy; the consumer pays through higher taxes, higher prices, less choice; market-oriented farming could be more efficient; if some uneconomical farmland were taken out of service, reforestation would be an environmentally beneficial alternative).

- Have individuals got any chance of changing government policies – through the way they vote, by involvement in pressure groups, etc?
- With more advanced classes, you might also wish to discuss the question how we both maintain an acceptable living standard for ourselves and raise living standards in the South without placing an impossible strain on the planet's resources (e.g. if we help to develop sustainable economies in the South, we will also help to ensure the reduction of forest clearage by people who need land for basic subsistence.) However, this is an extremely complex area and it probably better to avoid it unless you are well prepared.

