Cambridge Pre-U Specimen Papers and Mark Schemes

Cambridge International Level 3 Pre-U Certificate in GLOBAL PERSPECTIVES AND INDEPENDENT RESEARCH Cambridge **Pre-U** 

For use from 2008 onwards



UNIVERSITY of CAMBRIDGE International Examinations



# **Specimen Materials**

# Global Perspectives and Independent Research (9777)

Cambridge International Level 3 Pre-U Certificate in Global Perspectives and Independent Research

For use from 2008 onwards

QAN 500/4010/8

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# **Syllabus Updates**

This booklet of specimen materials is for use from 2008. It is intended for use with the version of the syllabus that will be examined in 2010, 2011 and 2012. The purpose of these materials is to provide Centres with a reasonable idea of the general shape and character of the planned question papers in advance of the first operational examination.

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# **GLOBAL PERSPECTIVES**

Paper 1 Written Paper SPECIMEN PAPER 9777/01 For Examination from 2010

1 hour 30 minutes

Additional Materials: Resource Booklet Answer Paper/Booklet

# **READ THESE INSTRUCTIONS FIRST**

You should spend approximately **10 minutes** reading the documents in the Resource Booklet before attempting to answer the questions.

This document consists of **2** printed pages.



Answer **all** questions.

2

(b)

**1** Document 1 is taken from a speech in which Hilary Benn claims that it is important for the international community to tackle poverty, injustice and inequality.

(a)	Identify <b>three</b> reasons which Benn gives to support his claim.	[3]			
(b)	Evaluate the evidence which Benn uses to support his claim.	[5]			
(c)	<ul> <li>Evaluate the strengths and weaknesses of Benn's reasoning. In your answer you shou</li> <li>identify flaws;</li> </ul>	ld:			
	<ul> <li>assess the use of analogy;</li> <li>assess the use of counter-argument, if any.</li> </ul>	[9]			
Document 2 provides an alternative perspective on where the responsibility for tackling global poverty should lie.					
(a)	Identify the main conclusion of the argument in Document 2.	[1]			

In your answer you should:

Compare the alternative perspectives presented in Documents 1 and 2.

- refer to the key reasons and evidence supporting the two different viewpoints;
- state and explain your own reasoned judgement as to where the responsibility for tackling global poverty should lie.

[12]

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# **GLOBAL PERSPECTIVES**

Paper 1 Written Paper SPECIMEN RESOURCE BOOKLET

9777/01 For Examination from 2010

1 hour 30 minutes

Additional Materials:

# **READ THESE INSTRUCTIONS FIRST**

This Resource Booklet contains Documents 1 and 2 which you should use to answer the questions. You should spend approximately 10 minutes reading the documents before starting to answer the questions.

This document consists of 4 printed pages.



Report of a speech by Hilary Benn, Minister for Overseas Development, at Newcastle University in February 2007, on the challenge of world poverty.

Benn recalled that in 2006, he visited a refugee camp at Wajid in Somalia. "11,000 people who fled the countryside when the drought killed their animals and shrivelled their crops are now living in huts made of twigs covered in pitiful scraps of cloth and clothing and surviving on water and food provided by us, the international community, including Britain as we always do. At the corner of the camp were three large, proper tents which, as I discovered, housed a school run by UNICEF. Rows of children – as many girls as boys – keen and enthusiastic as any pupils I have ever met, enjoying – for the very first time in their lives – the chance to go to school.

"It is experiences like these that have taught me – taught all of us – both why development – people being able by their own efforts to change their lives for the better – is so important, and why unless we tackle poverty, injustice and inequality we will never have a safe and secure world in which to live, regardless of where it is we happen to call home.

"Because the truth is this. Here we are at the beginning of the 21st century. We know that in the developing world, pregnancy and childbirth claim the life of a woman every minute – women who die alone and afraid on the floor of a darkened hut with no midwife or doctor to help. 6,000 children will die today from a lack of clean water to drink. Each year, every year, malaria kills one million people, tuberculosis 2 million people, AIDS 3 million people - every one a human life extinguished: potential unrealised.

"Because we see these things. We cannot claim any more that we did not know what was going on. And we have a choice. Either to say. I am sorry about the condition of humankind, but we can't do anything and I am going to go home and shut the door and close the curtains, and hope the rest of the world goes away. Or we can say – 'What can we do and how we can do it?'

"Just look at our own history. Remember how we changed things! Go back 200 years to a time of great change in our society... it was the great social reformers who helped change things... The father of public health, John Snow, who in 1854 worked out that cholera was spread through contaminated wells... The dreamers who dared to say that every child in Britain should be able to go to school.

"Campaigns like Make Poverty History are the global equivalent of social reformers of the 19th century. And we have made progress. In the past 40 years, life expectancy in the developing world increased by a quarter. In the past 30 years, illiteracy has fallen by half. In the past 20 years, 400 million human beings lifted out of absolute poverty. We've beaten smallpox, and we are nearly there with polio. The truth is, if our ancestors from 200 years ago came back, they would be astonished. And yet there is so much yet to do... we need to make sure we keep the promises we made in 2005 at Gleneagles! The tide of human will that forced us to make a difference...

"And lastly, we need hope and encouragement. I say that because the thing I fear most of all is not doubt, or criticism, or despair – we all feel these things at different times – but cynicism. If we ever become cynical we will be lost. Trying to give people the chance to transform their own lives is all about putting our better impulses at the service of humankind. It is about being straightforward and unafraid... If we can find the courage to live up to those words, then when our time is over, we will be able to look back and say: 'This is what we did to make the world a better place', as we hand on that world to those who will come after us."

# **Global poverty**

# Are we nearly there yet?

Adapted from The Economist print edition, 5 July 2007

# Mid-way through, the UN's drive against poverty remains half crusade and half charade.

3



#### Reuters

Make poverty history is a compelling slogan. Halve it by 2015, in contrast, is a measurable commitment. That is the logic behind the Millennium Development Goals (MDGs), a host of targets in the struggle against global deprivation, disease and illiteracy, set by the world's leaders at a United Nations jamboree in 2000.

The goals claim to convert campaign slogans into bankable pledges, complete with a number and a date. The world has, for example, resolved to cut the rate at which mothers die from childbirth by three-quarters from 1990 to 2015. The percentage of people without safe water will fall by half; infant mortality by a third.

The 2000 summit was unprecedented in its pulling power, attracting more bigwigs than ever before. But many of the targets were a bit old hat, recycled for the second or third time. The 1980s were supposed to bring water and sanitation to the great unwashed; the 1990s were supposed to provide "education for all". Surely, then, no one would take the MDGs all that seriously? Surely, they would quietly fade in the memory like so many other turn-of-the millennium follies and fantasies?

In fact, they have remained surprisingly conspicuous, becoming a kind of secular scripture for the aid fraternity. The UN family, of course, cherishes them. But the goals have also converted the organisation's rivals in the aid business (the World Bank, the World Trade Organisation, and the International Monetary Fund).

As a result, the MDGs can justly claim to generate a bit of buzz about duties a government might otherwise neglect. After all, ministers in poor countries have a lot on their plate—fending off rivals, putting down insurgencies, distributing the spoils of office. Saving mothers from eclampsia or children from diarrhoea does not always command their full attention. The goals ensure some international recognition for politicians who can make progress on such things.

Sadly, however, they cannot do what they purport to do, which is to provide credible benchmarks against which governments can be judged. Set for the world as a whole, the numerical targets do not fit any country in particular. China had all but met the target of halving poverty from its 1990 levels by the time it was set a decade later. Sub-Saharan Africa, on the other hand, will fall short of all of the goals, even though its economy is growing quicker than it has for a generation and it is putting children in school faster than any other region.

Some goals cannot be met, others cannot even be measured. Poor countries collect no reliable numbers on deaths from malaria or from childbirth—although the goals are helping to stir a welcome interest in generating better figures. And sometimes what is measured (number of children enrolled in school) is not what counts (the number who learn anything).

The goals are supposed to be everyone's responsibility, which means they are no one's. Poor countries can blame rich ones for not stumping up enough cash; rich governments can accuse poor ones of failing to deserve more money.

Some MDG zealots think the responsibility for achieving them is more clear-cut. They work out what needs to be done to meet the goals; add up the costs; then demand that the world's rich governments foot the bill. Only a lack of generosity separates poor countries from the 2015 targets, they argue.

But foreign cash does not always produce results; and some results do not require much money. Brazil is four times richer than Sri Lanka, but its children are more than twice as likely to die before their fifth birthday. Improving sanitation is about breaking habits as much as building latrines. And although aid money can send a doctor to the boondocks, it cannot make him show up to work. The social progress envisaged in the 2015 targets requires the kind of nationwide nannying that only an accountable domestic government, not a distant foreign donor, can sustain.

Can the MDG exercise be salvaged? Researchers at the Centre for Global Development, a Washington think-tank, argue that donors should commit themselves to make "payments for progress", giving a fixed sum of money to a poor country only after it has shown independently audited progress towards a goal. Donors could, for example, provide \$100 for every child who completes primary school, or passes a literacy test, over and above a 2000 baseline. The payments would provide sharper incentives, as well as extra resources. No developing country could claim money was not on the table, and no donor could claim the results were not there to see.

The millennium bash secured global agreement on what matters. That is not nothing. But impoverished countries have to start where they are, not where summiteers might wish them to be. Aid money cannot bridge that gap, and the custodians of the MDGs should not pretend otherwise. But nor should a lack of foreign cash stop countries inching their way out of poverty by their own efforts—which is the only way any nation has ever done it. To make poverty history, you have to understand how history is made.

Copyright Acknowledgements:

Document 1 Report of a speech by Hilary Benn, Minister for Overseas Development, at Newcastle University in February 2007, on the challenge of world poverty.

Document 2 Global Poverty. The Economist, 5 July 2007.

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# **GLOBAL PERSPECTIVES**

Paper 1 Written Paper SPECIMEN MARK SCHEME 9777/01 For Examination from 2010

1 hour 30 minutes

# **MAXIMUM MARK: 30**

This document consists of **7** printed pages and **1** bank page.



A01	Analysis and evaluation of arguments	<ul> <li>Critical analysis and evaluation of argument structure:</li> <li>to understand and apply the language of reasoning;</li> <li>to analyse the structure of argument, by identifying the conclusion, reasons (premises), assumptions and any counterargument;</li> <li>to assess the technical strength/weakness of the argument by testing the acceptability, relevance and sufficiency of the premises to support the conclusion</li> </ul>
AO2	Analysis and evaluation of contexts	<ul> <li>Situating the argument in its context:</li> <li>identify and evaluate the use of key expressions and ideas, clarifying them as needed;</li> <li>assess the credibility of sources (collected by the candidate);</li> <li>identify alternative/rival perspectives and assess their relationship to the case presented;</li> <li>identify desirable ends/outcomes from which to judge rival perspectives</li> </ul>
AO3	Communication	<ul> <li>Presentation, communication and collaboration:</li> <li>use language and other appropriate media to convey complex concepts and ideas with clarity;</li> <li>establish a context or framework of understanding sufficient for audiences to understand and respond to the presentation;</li> <li>demonstrate ability to create a coherent and well-elaborated personal perspective and articulate its relationship to alternative perspectives;</li> </ul>
A04	Dispositions	<ul> <li>Dispositions: Judgement, reason, self-reflection, empathy:</li> <li>sympathetically or intellectually engage with counter-argument or alternative perspectives;</li> <li>assess the possibility of synthesising varied perspectives as an alternative to favouring only one;</li> <li>identify areas in need of further information or research;</li> <li>establish, and reflect on, a personal point of view</li> </ul>

# 1 (a) Document 1 is taken from a speech in which Hilary Benn claims that it is important for the international community to tackle poverty, injustice and inequality.

# Identify three reasons which Benn gives to support his claim.

One mark for each reason identified. Accept:

- positive results of aid in people's lives/children attending school
- (appeal to emotion) deaths of women and children
- unrealised potential (deaths of mothers in childbirth and of children from illnesses)
- need to keep promises (made at Gleneagles)/moral obligation/should put better impulses at service of mankind
- to ensure global safety and security

# AO1 [3]

# (b) Evaluate the evidence which Benn uses to support his claim.

### Evidence

Example of visit to Wajid in Somalia: refugees live in poor huts, fed by international aid but children enjoy school for the first time.

It could be argued that the poverty of the tents (comparison of refugees' tents with school tents) shows inadequacy of aid. Children's enjoyment of school does not mean that what they learn has long-term benefit.

Statistical evidence: 6,000 children will die today from a lack of clean water to drink./Every year malaria kills one million people,/tuberculosis 2 million people,/AIDS 3 million people. In the past 40 years, life expectancy in the developing world increased by a quarter./In the past 30 years, illiteracy has fallen by half./In the past 20 years, 400 million human beings lifted out of absolute poverty.

**Evaluation** of Benn's use of evidence should show some consideration of whether the statistics are reliable/representative and/or whether they support the claim that it is important for the international community to tackle global poverty.

The figures are persuasive and may (rightly) be in round numbers because this is a speech rather than, for example, a report, but the use of neat round numbers indicates they cannot be entirely accurate.

One mark for identification of an example/piece of evidence plus one mark for appropriate evaluative comment up to maximum of 5 marks Maximum 2 marks if candidate does not offer evaluation.

AO1 [5]

- (c) Evaluate the strengths and weaknesses of Benn's reasoning. In your answer you should:
  - identify any flaws
  - assess the use of analogy
  - assess the use of counter-argument, if any.

Use Levels of Response mark scheme.

#### Indicative content

There is much material here for candidates to consider. They may argue that is largely opinion and rhetoric plus account (visit to refugee camp), rather than reasoned argument.

Candidates may identify numerous appeals: to emotion (deaths of women and children, "women who die alone and afraid on the floor of a darkened hut with no midwife or doctor to help", and in final paragraph); appeals to tradition/history ("including Britain as we always do" and references to nineteenth century social reformers); "the tide of human will" may be interpreted as an appeal to popularity.

Responses may argue that appeals are flaws. Accept responses which argue either for these devices strengthening or for them weakening the reasoning.

Candidates may question accuracy of comment about Britain's support "as we always do".

Analogy: Campaigns like Make Poverty History are compared to the work of social reformers such as John Snow who identified cause of spread of cholera and those who argued for universal education in this country. Candidates may argue that analogy is, or is not, useful in supporting Benn's claim. Make Poverty History differs in that here rich western nations are giving aid to other nations; nineteenth century social reformers worked within their own society. Candidates may question whether people in poorer/African countries need persuading that children should attend school (since in Benn's own example they are keen to attend), but what is needed is provision of schools. They may also argue that other things should be prioritised above education – food, health care. Reference to ancestors returning and being astonished: it would depend what ancestors compare – conditions in some places might be familiar to them.

Candidates may identify the following as a false dichotomy: "to say. I am sorry about the condition of humankind, but we can't do anything and I am going to go home and shut the door and close the curtains, and hope the rest of the world goes away. Or, etc" Responses may comment that this is an exaggeration of viewpoints which are different to Benn's. Also accept if it is identified as counter argument.

# Levels of Response

Apply levels holistically

Level 3 7–9 marks	Sustained evaluation of strengths and weaknesses of reasoning; critical assessment with explicit reference to how flaws, analogy, counter- argument support the claim. Highly effective, accurate and clearly expressed explanation and reasoning; clear evidence of structured argument/discussion, with conclusions reached/ explicitly stated in a cogent and convincing manner
Level 2 4–6 marks	Some evaluation of strengths and weaknesses of reasoning, but evaluation may focus more on one aspect; assessment of flaws, analogy, counter-argument may not link clearly to the claim. Effective and generally accurate explanation and reasoning; some evidence of structured argument/discussion; conclusions may not be explicitly stated or link directly to analysis.
Level 1 1–3 marks	Little or no evaluation of strengths and weaknesses, although flaws, analogy, counter-argument may be identified. Level of communication is limited; response may be cursory or descriptive; communication does not deal with complex subject matter.

# AO1 6 marks, AO2 2 marks, AO3 1 mark [9]

# 2 Document 2 provides an alternative perspective on where the responsibility for tackling global poverty should lie.

# (a) Identify the main conclusion of the argument in Document 2.

MDGs secured global agreement on what matters but countries have to get out of poverty by their own efforts.

Accept variations that catch sense of final paragraph that MDGs/aid, etc are useful but responsibility lies with developing nations as well as the wealthier nations.

AO1 [1]

# (b) Compare the alternative perspectives presented in Documents 1 and 2. In your answer you should:

- refer to the key reasons and evidence supporting the two different viewpoints;
- state and explain your own reasoned judgement as to where the responsibility for tackling global poverty should lie.

## Indicative content

Responses should focus on key reasons and evidence in both documents in order to compare alternative perspectives and synthesis them to reach a reasoned judgement. Responses which simply repeat answers to Question **1(a)**, which asked for identification of three reasons in Document 1, should not be credited.

Benn's key reasons for arguing the importance of assisting development of poorer nations are moral obligation and ensuring safety and security. The Economist outlines some recent history of attempts to deal with global deprivation, and is critical of them (paras 3 and 5 use

some loaded language, which candidates may identify). The Economist argues that setting MDG targets is not sufficient as these may not be appropriate, attainable or measurable.

However, they may be used to "demand" money from rich governments, but foreign cash does not always produce results. The proposal that money should be tied to progress is supported by the example of a payment of \$100 for each child completing primary school or passing a literacy test.

Candidates may comment that the sources of the document are reflected in their content and reasoning: Benn is a politician and was Minister for Overseas Development at the time of the speech; the Economist writes for international business interests. The Benn speech is emotive and contains many examples of rhetoric and opinion; the Economist article may appear to be a more reasoned account and explanation, with use of relevant evidence (para 10) but it also uses loaded language ("the great unwashed", "nationwide nannying", and other examples).

Higher achieving responses may note that the Economist article contains within it different perspectives and assess them.

Candidates should critically assess the use of examples and evidence in the Economist article (para 10 especially). For example, the comparison of Brazil and Sri Lanka may ignore other significant factors. Breaking sanitation habits requires money for education programmes. The example of the doctor who does not turn up for work is not supported. Some candidates may compare the Economist's figures with those provided by Benn.

Candidates may reach the judgement that the moral basis of Benn's speech is correct, but that aid from rich countries is insufficient, and poor countries also have to take responsibility.

Other judgements which are supported by reasoning are acceptable. Weaker candidates may digress into, for example, opinions about corrupt third-world governments, which cannot access higher mark levels.

# Levels of Response

Apply levels holistically

Level 3 9–12 marks	Sustained evaluation of alternative perspectives; critical assessment with explicit reference to key reasons and evidence leading to reasoned judgement. Highly effective, accurate and clearly expressed explanation and reasoning; clear evidence of structured argument/discussion, with conclusions reached/ explicitly stated in a cogent and convincing manner
Level 2 5–8 marks	Some evaluation which may focus more on one perspective; assessment may not link key reasons and evidence clearly to the perspective or to the reasoned judgement. Effective and generally accurate explanation and reasoning; some evidence of structured argument/discussion; conclusions may not be explicitly stated or link directly to analysis.
Level 1 1–4 marks	Little or no evaluation of perspectives, although some relevant evidence or reasons may be identified; judgement is unsupported or superficial. Level of communication is limited; response may be cursory or descriptive; communication does not deal with complex subject matter.

# Assessment Objective Breakdown

Question Number	AO1	AO2	AO3	AO4	Total marks
1(a)	3				3
1(b)	5				5
1(c)	6	2	1		9
2(a)	1				1
2(b)	3	7	2		12
	18	9	3		30
	60.0%	30.0%	10.0%	0	100%

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## **GLOBAL PERSPECTIVES**

Paper 3 Presentation SPECIMEN RESOURCE BOOKLET 9777/03 For Examination from 2010

Additional Materials:

### **READ THESE INSTRUCTIONS FIRST**

#### Guidance for Teachers

This Resource Booklet contains stimulus material to be used by candidates preparing for the Presentation component of the Global Perspectives assessment.

The Resource Booklet should be issued to candidates four weeks before the deadline for submission of the presentations.

### Instructions to Candidates

- You should use the enclosed stimulus material to help you identify the topic for your presentation. Your presentation can address any aspect of the material but should address contrasting perspectives.
- You are advised to frame the title of your presentation in the form of a question.
- Originality in interpretation is welcomed.
- Your presentation can be delivered as an oral presentation using appropriate ICT (e.g. presentation software), or as a video log, weblog or multi-media presentation.
- The speaking or running time of your presentation should be maximum 15 minutes.

This document consists of 16 printed pages.



# Edible insects from New Scientist 17 March 2007

FANCY A locust for lunch? Probably not, if you live in the west, but elsewhere it's a different story. Edible insects - termites, stick insects, dragonflies, grasshoppers and giant water bugs - are on the menu for an estimated 80 per cent of the world's population.

More than 1000 species of insects are served up around the world. For example, "kungu cakes" - made from midges - are a delicacy in parts of Africa. Mexico is an insect-eating - or entomophagous - hotspot, where more than 200 insect species are consumed. Demand is so high that 40 species are now under threat, including white agave worms. These caterpillars of the tequila giant-skipper butterfly fetch around \$250 a kilogram.

Eating insects makes nutritional sense. Some contain more protein than meat or fish. The female gypsy moth, for instance, is about 80 per cent protein. Insects can be a good source of vitamins and minerals too: a type of caterpillar (Usta terpsichore) eaten in Angola is rich in iron, zinc and thiamine.

What do they taste like? Ants have a lemon tang, apparently, whereas giant water bugs taste of mint and fire ant pupae of watermelon. You have probably, inadvertently, already tasted some of these things, as insects are often accidental tourists in other types of food. The US Food and Drug Administration even issues guidelines for the number of insect parts allowed in certain foods. For example, it is acceptable for 225 grams of macaroni to contain up to 225 insect fragments.

Insects have been an important part of the human diet for thousands of years, so why has insect eating died out in the developed world? Stuart Hine, an entomologist a the Natural History Museum in London, says it is a cultural thing: insects are seen as "dirty" and as carriers of disease. Despite this, a decade ago, insect eating seemed to be making comeback, with the publication of a number of insect recipe books. Although supermarket shelves are still devoid of insect-based delicacies, have no fear, entomophagy is not entirely non-existent in the west. Edible, a London-based company, supplies products such as chocolate-covered ants and toasted leafcutter ants. Perhaps, as we become more aware of the sentience of higher animals, insects will become the protein of choice in centuries to come?

# Pastures new may destroy the planet 21 April 2007 NewScientist.com news service Chris Pollock and Jules Pretty

Sustainable development is the mantra of the 21st century. It is applied to just about everything from energy to clean water and economic growth, and as a result it has become difficult to question either the basic assumptions behind it or the way the concept is put to use. This is especially true in agriculture, where sustainable development is often taken as the sole measure of progress - always a dangerous notion - without a proper appreciation of historical and cultural perspectives.

To start with, it is important to remember that the nature of agriculture - its benefits and its impact on the environment - has changed markedly throughout history, and will continue to do so. Medieval rotational agriculture in northern Europe fed, clothed and sheltered a predominantly rural society with a population density at least an order of magnitude lower than it is today. It had minimal effect on biodiversity, and any pollution it caused was typically localised. In terms of energy use and the nutrients captured in the product it was relatively inefficient.

Contrast this with farming since the start of the industrial revolution. Competition from overseas led farmers to specialise and increase yields. Throughout this period food became cheaper, safer to eat and more reliable. However, these changes have also led to habitat loss or degradation, and to diminishing biodiversity on farmland and in the surrounding countryside. Flora and fauna in the UK are now in remarkably poor condition, and according to the Environment Agency, farming is the most significant cause of serious pollution incidents.

To make matters worse, certain agricultural practices considered sustainable may have unexpected downsides. For example, planting nitrogen-fixing legumes can lead to excess nitrogen leaching from the soil, causing eutrophication; ploughing can cause soils to lose carbon; zero tillage (minimising soil disturbance when managing crops) requires herbicides.

What concerns us is that pressure on land the world over is likely to increase for at least the next halfcentury, making it even harder to make agriculture truly sustainable. The global population is likely to rise by at least another 2 billion to around 9 billion by 2045 or 2050. Demographers think it will stabilise and then probably fall over the subsequent century, but we are not there yet. It is likely that climate change will significantly reduce crop and animal yields, particularly in the subtropics and tropics, where reductions of between 5 and 10 per cent are predicted by 2050.

At the same time, demand for animal products in developing countries is growing so fast that meeting it will require an extra 300 million tonnes of grain a year by 2050. Yet the growth of cities and industry is reducing the amount of water available for agriculture in many regions. In the UK, farmers are still wondering how they can make a living producing food without subsidies, while ideas about paying farmers for services such as flood protection, carbon sequestration and biodiversity have yet to translate into farm incomes.

All this means that agriculture in the 21st century will have to be very different to how it was in the 20th. This will require radical thinking. For example, we need to move away from the idea that traditional practices are inevitably more sustainable than new ones. We also need to abandon the notion that agriculture can be "zero impact". The key will be to abandon the rather simple and static measures of sustainability that have become common, which centre on the need to maintain production without increasing damage.

Instead we need a more dynamic interpretation, one that looks at the pros and cons of all the various ways land is used. There are many different ways to measure agricultural performance besides food yield: energy use, environmental costs, water purity, carbon footprint, biodiversity. It is clear, for example, that the carbon cost of transporting tomatoes from Spain to the UK is less than that of

producing them in the UK with additional heating and lighting (unless this comes from renewable sources). But we do not know whether lower carbon footprints will always be better for biodiversity.

What is crucial is recognising that sustainable agriculture is not just about sustainable food production. In biodiversity terms, the two largest changes in the UK landscape in recent decades occurred following the shift from spring-sown to winter-sown cereals, and the shift from hay-making to silage production. Although these were just simple management changes, they altered the balance between the farmed and the non-farmed elements in the landscape and had considerable consequences for farmland birds. Seeing this kind of broad picture is crucial; without it we will continue to pay lip service to sustainability without ever developing ways to improve it.

Chris Pollock is former director of the Institute of Grassland and Environmental Research in Aberystwyth, UK.

Jules Pretty is professor of environment and society at the University of Essex In Colchester, UK

## Sugar Sick with excess of sweetness A great poet's brushes with the world's first consumer boycott Adapted from *The Economist* print edition 23 December 2006



#### Bridgeman

POETS and sweetness go together, or so the Greeks thought. Homer, lying in his cradle, was brushed on his lips by honey bees; Plato saw poets themselves as bees gathering nectar in the garden of the Muses. So it is hardly surprising that Percy Bysshe Shelley, lover of both Homer and Plato and an extraordinary poet in his own right, had a very sweet tooth indeed.

He loved dried plums, figs, apples and oranges. He doted on gingerbread and cakes. If you turned out the pockets of his black denim jacket, you would find, alongside Aeschylus and Sophocles and miscellaneous pencils and a penknife and a damp handkerchief, a good store of pudding-raisins. He could make a supper of these raisins, just by themselves, eating them one by one from a particular flowered china plate. Honey, of course, he loved especially, slathered on bread and butter or crunched in the comb until the sticky goo ran down his chin. So sweet was his tooth that he would tiptoe up to pine trees and lick their resin, hoping it would taste as treacly as it looked.

Yet to have such saccharine tendencies at the start of the 19th century was politically tricky. The easiest way to make things sweet, then as now, was with white sugar. This was bought as a loaf, stored in a drawer, chopped with a knife as needed, pounded in a mortar and served in a bowl: with tongs or spoons if elegant, with fingers if not. But the filthiness of the servant's nails was not the worst of it. Sugar's problem was much more serious and "ghastly", to use a favourite Shelley expression. In the words of the Baron d'Holbach, a famous materialist philosopher, not a cask of it came into Europe "to which blood is not sticking".

The young Shelley read Holbach avidly. But he preferred the poems of Robert Southey; and Southey was even more explicit about where sugar came from.

The scorching Sun As pityless as proud Prosperity, Darts on him his full beams; gasping he lies Arraigning with his looks the patient skies, While that inhuman trader lifts on high The mangling scourge. Oh ye who at your ease Sip the blood-sweeten'd beverage! Thoughts like these Haply ye scorn: I thank thee Gracious God! That I do feel upon my cheek the glow Of indignation... Sugar was planted, cut and refined in conditions of appalling barbarity in the British-governed West Indies. Until the trade was stopped by the efforts of William Wilberforce and by act of Parliament, the slaves had been shipped there on vessels chartered out of Liverpool and Bristol, the two biggest slave-trading cities in the world. In 1787 alone, 38,000 shackled slaves were transported in English ships. Even after the trade stopped, the slavery persisted; it was not abolished in the British empire until 1833-34, and the stigma of slave-production clung to sugar for a good deal longer.

For young radicals, therefore, sugar was difficult to tolerate. Distaste for it was the first proof of the romantic and poetic imperative to feel the sufferings of others. It also marked—to put it in modern terms—the moment when consumers became globally aware, conscious that their own pleasure had involved the exploitation of other human beings many miles away. As a young man devoted to liberty, justice and philanthropy, Shelley was bound to approach sugar with a very long spoon.

In 1792, the year he was born, an organised consumer boycott had started against West Indian sugar. It was probably the world's first. Like all boycotts since, this one was fired by pamphlets, propaganda, questionable statistics and the sheer energy of relatively few people. The first manifesto of the Anti-Saccharine Society deliberately shocked the public by showing a cross-section of a slave ship, the shackled men packed in head-to-toe like sardines. The society claimed that if 38,000 families abstained, the planters' profits might fall so far that the trade would end.

At the peak of the boycott, according to Thomas Clarkson, one of its leaders, at least 300,000 people had given up sugar. Grocers reported that sales were falling by half. According to James Gillray, the vitriolic chief-caricaturist of the day, abstention even reached Buckingham Palace, where George III and Queen Charlotte urged the sulking princesses to take their tea unpolluted: "O my dear Creatures, do but Taste it! You can't think how nice it is without Sugar:—and then, consider how much Work you'll save the poor Blackamoors by leaving off the use of it! —and, above all, remember how much expence it will save your poor Papa!"

# The tyrant's friend

With the abolition of the slave trade in 1807, the boycott withered. No one could quite agree whether it had done the trick; slave revolts in the colonies might have had more impact. And the general public had never really got the idea. "I own I am shock'd at the purchase of slaves," wrote William Cowper, speaking for many:

I pity them greatly, but I must be mum, For how could we do without sugar and rum? Especially sugar, so needful we see, What? give up our desserts, our coffee and tea!

In radical circles, however, West Indian sugar remained in disgrace. The job, after all, was only half done. Or perhaps less than half: Shelley, for one, did not believe the British interest in the trade had ended. In 1824, two years after Shelley's death, another boycott on sugar was proposed. Shelley himself had two particular reasons for avoiding the blood-caked white powder: the oppression it represented, and its importance for the nefarious projects of the British government. Sugar was a supremely handy commodity, a luxury in universal use that was easily taxed at entry. The governments of Pitt, Grenville and Liverpool made full use of it to fund what Shelley called their "liberticide" wars against the revolutionist Americans and the French. By 1815 the tax on sugar brought in almost £3m a year, more than the revenue from wine or tobacco: a sweet slush-fund for tyrannous behaviour.



### Bridgeman

Yet to give up sugar was no small sacrifice for Shelley, or for most other Britons at the time. On average each family consumed five pounds (2kg) a week, and sugar was the country's biggest import. Between 1650 and 1800 British consumption had risen by 2,500%. Eating of sugar was driven by drinking of tea, and sweetened tea had become the beverage of choice. It was served in the primmest parlours, but also quaffed by labourers beside the roads.

For Shelley, tea-drinking was a passion. He freely downed cup after cup. When people called him an atheist (which he was), he would reply that on the contrary he was a *théist*. But into tea, normally, went sugar. Shelley seems to have tried to avoid the problem by going for the best green tea which, unlike black tea, was smooth and sweetish by itself. But in general the only sweetness a true lover of liberty could allow himself in tea was the kind Shelley found at the home of his friends the Boinvilles in 1814: the delicate grace of a young woman as she handed him a cup, and her tenderness as she sponged him down afterwards (he having spilt the stuff in his emotion).

As the etiquette of tea-drinking was complicated, so too was the etiquette of West Indian sugaravoidance. The wilder elements conducted public smashings of teacups besmirched by sugar, but most abstainers tried to make their point more politely. Some bought East Indian sugar instead, which was a good deal more expensive. Grocers advertised this as sugar produced by freemen, though it later transpired that many slaves laboured in those canefields too. Such sugar, nonetheless, could be served in gold-rimmed bowls bearing the words "Not produced by Slaves". When tea was served, the hostess would ask: "Are you a friend of the planter?" The expected answer was no; in which case no sugar would be offered.

In 1817 Thomas Love Peacock—a friend and neighbour of Shelley's in those days—wrote a teataking scene in his comic novel "Melincourt". The host, one Sylvan Forester, was based on Shelley. Forester was the organiser of the local Anti-Saccharine Society, never suffering "an atom of West Indian produce to pass my threshold", including the sugar concealed in currant-jelly. When a guest, helping himself to tea, mildly observed that the sugar was missing, he drew down a rant that ended: "How can the consumer of sugar pretend to throw on the grower of it the exclusive burden of their participated criminality?...the use of sugar is economically superfluous, physically pernicious, morally atrocious, and politically abominable." The guest, shattered, "poured some cream into his unsweetened tea, drank it, and said nothing".

He could have found arguments against, of course. Abstainers were told that their virtuousness was hurting commerce and depriving the country of revenue. By cutting the planters' profits, they might also be worsening the condition of the very slaves they assumed they were helping. But most of all, they were hypocrites. If they were truly serious about boycotting slave produce, they would also eschew the coal in their fires and the shirts on their backs, both produced under dreadful conditions in Britain itself.

Shelley, though he read accounts of the northern cotton mills, and was horrified by them, boycotted neither the coal nor the shirts. Like everyone else's, his consumer rage was selective. And then there was his sweet tooth.

His friend Thomas Jefferson Hogg caught him one day making a peculiar dish called panada. He tore off "a surprising quantity" of bread, piled it in a bowl and poured on boiling water. Then he strewed it with nutmeg, which made it look interestingly gory. "I lap up the blood of murdered kings!" screamed the poet, applying the spoon. And then the finishing, irresistible touch: a sprinkling of loaf sugar, the blood of slaves.

# Document 4

# Why chocolate is 'good for teeth' Metro 18 May 2007

Most of us cannot resist the temptation to bite into some. And now a chocolate maker reckons a touch of the dark stuff is actually good for our teeth. Cadbury claims chocolate is 'not as bad' for the teeth as people may believe and brushing with it is the perfect way to ensure a gleaming set of gnashers. The natural substances in cocoa help to stave off plaque, it claims. But the British Dental Association dismissed the idea and urged people to stick to using toothpaste. 'While some research claims that cocoa may help prevent tooth decay, the sugar associated with chocolate certainly doesn't,' a spokesman said. 'Sugary food is a major cause of tooth decay.' Cadbury's claims are based on a study which also says chocolate improves circulation and ensures a healthy heart. But the British heart Foundation says chocolate is more often a cause of heart disease.

# Milking it

# Adapted from The Guardian, Tuesday May 15, 2007

It was in 1977 that campaigners first called for a boycott of Nestlé because of its aggressive marketing of formula milk in the developing world. Thirty years on, have Nestlé and the other baby-milk firms cleaned up their act? Joanna Moorhead travels to Bangladesh to find out

Eti Khuman's face lies cradled on her mother's shoulder, her cheek resting in against Mina's collarbone. Eti is beautiful, but she is poorly: her breathing is heavy, and Mina has the distracted look of a mother who is very worried indeed. Eti's illness - first vomiting, then diarrhoea - struck without warning. Like all mothers in Bangladesh, Mina knew to fear diarrhoea: in this country, diarrhoea can kill. So she wasted no time in bringing her eight-week-old daughter here, to the main diarrhoea hospital near her home in the capital, Dhaka.

Eti was admitted, and now she and Mina are in the main ward, a sweltering room so packed with beds that there is barely space to walk between them. It's a general ward, but most of the patients are babies. Some, like Eti, are being held by their mothers: others lie quietly on their beds attached to drips. Not one is crying: they are all much too weak for that.

Twenty-five years ago, when Dr Iqbal Kabir first came to work at this hospital, small babies were almost unknown as patients. Today, he says, infants make up as many as 70% of admissions.

The reason? Kabir shakes his head, and points to a poster on the wall above Eti's bed. The same poster is displayed, many times, around the ward. It shows a baby's bottle, with a big cross drawn heavily through it. The message is clear. "Bottlefeeding is harmful," says Kabir. "Because bottlefed babies get diarrhoea, since their formula is mixed with dirty water and since their bottles are not sterile. Do you know how many breastfed babies are admitted here with diarrhoea? The number is almost zero."

Eti has been bottlefed almost since birth: Mina says she wanted to breastfeed, but when she had difficulties there was no one to give advice or support. Mina's story was typical of those of many of the mothers I met in Bangladesh: when she hit problems and went to a doctor, the suggestion was to try formula. In doctors' surgeries and pharmacies across the country, it seems, health professionals are quick - far too quick, say breastfeeding campaigners - to suggest bottlefeeding as the way forward.

Kabir is appalled by her tale, as he has been appalled many times before: in a perfect world, he'd like to see formula milk and bottles removed from general shops, and available only as a last resort, on prescription. "It sounds extreme - but then, it sounded extreme when people first talked about banning smoking. This is the same issue - only with bottlefeeding in my country it's not consenting adults who die, it's tiny babies."

For the moment, though, Kabir's anger is directed at the manufacturers of baby formula. Like many of his fellow health professionals, he believes these manufacturers push their products too aggressively, sometimes breaching the stipulations of an international code on the marketing of formula milk drawn up in 1981, ratified by member states of the World Health Organisation, and enshrined in law in Bangladesh since 1984.

That code, in turn, had been prompted by public support of an international boycott of the products of the company that seemed most culpable 30 years ago: Nestlé. The code could have ended the boycott, but campaigners continue to flag it up because, they claim, the company - and many other baby-milk manufacturers - fail to abide by its requirements. Despite the safeguards it affords, they say, mothers in developing countries - the most vulnerable of mothers anywhere, the ones least able to afford formula milk, the ones whose babies most need the breast milk they could and should be getting for free - were being, and continue to be, targeted by corporate giants bent on carving out their share of a valuable market (Save the Children, which today publishes a report on the baby-milk

industry, reckons that the total value of baby-milk and baby-food imports is worth almost £16m a year in Bangladesh alone - but the potential, if more mothers were bottlefeeding, is a lot higher than that).

So, three decades on from the boycott's inception, I have come to Bangladesh to find out whether Nestlé has - as it claims - changed its behaviour, and is now a reformed organisation, or whether the campaigners have been right to keep up the pressure all these years, not just on Nestlé but on other formula manufacturers too.

Down the road from the diarrhoea hospital is the whitewashed Sajida hospital. Dr Khaliq Zaman is the paediatrician at the Sajida hospital: yes, he tells us, he receives frequent visits from milk manufacturers, including Nestlé, makers of Lactogen, one of the leading brands in Bangladesh.

"The reps are very aggressive - there are three or four companies, and they come in every two weeks or so," he says. "Their main aim is to recommend their product. Sometimes they bring gifts - Nestlé brought me a big cake at new year. Some companies give things like pens and notebooks, with their brand name on them. They try very hard - even though they know I am not interested, that I always recommend breastfeeding, still they come."

As we talk Zaman holds a pen with the name of a well-known brand of formula milk clearly imprinted on it: the pen isn't expensive, but the giving of all presents to health workers is prohibited under the code. So, too, is the direct promotion of their products to mothers: and yet, the evidence from Zaman is that Nestlé and other manufacturers are getting their message through to mothers none the less.

Here's how: on Zaman's desk, lots of small pads lie scattered: each contains sheets with information about formula milk, plus pictures of the relevant tin. The idea, he says, is that when a mother comes to him to ask for help with feeding, he will tear a page out of the pad and give it to her. The mother - who may be illiterate - will then take the piece of paper (which seems to all intents and purposes a flyer for the product concerned) to her local shop or pharmacy, and ask for that particular product either by pointing the picture out to the pharmacist or shopkeeper, or by simply searching the shelves for a tin identical to the one in the picture on their piece of paper. "I'd never give these pieces of paper out - when I've got a big enough bundle, I take them home and burn them," says Zaman. But that does not mean every other health worker would do the same.

At least three types of Nestlé formula are among the brands whose tear-off pads are on Zaman's desk.

Nestlé spokesman Robin Tickle denies that tear-off pads equate to promoting Lactogen. In fact, he says, the device is "essentially a safety measure. The pads are distributed as information to healthcare workers which ... is allowed under the code. Individual sheets of these are then indeed handed over to mothers, but only after the infant formula has been prescribed by a doctor." He does not accept that the code fails to distinguish between tear-off pads and other sorts of promotion, or that any piece of paper that features a picture of a product a company wants to sell is, arguably, de facto advertising.

The point, he says, is that doctors need - for safety reasons - to make clear to women whether they need Lactogen 1 (for younger babies) or Lactogen 2 (for older ones). So it isn't, then, simply a case of Nestlé exploiting a loophole in the international code? Absolutely not, says Tickle: Nestlé is, he says, one of the largest private distributors of information about the benefits of breastfeeding. And yet, as I tell him, I saw no evidence whatsoever of any Nestlé-sponsored pro-breastfeeding literature, despite spending two days touring hospitals, maternity wards and paediatric clinics.

"The Nestle leaflets with the picture of Lactogen violates the Code if given to mothers," says Costanza de Toma, author of the Save the Children report. "The truth is that formula manufacturers are clever - they look for grey areas in the code, and they exploit them." Given that the code does not allow them direct access to mothers, she alleges, the companies have become adept at channelling their efforts into getting health workers on side. In any country, but particularly in a country such as Bangladesh

where antenatal education is minimal, and where access to other sources of information is limited, the messages new mothers get from doctors, nurses and midwives are crucial. Many of the women I met said it was precisely these people who had suggested a move to not just formula in general, but a specific make - often Lactogen.

Samsun Shahida Akhter Rita, 19, mother of 12-week-old Mim, told me she had gone to a doctor because she was worried about how much Mim was crying. "The doctor said to try Lactogen ... he said give breast milk as well, but try Lactogen." (Breastfeeding experts warn that - aside from the dangers of dirty water being used - giving even some formula milk undermines the breastfeeding process.)

Another young woman, 17-year-old Samsun Nahar Shenli, mother of 13-week-old Tanjila, told me she was advised to start bottlefeeding on the first day of her baby's life. "I talked to the doctor and he said to put her on a certain type of formula. He said the formula and breast milk were very similar, with the same vitamins." Since then, she says, four of her friends have had babies and when they've encountered problems with breastfeeding, she has passed on the word to them to try My Boy.

One of the problems with the WHO code - apart from its many grey areas - is how it is policed. Many countries, Bangladesh and the UK included, have backed its requirements up with legislation. But, says Save the Children, WHO and Unicef could do more. "The WHO ... must be bolder in getting companies to comply," it says in today's report. "Unicef must ensure that compliance with the code becomes a measure of progress on countries' implementation of the UN Convention on the Rights of the Child."

Within Bangladesh, there is a feeling that if breastfeeding campaigners take their eye off the ball for even a moment, the formula companies will quickly gain ground. At the Institute of Public Health and Nutrition in Dhaka - the government body charged with implementing the curbs on formula manufacturers - director Professor Dr Fatima Parveen Chowdhury is looking askance at several tins of formula milk piled up on her desk. She frowns at the cartoon pictures on the cover - too attractive, she says; too tempting - and frets over the wording on the cans. "The code requires companies to put words on the can saying there is no substitute for breast milk, but on this can those words are too small, it's written in tiny letters that it's a breast-milk substitute, and it won't do," she says.

There are other problems, too: many companies that sell formula milk in Bangladesh have failed in their legal duty to register with her department, and that makes it difficult to keep track of what they're up to. "I talk to companies and in front of me they seem to be reasonable," Chowdhury says. "But I'm not convinced. We have to be watchful. They push their products in different ways. They are doing wrong things. They are very technical, very sly."

Or even, sometimes, outrageously flagrant. Public advertising by baby-milk manufacturers is explicitly banned in the WHO code and in Bangladeshi law, but Ahmed takes me to a doctor's waiting room in a Dhaka suburb whose walls are adorned with posters showing healthy-looking babies, and the names of baby-milk manufacturers (not Nestlé, in this case). Strangely, it seems to me, the babies in the posters are all Caucasian: but Ahmed has an explanation. "For many people here, what white people do is the right thing to do," he says. "So putting white people on posters like these sends out the message that it's the western way, the best way. It's one of the many subtle ways in which breastfeeding is undermined here."

So is breastfeeding declining in Bangladesh? It's difficult to tell, says Dr Swapn Roy, secretary general of the Bangladeshi Breastfeeding Foundation, because the statistics are not reliable. Around 95% of mothers are believed to start breastfeeding, but by one month the figure is down to maybe around 89%, and at six months (the age to which, under WHO recommendations, all babies should be wholly breastfed), the figure is maybe 25%, but could be as low as 16%. Anecdotally, many health professionals feel the tide is shifting against them, and if you cast around at hospital paediatric clinics, as I did last week, there is certainly no shortage of mothers who bottlefeed their babies.

No shortage of mothers, and no shortage of sad tales. Because bottlefeeding is more than a health tragedy in this country: it is an economic tragedy, too. Happi Akther, 35, talks to me as she waits to see a doctor about her nine-month-old son's flaky-skin problem: Nur has been bottlefed, she says, since he was about a month old. "I felt I didn't have enough milk," says Happi, whose two previous babies both died soon after birth. "What else could I do? No one had any other ideas." (In fact, breastfeeding experts believe at least 98% of women - even those on nutritionally deficient diets in developing countries such as Bangladesh - can make sufficient milk to feed their babies, given proper advice and support.) Nur has been fed on Lactogen from the outset, but his formula, she says, costs her and her husband Gias, who works in a mustard-dyeing factory, around 800 taka (£2) a week. And if that doesn't sound much, set it against the fact that Gias earns only £6 a week. "We can't afford it at all," says Happi, shaking her head. "The milk uses up all our money." All the mothers I spoke to - most of whom were non-working wives whose husbands worked in factories or did manual jobs - had similar stories. (Of the 10 women I interviewed in the clinics, only one said she had begun using formula because she needed to go back to work.)

For some families, the burden of buying formula milk is simply too much. "They can't afford to mix it at the required proportion, so to make it go further they use too little powder," says Dr Roy. "Or they resort to using ordinary powdered milk, which is a lot cheaper to buy than branded baby formula. The result is babies whose milk is little more than what you might call white water."

According to Save the Children's report, infant mortality in Bangladesh alone could be cut by almost a third - saving the lives of 314 children every day - if breastfeeding rates were improved. Globally, the organisation believes, 3,800 lives could be saved each day. Given that world leaders are committed to cutting infant mortality by two thirds by 2015 as one of the Millennium Development Goals, protecting and promoting breastfeeding is almost certainly the biggest single thing that could be done to better child survival rates.

But the formula companies, despite the international code, continue to undermine campaigners' efforts. Throughout the west as well as in the developing world, the amounts spent on "breast is best" campaigns are dwarfed by the amounts food manufacturers spend on promoting their products: in the UK, for example, Save the Children reckons that for every £1 spent in 2006-7 on breastfeeding promotion, £10 was spent by manufacturers on advertising and promoting baby milk and foods. If companies such as Nestlé genuinely wanted to do what Tickle says they want to do, which is support breastfeeding, there is a simple way forward: convert its efficient, and effective, network of sales reps into an equally efficient and effective network of breastfeeding advisors. With the right support, there is no doubt that babies such as Eti Khuman and Nur Akther would be breastfed, along with all the other babies whose mothers I spoke to in Bangladesh, because all were very clear about one thing, which is that breastfeeding would be preferable to the expense of formula and the dangers of diarrhoea.

Back in Dhaka, at the diarrhoea hospital, Eti is on the mend. She and her mother Mina have spent time with a breastfeeding counsellor, and Mina has agreed to try to start breastfeeding again. Dr Kabir is delighted - he says as many as 70% of mothers who give up breastfeeding can get their milk going again, given proper support and advice. All the same, it would have been infinitely better if women such as Mina never stopped breastfeeding in the first place, and that would be easier to achieve if formula-milk companies such as Nestlé curbed their efforts to sell their products. Because the truth at the centre of this story is this: for babies such as Eti and Nur, in countries like Bangladesh, there is no healthy substitute for breastfeeding.

# The history of the Nestlé boycott

Henri Nestlé, founder of the world's largest food and drink company, is credited with being the **inventor of formula milk**, back in 1867. By the late 20th century, the formula-milk market had grown into an industry worth billions of dollars worldwide, and Nestlé was a major player.

With such a huge market at stake, formula companies were accused of acting in ways calculated to **undermine breastfeeding mothers**, giving out free samples of their products and targeting women directly through advertising campaigns. The marketing message was that formula was as healthy as breast - even though in some countries the women had **no access to clean water** to mix up the formula with. In some instances, cans of formula were being sold with the instructions in the wrong language for the women being targeted.

These allegations first came to prominence in the late 1970s, in a notorious court case. The charity War on Want had published a pamphlet called The Baby Killer in 1974. When it was released (in amended form) in Switzerland with the title Nestlé Kills Babies, the food giant began a legal suit. It eventually won the case, but it was a Pyrrhic victory: the organisation responsible for publishing the booklet in Switzerland was ordered to pay only a token fine.

The following year, 1977, saw the start of calls for a **boycott of all Nestlé products** in the US; the boycott quickly spread to Europe. In 1981, as a result of the boycott, the World Health Assembly (the decision-making body for WHO) adopted the International Code of Marketing of Breast Milk Substitutes, calling it "a minimum requirement" to be adopted "in its entirety". In 1984, Nestlé agreed to implement the code, and the boycott was officially suspended by the groups who had done most to promote it. But in 1988 the International Baby Food Action Network (Ibfan) alleged that baby-milk companies were flooding health facilities in the developing world with **free and low-cost supplies**, and the Nestlé boycott was resumed the following year. In 2000, Nestlé's chief executive said the company would ensure labels always had instructions in the appropriate language - but campaigners claim many aspects of the code continue to be violated, and argue that consumers should still boycott the company.

No one argues that Nestlé is the only company to have been involved in less-than-perfect practices - Ibfan and, in the UK, the campaigning group Baby Milk Action, say they target the company because they claim it has violated the code more than any other single company worldwide, and also that - as a market leader - it should be **setting an example**.

Nestlé is tight-lipped about the effect of the boycott on its sales or public image. But, 30 years on, feelings continue to run high.

# What is the Mediterranean diet?

# Aida Edemariam *The Guardian*, Wednesday 16 May 2007

In the daily barrage of conflicting health advice, one theme stands out - eat a Mediterranean diet, and you will live a longer, healthier life. The latest addition to a list that includes reductions in childhood asthma, hay fever, and Alzheimer's is a 12-year study from the US which claims that eating the Mediterranean way can halve the risk of serious lung disease.

But 21 different countries border the Mediterranean - so where exactly is this fabled diet to be found? Greece? Italy? Lebanon? Minoan Crete? Paul Gayler, executive chef at the Lanesborough Hotel in London and author of the book Mediterranean Cook, declines to be specific. If he had to choose one typical country with a typical diet? "I suppose Italy." Then he qualifies it. "Spain and Italy. Or southern France."

"It's a lighter type of eating, isn't it," he says. "More things are grilled rather than fried." He goes on to cite vegetables, especially tomatoes, "low in fat" tuna and swordfish and, of course, olive oil (there is even a study which claims that taking four teaspoons a day can defend against cancer).

Not everyone is persuaded. "One thing they never tell you about the Mediterranean diet," says Matthew Fort, author of Eating Up Italy: Voyages on a Vespa, "is that in southern Italy, southern Spain and Sicily the fat used in cooking is pig fat and in North Africa it's mutton fat. Our understanding of the Mediterranean diet bears little resemblance to the diet of real people."

Fort argues that poverty has kept many reliant on vegetables, pulses, and cheap fish. Now there is more money, there is more meat, more fat, more obesity. It seems the "Mediterranean diet" is just a convenient shorthand for an ideal.

Ethical food Good food?

From *The Economist* print edition 7 December 2006

If you think you can make the planet better by clever shopping, think again. You might make it worse



"You don't have to wait for government to move... the really fantastic thing about Fairtrade is that you can go shopping!" So said a representative of the Fairtrade movement in a British newspaper this year. Similarly Marion Nestle, a nutritionist at New York University, argues that "when you choose organics, you are voting for a planet with fewer pesticides, richer soil and cleaner water supplies."

The idea that shopping is the new politics is certainly seductive. Never mind the ballot box: vote with your supermarket trolley instead. Elections occur relatively rarely, but you probably go shopping several times a month, providing yourself with lots of opportunities to express your opinions. If you are worried about the environment, you might buy organic food; if you want to help poor farmers, you can do your bit by buying Fairtrade products; or you can express a dislike of evil multinational companies and rampant globalisation by buying only local produce. And the best bit is that shopping, unlike voting, is fun; so you can do good and enjoy yourself at the same time. Sadly, it's not that easy. There are good reasons to doubt the claims made about three of the most popular varieties of "ethical" food: organic food, Fairtrade food and local food. People who want to make the world a better place cannot do so by shifting their shopping habits: transforming the planet requires duller disciplines, like politics.

# Buy organic, destroy the rainforest

Organic food, which is grown without man-made pesticides and fertilisers, is generally assumed to be more environmentally friendly than conventional intensive farming, which is heavily reliant on chemical inputs. But it all depends what you mean by "environmentally friendly". Farming is inherently bad for the environment: since humans took it up around 11,000 years ago, the result has been deforestation on a massive scale. But following the "green revolution" of the 1960s greater use of chemical fertiliser has tripled grain yields with very little increase in the area of land under cultivation. Organic methods, which rely on crop rotation, manure and compost in place of fertiliser, are far less intensive. So producing the world's current agricultural output organically would require several times as much land as is currently cultivated. There wouldn't be much room left for the rainforest.

Fairtrade food is designed to raise poor farmers' incomes. It is sold at a higher price than ordinary food, with a subsidy passed back to the farmer. But prices of agricultural commodities are low because of overproduction. By propping up the price, the Fairtrade system encourages farmers to produce more of these commodities rather than diversifying into other crops and so depresses prices—thus achieving, for most farmers, exactly the opposite of what the initiative is intended to do. And since only a small fraction of the mark-up on Fairtrade foods actually goes to the farmer—most goes to the retailer—the system gives rich consumers an inflated impression of their largesse and makes alleviating poverty seem too easy.

Surely the case for local food, produced as close as possible to the consumer in order to minimise "food miles" and, by extension, carbon emissions, is clear? Surprisingly, it is not. A study of Britain's food system found that nearly half of food-vehicle miles (i.e., miles travelled by vehicles carrying food) were driven by cars going to and from the shops. Most people live closer to a supermarket than a farmer's market, so more local food could mean more food-vehicle miles. Moving food around in big, carefully packed lorries, as supermarkets do, may in fact be the most efficient way to transport the stuff.

What's more, once the energy used in production as well as transport is taken into account, local food may turn out to be even less green. Producing lamb in New Zealand and shipping it to Britain uses less energy than producing British lamb, because farming in New Zealand is less energy-intensive. And the local-food movement's aims, of course, contradict those of the Fairtrade movement, by discouraging rich-country consumers from buying poor-country produce. But since the local-food movement looks suspiciously like old-fashioned protectionism masquerading as concern for the environment, helping poor countries is presumably not the point.

# Appetite for change

The aims of much of the ethical-food movement—to protect the environment, to encourage development and to redress the distortions in global trade—are admirable. The problems lie in the means, not the ends. No amount of Fairtrade coffee will eliminate poverty, and all the organic asparagus in the world will not save the planet. Some of the stuff sold under an ethical label may even leave the world in a worse state and its poor farmers poorer than they otherwise would be.

So what should the ethically minded consumer do? Things that are less fun than shopping, alas. Real change will require action by governments, in the form of a global carbon tax; reform of the world trade system; and the abolition of agricultural tariffs and subsidies, notably Europe's monstrous common agricultural policy, which coddles rich farmers and prices those in the poor world out of the European market. Proper free trade would be by far the best way to help poor farmers. Taxing carbon would price the cost of emissions into the price of goods, and retailers would then have an incentive to source locally if it saved energy. But these changes will come about only through difficult, international, political deals that the world's governments have so far failed to do.

The best thing about the spread of the ethical-food movement is that it offers grounds for hope. It sends a signal that there is an enormous appetite for change and widespread frustration that governments are not doing enough to preserve the environment, reform world trade or encourage development. Which suggests that, if politicians put these options on the political menu, people might support them. The idea of changing the world by voting with your trolley may be beguiling. But if consumers really want to make a difference, it is at the ballot box that they need to vote.

Copyright Acknowledgements:

Document 1 Edible Insects. New Scientist, 17 March 2007.

Document 2 Pastures New. New Scientist, 21 April 2007.

Document 3 Sugar. The Economist, 23 December 2006. Document 4 Why Sugar Is Good For Teeth. Metro, 18 May 2007.

Document 5 Milking It. The Guardian, 15 May 2007. Document 6 What is the Mediterranean Diet? The Guardian, 16 May 2007.

Document 7 Ethical Food, Good Food? The Economist, 7 December 2005.

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