



**United Nations Decade of Education for Sustainable Development  
(2005-2014)**

**Draft**

**ESD media training and resource kit**

**Prepared for UNESCO  
by the Thomson Foundation**





UNESCO's ED and CI sectors, since the joint media workshop done with UNESCO Bangkok in Bangkok in December 2005, have been working with Thomson Foundation (Cardiff, UK) [www.thomsonfoundation.org](http://www.thomsonfoundation.org) on developing an ESD media training and resource kit for media professionals.

The final version of the kit will contain:

(i) a handbook with guidelines for journalists to enable them to write and broadcast in a way which will enable readers/viewers/listeners to understand SD; exemplars of good writing/TV and radio coverage of SD and ESD topics; a glossary of terms; modules that include development reporting, news writing, interviewing, case study reporting, and feature writing, which will enable journalism trainers to deliver SD/ESD skills sessions to print, broadcast and



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**\* Action point:**

- § What will the probable impacts of climate change be for your country? Will they all be negative, or might you gain something?
- § Write a brief, reader-friendly guide to climate change: what it is, what it will mean nationally, what people can do to prepare for it.
- § Write a leader addressed to your government on the climate policies it needs to adopt.

But there is a constant chorus of voices saying that climate change is not a story at all, or certainly not in the way it is usually reported. These are the voices of the climate sceptics. Some argue that the atmosphere is not warming enough for us to worry about. Others agree that the changes are occurring, but say the causes are entirely



**\* Action point:**

- § How do you reply to a reader who writes to the editor demanding you should be dismissed for scaremongering when you have simply reported the views of scientists like Jim Hansen?
- § Write a feature which explains the urgency of confronting climate change without frightening your readers so much that they despair.
- § Your paper is producing a supplement on the world in 2020 for secondary schools. Write a 500-word piece for it on climate change.

But what most people confronted with the prospect of climate change want to know is: what can anyone do to prevent it? Preventing or more likely reducing the impacts of a warmer world is one of the strategies governments are pursuing, with more or less commitment. It is called mitigation, the attempt to limit the effects of the build-up of greenhouse gases. So a key part of your job is to tell your readers what is possible, scientifically and politically, and what is actually being done - and sometimes there are big differences between the two.

The other way governments are preparing for the inevitable is called adaptation - accepting that climate change is happening and will gather pace, and trying to change their economies and societies so that they will have a chance of riding out the enormous upheavals that are coming. Most governments accept that both mitigation and adaptation are vital. Both strategies will mean radical changes in the lives of your readers. Telling them what lies ahead will help them to come to terms with an uncertain future.

**\* Information point:**

- § The world's first attempt at mitigation is the Kyoto Protocol. For the text, see <http://tinyurl.com/69u36>. For a Q&A, see <http://tinyurl.com/y8lwga>
- § The US Environmental Protection Agency has a site, <http://tinyurl.com/owkal>, on how individuals can reduce their global warming impact
- § The University of Oxford's Environmental Change Unit explains how a personal carbon allowance scheme might work at <http://tinyurl.com/u9adq>

**\* Action point:**

- § Write a readers' guide to the inadequacies of the Kyoto Protocol (it will reduce greenhouse gases by about 5% if it is fully implemented) and the need for a much more far-reaching agreement to replace it.
- § Tell your readers what they can do to reduce their own emissions of greenhouse gases.
- § Write an op-ed on the Global Commons Institute's proposal for 'contraction and convergence' - allowing everyone in the world an equal, tradeable right to pollute the atmosphere with greenhouse gases.

## Chapter 2: Energy - running on empty

Energy is part of almost every story any journalist will ever write, because without energy nothing happens. So it is a story with a huge number of angles, offering opportunities to all sorts of specialists and to general news reporters as well. The headline is that there isn't enough energy, and what there is is the wrong sort.

Not enough energy? For industrialised societies the only way to keep the wheels turning is to use fossil fuels, and they're getting scarce. It does depend on who you talk to, of course. But the only really abundant fuel appears to be **coal**, with worldwide reserves likely to last for more than 150 years. **Oil** could be scarce quite soon: some experts think production will very soon reach its peak, if it hasn't already, and that it will soon start to decline. **Gas** is likely to last longer, but not very much; by the middle of this century production could have peaked in the same way as oil. **Nuclear power** is part of the answer in some countries - in France, for instance, it provides about 70% of the country's electricity. But there is still huge fear of it in parts of the world, because of the possibility of accidents and the impossibility - so far - of getting rid of nuclear waste safely and easily. Countries blessed by Nature - Norway, parts of Africa - or prepared to build large dams can use their rivers to generate **hydropower**, but globally there is little prospect of increasing its potential significantly. And for billions of people living outside the industrialised world, none of these options is available. They have to rely on wood, charcoal, farm waste or dung - organic fuels known collectively as **biomass** - for all their household needs, and on animals for transport.

**\* Information point:**

§ For energy basics, a good starting point is the International Energy Agency, <http://tinyurl.com/ykjw6a>

§ For a look into the future, try "W10.97.7067 Tm(Agency, )Tjhe future, try "W10asiny

short of a massive war or epidemic which cuts human numbers ruthlessly, it is quite hard to see why present trends will not continue.) So when oil or gas production does peak, there will be a crisis not far ahead, as a dwindling supply has to meet a growing demand.

When that crisis comes, industrialised countries will face a massive and sudden change, unless they have found new forms of energy. It won't just be heating and lighting that run short. Oil drives about 90% of the world's transport. It's the basic material for many everyday staples like plastics, and it's used for pharmaceuticals. Without oil agriculture would screech to a halt. So a world deprived of oil would be a cold, dark, sick and hungry planet.

**\* Information point:**

- § See how China's thirst for oil is growing at <http://tinyurl.com/3mc2b>
- § And India is not far behind: <http://tinyurl.com/ybmf43>

**\* Action point:**

- § Find out which of your country's main industries have made plans for the post-oil era.
- § Tell your audience about the balance between public and private transport: how



are unlikely to be available in time). Most experts say the



## **Chapter 3: Pollution - the poisoned planet**

The reality of pollution and waste is unattractive, but as a story it has a lot going for it. It's all around us, it's often getting worse, it takes many forms, and it can be a real health threat. And - cleaning it up can be a money-spinner. So it's a

- § It will probably startle many of your readers if you simply tell them what air pollution does to the human body - and how it is almost certainly shortening their lives. Telling the story is what readers look to us for.
- § Talk to people who cause air pollution (taxi drivers, farmers, power station workers) and who suffer its effects (spend an hour in a smoky home burning biomass). First-person accounts usually bring stories to life.

**Water pollution** is another wholesale killer. More than two million people die every year from diarrhoea and similar diseases spread in water. In fact four out of every five illnesses and deaths in the developing world are caused by waterborne diseases. The global total killed by poor water -- more than five million people a year - is 10 times the number killed in wars around the world. Often the reason why they have to rely on polluted water is because they have no sanitation: the river they use to drink from is someone else's toilet. Then there is the damage caused by discharges from factories and farms: when rain runs off farmland into rivers and lakes it may well be carrying fertilisers and pesticides that have washed off the plants and the soil.

In 2000 the number of people without safe water was 1.2 billion - one person in every five worldwide. And twice as many still have no proper sanitation. The World Commission on Water has estimated that an extra \$100bn a year would be needed to

one group of man-made chemicals to changes in the genitals of animals like polar bears. The chemicals, called endocrine disruptors, interfere with glands and hormones - and may be doing the same to humans.

One of the worrying aspects of chemicals like these is the way they spread far and wide. There is virtually no industry in the high Arctic. But the chemicals are there all the same, carried north by winds and ocean currents. National frontiers do not protect anyone against pollution.

The chemical industry says its products are safe. But campaigners are not so sure. There are about 70,000 chemicals on sale worldwide, with around 1,500 new ones coming onto the market annually. At least 30,000 of them are thought never to have been tested for their potential risk to people. And the number of chemicals tested for their combined effects is small, although they can behave quite differently when used together. One problem is that dangerous chemicals are often necessary for human life and well-being, and there is a tightrope to tread between their good and bad effects.

**\* Information point:**

- § The Polar Environmental Centre, <http://tinyurl.com/sm3s7>, explains how the pristine Arctic has been contaminated
- § See the Norwegian Polar Institute at <http://tinyurl.com/y7kxo4> on why you should avoid seabirds' eggs
- § Some chemicals are leading to animals in effect changing sex: <http://tinyurl.com/y1fotu>
- § But there are often no easy answers. See <http://tinyurl.com/e77ud> to find out why the World Health Organisation had a rethink
- § ~~See <http://tinyurl.com/4b0m5a7> for more information on the Arctic region~~

**\* Information point:**

- § In parts of Europe land contamination is serious: in developing countries it can be as bad, or worse. See examples from Pakistan, <http://tinyurl.com/yaacz5>, Ivory Coast, <http://tinyurl.com/yczxaf>, and Ghana, <http://tinyurl.com/yk5m53>
- § The Basel Convention (on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal) is an international treaty designed to reduce the movements of hazardous waste between nations, and specifically to prevent transfer of hazardous waste from developed to less developed countries: <http://tinyurl.com/ybz62z>
- § Worried about the soil that grows your food? Perhaps you should be: <http://tinyurl.com/sbsba>

**\* Action point:**

§



So what may run out? In theory anything may, and in logic everything will, one day. But science and technology will find replacements for some of the resources that keep us going, and economists say human ingenuity and the workings of the market will delay the crisis for a long time yet. The idea is that as something becomes scarcer it also becomes more expensive, so there is more profit to be made by finding it, however inaccessible it is - like oil in deep-sea basins or in shale and bitumen deposits.

Other sections of this chapter look at the prospects of the world running short of energy and water, and entering a new wave of mass extinctions. This part examines two other possible crisis points - forests and fishing. Both are especially important for developing countries as they provide food and income for millions of people.

Forests matter, obviously, for the trees they contain, but they are much more than that - a community of species built up over thousands or millions of years and impossible to reproduce once they've gone. They are going fast - an area the size of 36 football pitches vanishes every minute. About one person in five worldwide depends on forests for their livelihood, and 60 million indigenous people rely on them for food. Beyond that, forests purify the air, conserve watersheds and improve freshwater quality. By stabilising the soil they help to prevent erosion and floods. They are home to myriad species, some of them highly endangered.

So deforestation is a serious problem, not simply to the countries which are losing their forests but to the rest of the world as well. Nobody can afford the continued loss of species and the destruction of the potential for air purification and other environmental services which somewhere like the Amazon or the south-east Asian forests represent.

It doesn't have to be like this. There are ways of using forests sustainably, as the Forest Stewardship Council knows: its schemes cover over 78 million hectares in more

§ FoE's table of illegal tropical timber imports to Europe is at <http://tinyurl.com/yz5zkq>

**\* Action point:**

§ Are your forests healthy, or dwindling? Who is responsible for them, and who profits from them?

§





## **Chapter 5: Water - the thirsty century**

Water is something many of us take for granted. Perhaps you live in a country with ample water supplies and find it difficult to see a way of getting a story out of it. But in a world that wants to live sustainably water is a story for everyone: many people today do not

**\* Action point:**

- § Is your country already suffering water stress or scarcity? Where is it likely to be in 2025?
- § Does anyone go short of water today? Who?
- § What is the incidence of water-borne disease? Is it rising or falling?
- § How many people lack piped water and at least basic sanitation?
- § How fast is water consumption rising? How long can you meet projected demand, taking into account population growth and rising living standards?
- § Spend a day with a woman who has to fetch water because she has no domestic supply.

Providing everyone in the world with that basic supply of 50 litres a day by 2015 would take less than 1% of the amount of water we use today. It wouldn't be very expensive either. In 2000 the World Commission on Water estimated the cost at an extra \$100 billion a year - about twice the net worth of Bill Gates of Microsoft, or the amount spent annually on bottled water worldwide.

Problem solved? No - because the magic figure of 50 litres a person a day does not include the amount of water it takes to grow the food we eat. Most of the world's water supply, about 70%, is used in farming, with the rest shared by industry and households. When water runs short hunger threatens. By 2025 growing water scarcity will mean countries including Pakistan and South Africa and large parts of India and China will not be able to use enough water to irrigate their crops and feed their people. So they will have to import food - if they can find enough at affordable prices.

It's hard to think of any sort of food or drink that has not needed water to produce it somewhere along the line. A pint of British beer? That will probably have needed from four to six pints of water before you take a gulp. If you eat vegetables but no meat, though, you're helping to save water: farming a steak needs about five times as much water as growing a similar weight of cereals or vegetables. A report produced for the Swedish Government by the Stockholm International Water Institute (SIWI) in 2004, entitled *Water: More Nutrition Per Drop*, said: "For several decades, the increase in

- § How much of your food is produced locally, and how much is imported?
- § Write an editorial telling your government how it should maintain food supplies in 20 years from now when global water supplies are under more pressure.

Many people pin their hopes of feeding a water-scarce world on improved irrigation. It needs improving: UNESCO's 2003 World Water Assessment Report *Water for People, Water for Life*, representing 23 UN agencies, says almost 60% of the water used in irrigation is wasted, simply running off the soil or evaporating before reaching the crop to do any good. One of the UN's Millennium Development Goals promises to halve the proportion of hungry people by 2015. But the UNESCO report says this may not be achievable before 2030, because previous estimates of food availability failed to distinguish between rain-fed and irrigated crops.

Climate change is likely to make matters worse. Exactly which regions of the world will become wetter or drier is still unclear, but trends are emerging. One vulnerable group will probably be the millions of people in Asia and South America who depend on water from melting snow and glaciers. Rising temperatures will probably mean more rain and less snow in the mountains and snow melting earlier in the year. And the result is likely to be rivers and streams carrying more water much earlier in the year than normal. Areas with small reservoirs or none at all will be unable to hold on to the extra water, which will simply be lost as it flows away downstream. Once the glaciers have melted away there will be no other water source for the people who have relied on them.

Further downstream there is more trouble for many of the world's biggest rivers. UNESCO's 2006 World Water Development Report, *Water, A Shared Responsibility*, says most years the flow of one of China's great watercourses, the Yellow River, is too slight for it to reach the sea. The river has run dry for part of each year since 1985, and in 1997 it failed to reach the sea on 226 days. The lower reaches of the Nile, which used to carry 32 bn cubic metres of water a year, now carry just two billion. The Indus in Pakistan has lost 90% of its water since 1945. Australia's Murray River reaches the sea one year in two.

**\* Information point:**

- § For the list of the Millennium Development Goals, start with <http://tinyurl.com/ybc4o4>
- § Melting glaciers: <http://tinyurl.com/ye7w2w> and <http://tinyurl.com/yhv54u>
- § UNESCO's 2006 report is at <http://tinyurl.com/juygp>

**\* Action point:**

- § Find out what potential there is for improved irrigation, and for other agricultural methods which use less water.
- § How likely is your country to achieve all or any of the Millennium Development Goals?
- § What will the likely impact of climate change be in your region? What preparations is your government making to prepare for it?
- § Does anyone depend on glacier-fed rivers? Are they at risk of catastrophic flooding as the temperature warms? Where will their water come from in future?
- § How healthy are your rivers? Are they flowing as strongly as they did 20 years ago? What does this mean for shipping and for the people who live along the banks?

But if too little rain is falling from the skies and feeding the rivers, surely there's another answer, literally beneath our feet? Some parts of the world are blessed with huge amounts of water in underground reservoirs where it has accumulated,

sometimes over millions of years. The trouble is that two billion people depend on this groundwater, including the populations of some of the world's biggest cities - including Bangkok, Cairo, Calcutta, London, Mexico City and Jakarta. And we are often emptying the reservoirs far faster than they can refill themselves. The UN Environment Programme in 2003 said world supplies of groundwater were being exploited so fast that water tables were falling by about three metres a year across much of the developing world. In the Bangladeshi capital, Dhaka, the fall in some places has been drastically more. If you want to get an idea of how badly the world will miss the groundwater when it's gone, have a look at what Lester R. Brown, president of the Earth Policy Institute in Washington DC, has written in his book *Plan B: Rescuing a Planet Under Stress and a Civilization in Trouble* (W.W. Norton & Co., New York).

**\* Information point:**

- § UNEP on groundwater is at <http://tinyurl.com/yhvrnl>
- § The Earth Policy Institute home page is <http://tinyurl.com/yhohwt>

**\* Action point:**

- § Does your country rely on groundwater? How fast is it being depleted? Is the water

## **Chapter 6: Extinction - rushing towards oblivion**

Scientists know fairly accurately how many people there are on Earth - a little more than 6.5 billion. So it may come as a surprise that they have not been able to count how many other species share the planet with humans. It could be as few as three million, or as many as 100m - nobody can say. However many there are, science has managed so far to describe fewer than two million. And nobody knows either how fast species are sliding over the edge into extinction, or which particular species are disappearing. We are profoundly ignorant about almost everything else that makes up the web of life, the planet's biodiversity. There are at least two reasons why we need to know far more than we do if life on Earth is to be sustainable.

First, many other species can be useful, and we'd be in a mess if they weren't here. Worldwide, humans use between ten and twenty thousand plant species for medicine. About 80% of people in the developing world rely on traditional plant-based medicines, and 75% of the world's top prescription drugs include ingredients derived from plant extracts. The rosy periwinkle, found in the forests of Madagascar, has boosted the chances of surviving some forms of childhood leukaemia from 10% to 95% in the last 50 years. The Pacific yew provides the basis for a drug





**\* Action point:**

- § How can poor people in your country feed themselves, even if it means killing bushmeat?
- § How can your government earn enough foreign exchange to pay for development, even if it means destroying forests and rivers?
- § What strategy does your government have to take care of this generation without damaging the prospects for your descendants?



## Chapter 7: Population - the overcrowded ark

Population is likely to be a story wherever you live - but it can be a very different story in different places. For some countries in Europe, the problem is keeping numbers *up* enough to prevent population decline. Others are faced not with a problem over absolute numbers but with the dilemma of an ageing population, where fewer active workers will be available to support more pensioners. In many developing countries population is no longer the acute problem it used to be, because parents are themselves choosing to have fewer children, and the steep rise in numbers is levelling off of its own accord. But in some parts of the developing world, and notably in much of Africa, the problem is not only continuing but actually accelerating: bigger populations are producing more babies in an ever-increasing spiral of growth, which threatens to wipe out any prospect of development.

And of course the impact of another birth varies wildly between countries and

families, because they have better access to contraception. They also find it suits their interests to do so, because improved health means they no longer need to produce surplus children to guarantee some will survive to support them when they are old. When many children die before reaching their fifth birthday you cannot count on any of them surviving into adulthood, so you produce as many as you can.

So improving reproductive health - making sure people can have as many or as few children as they want, confident that they will survive - is key to bringing fertility rates down. UNFPA, the UN Population Fund, argues that everyone should have reproductive health and voluntary family planning services based on the principle of informed choice. The trouble is that not everybody accepts that that is a right. Some religious leaders say humans should not interfere with divine plans for populating the Earth. They can influence the politicians who control the purse strings.

**\* Information point:**

- § Reproductive Health Online, an affiliate of Johns Hopkins University, <http://tinyurl.com/yhkejh>, describes some of the factual issues connected with contraception
- § On religion, see for example the encyclical of the late Pope John Paul II, *Evangelium Vitae*, or *The Gospel of Life*, in which he spoke of 'the moral unlawfulness of contraception': <http://tinyurl.com/yhroa9>. There is also the UK-based Christian Institute at <http://tinyurl.com/yj5hb3>

**\* Action point:**

- § Is family planning available to everybody in your country?

Development (DfID) describes the US as 'pursuing a strongly illiberal line on reproductive health issues at various fora... This is part of a sustained (and well-resourced) effort to undermine and roll back consensus on reproductive health and rights reached in particular at UN conferences'. Religious campaigners often wield great influence with American policymakers - and with leaders in other countries too.

**\* Information point:**

- § Marie Stopes International: <http://tinyurl.com/yj95mw>
- § Government Response to the UK Network on Sexual & Reproductive Health & Rights Submission, *'Keeping Sexual and Reproductive Health on the Agenda'*, Department for International Development, London
- § The US Agency for International Development's homepage is at <http://tinyurl.com/okzxm>

DfID estimates that 350 million couples worldwide do not have access to modern

compulsion or money will in the end be irrelevant. With more progress on reproductive health the world might even achieve the Millennium Development Goals, which aim to halve world poverty by 2015. Reducing poverty is itself helping to reduce population. You could say the prospect of 9bn people in 2050 (up from 6bn today and just 2bn in 1900) is something we can cope with. But there are two factors that make it hard to be very confident.

One is Africa, the continent which bucks the trend towards falling numbers of births. Today one person in seven in the world is an African. By 2050 that will be almost one in four, with Nigeria, for example, the world's fourth biggest country. Millions of Africans already live unsustainable, hungry, thirsty lives.

The other factor, which is

## Chapter 8: Poverty - what choice for the poor?

"Poverty is the worst form of pollution", Indira Gandhi once said. It may be - but it's not the easiest of stories to sell to editors, or to persuade readers to look at. If you want to help people to think about sustainability, though, then poverty is inescapable. That's because the poor don't have the choices the rest of us have about looking after the environment. They cannot choose the best way to avoid polluting a river, or the most environmentally friendly way of farming, because they have to think above all about their survival.

Because they have to make immediate choices, the poor cannot think or plan long-term, which is what environmental protection needs. For example, in Malawi 93% of energy comes from wood. In Nepal and Bangladesh people strip the trees from the forest to earn a living. The result, as in Malawi: erosion and flooding. A widespread problem along tropical coasts is fishing with dynamite or other explosives, a method which can kill the coral but can also earn a day's wage. A report from the World Resources Institute (*World Resources 2005 -- The Wealth of the Poor: Managing ecosystems to fight poverty*) says: "If the natural resource base is not managed for the long term, if it is exploited and polluted for short-term gain, it will never provide the fuel for economic development on the scale demanded to relieve poverty." "Improving environmental conditions can help reduce poverty", says the World Bank. And yet the areas of greatest poverty are quite often those with the greatest natural wealth: see the Poverty Mapping site's maps which show the overlaps. One striking instance of poverty and hunger driving people to destroy their environment is the plight of some of the surviving large mammals. The Zoological Society of London reported in October 2006 that the population of hippopotamuses in the Democratic Republic of Congo had halved in the last two weeks because of poaching. Poachers also reduced East Africa's

§ If you look at the world's population today, you'll find that the *proportion* of people living in poverty is shrinking. Decent living standards are possible for more and more people. But that's only half the story, because (yet again) you need to take account of the continuing growth in the population. On that basis the

§ reduce maternal mortality by three-quarters: across the developing world, the risk





## **Chapter 9: What went wrong?**

The world as it is is unsustainable: we cannot go on as we are. Who is to blame? Putting the responsibility on someone else for things going wrong saves us having to

**Energy:** mining coal and pumping oil and gas are dangerous, dirty jobs that kill workers and ordinary citizens in accidents (the average number of Chinese coal miners killed at work *every day* is 12) or by long-term damage to their health. Burning the fossil fuels adds to natural climate change.

**Food:** producing enough food and getting it to consumers is often very destructive in industrial societies. It can involve:

§ *clearing wild places* to provide land to grow crops: in the year to August 2004 more than 26,000 square kilometres of the Amazon rainforest were burned or cut down, much of





## Chapter 10: Glimpses of Hope

Most stories are easier to write when you can picture what they are about. This chapter provides a few examples of the ways people around the world are trying to tackle some of the problems outlined earlier, and suggests places to find more case studies.

### ***Climate Change***

The German development corporation GTZ, which works to promote sustainable development worldwide, has found a way to harness the Sun to provide a water supply for people and livestock, and for irrigation: it has developed photo-voltaic water pumps. They are as efficient as small diesel pumps, need no fossil fuel and emit no carbon dioxide in use. They are also ideal for remote places and need neither maintenance nor anyone to operate them. The solar pumps cost about three times more than a comparable diesel version, but running costs are negligible, so they quickly pay for themselves. GTZ's pumps are working so far in Argentina, Brazil, Chile, Ethiopia, Indonesia, Jordan, the Philippines, Tunisia and Zimbabwe.

#### ***\* Information point:***

§ GTZ, the German development corporation, is at <http://tinyurl.com/y9pymu>

### ***Energy***

Sweden has put into service a biogas-powered passenger train which runs between Linköping, south of Stockholm, and the Baltic coast city of Västervik. Biogas, obtained from decomposing organic matter, produces much less carbon than traditional fossil fuels. The country is believed already to have about 800 buses and thousands of cars running on a mixture of petrol and either biogas or natural gas. To encourage the use of biogas several incentives are on offer to people with cars that can run on it. Parking is free in many areas, companies buying biogas cars for their employees pay less tax on them, and biogas itself is tax-free, so it costs 20-25% less than petrol. There are plans to introduce biogas trains in India.

#### ***\* Information point:***

§ See <http://tinyurl.com/ya2wpz>

### ***Pollution***

More than 2 bn people are without grid-connected electricity. An Indian businessman has put his years of experience in the solar industry to use by developing a low-cost solar lamp. The industry had concentrated on more commercial products, ignoring the needs of those in remote rural areas, which had not been considered viable. In India over 100m families rely on kerosene lamps which do not give a good light and emit smoke which can damage health. Many accidents and deaths have occurred when kerosene lamps have been knocked over. The new solar lamp can provide a bright, constant white light for up to three hours. It costs just £18 (\$32/1,400 rupees), so most people can afford it, but there is a micro-credit scheme for those below the poverty line. There are many benefits: mealtimes are better as insects can be kept away from the food; farmers can carry on working after dark; and children are able to continue with their studies safely, using a good quality light. And a serious threat to health is removed.



**\* Information point:**

§ See the *World Resources 2005* case study slide shows: <http://tinyurl.com/ynzvmp>

**Population**

In many societies, even ones where contraception is widely available, there may be resistance to using it because of tradition, culture, and family and peer pressure. UNFPA, the UN Population Fund, is experimenting with novel ways to inform women about the reproductive choices open to them. In Bangladesh early marriage and childbearing are common, yet young couples seldom seek reproductive health services. So a UNFPA-supported project identifies and registers newlywed and young couples with one or two children, and offers them one-to-one basic counselling. The programme also educates young couples about the risks of early childbearing and closely-spaced births, and provides information on maternal and child health. Contraceptive use among newlyweds in this programme more than doubled - from 19% to 39% - in four years. Unmarried young men and women also attend sessions, suggesting there may be a growing demand for information among adolescents. In Egypt, Uganda and Zambia UNFPA is part of a project that has enlisted Girl Guides, with trained peer educators and links with clinical services, to provide reproductive and general health information to refugees.

**\* Information point:**

§ UNFPA: <http://tinyurl.com/ymup37>

**Poverty**

Few countries have enough experts to reach all their rural populations in need of expertise. Methods that are used to share knowledge more widely include field schools, mobile plant clinics and radio broadcasts. Bolivia has pioneered a different approach. Its "Going Public" scheme sends agronomists to talk about technical topics in places where rural people congregate, like fairs and country bus stops. There they share their practical knowledge on ways of increasing crops, briefly and simply, with farmers on such subjects as how to control potato and peach pests and how to recognise and encourage beneficial insects. They also answer the farmers' questions, relying on their ability to offer useful advice to attract an interested audience. Similar schemes are now running in Bangladesh, Uganda and Kenya.

**\* Information point:**

§ Also have a look at the Global Plant Clinic at <http://tinyurl.com/yesgr2>

You can find many more case studies and further information about attempts to put sustainable development into action from the following sites:

**\* Information point:**

§ The UK's Department for International Development has a poverty research portal, R4D, Research for Development. Go to <http://tinyurl.com/yclzkg>

§ The World Business Council for Sustainable Development has pages of case studies on ways in which "companies work... to integrate the challenge of sustainable development into their business activities": <http://tinyurl.com/yh9ood>

§ A long list of case studies, mostly academic and arranged helpfully by both topic and country, is available at <http://tinyurl.com/yjv9cg>

§ The UK's Sustainable Development Commission has pages of case studies of projects, many of them small local initiatives and most (but not quite all!) in the UK itself, at <http://tinyurl.com/yec36k>

§ Sustainable Cities: <http://tinyurl.com/ymwj95>

- § The Division for Sustainable Development of the UN's Department of Economic and Social Affairs has a Directory of Websites of Case Studies in Sustainable Development. It is at <http://tinyurl.com/yzfyh4>
- § Hands On, the TV series from Television Trust for the Environment and Practical Action, has a page of case studies: <http://tinyurl.com/yzxf2k>
- § The UK Government's Sustainable Development Dialogues page lists projects under way in China, India, Brazil, South Africa and Mexico:







There was some support for this view in the annual *State of the World* report, published in 2006, by the Worldwatch Institute. It says the Earth does not have enough water, energy and agricultural land to allow China and India to attain Western living standards. The report said: "The world's ecological capacity is simply insufficient to satisfy the ambitions of China, India, Japan, Europe and the United States as well as the aspirations of the rest of the world in a sustainable way". If China and India were to consume as many resources per capita as Japan, then in 2030 "together they would require a full planet Earth to meet their needs", it said.

Assuming Worldwatch is correct, there are three possibilities:

- § sustainability is unattainable;
- § technology will have to find a way of bridging the gap (though it could almost certainly not solve the problems over water and farmland);
- § the developing countries will need to agree to remain permanently less developed than the rich world.

The second and third look impossible, the first unacceptable. So again, it comes down to definitions. How can we define development in a way that meets the needs not just of future generations (the Brundtland Commission's definition) but of this generation as well? Looking at the topics from chapter 2 of this handbook, here are some obvious answers, and even more obvious questions:

- § population: provide contraception to everyone who wants it, yes. But how do you overcome political, religious and cultural resistance?
- § poverty: take money from other cherished areas of expenditure, like armaments. How? Improve governance and root out corruption. Again: *how?*
- § water: produce more water. By towing icebergs from the Arctic to water-short countries (a few years ago there was a serious suggestion to do just that)? Any other ideas?
- § energy: hope that technology will provide the answers. It may, but not quickly.
- § climate: give everybody on Earth equal, tradeable rights to pollute the atmosphere with greenhouse gases. Would those accustomed to polluting freely accept rationing?
- § species loss: stop poor people destroying our biological riches, which just happen to be what they need for daily survival. How do they survive then?
- § pollution: spend what it takes to clean up the air, land and water. But where will the money come from?
- §

**\* Action point:**

- § What is sustainable development trying to sustain?
- § If we managed to achieve sustainable development, who would gain and who would lose?
- § Ask a group of teenagers what living standards they expect when they are adults, and how they would share planetary resources.
- § Write a backgrounder explaining how Contraction & Convergence would work, and what its impact would be on your country.
- § Talk to development NGOs and report what they tell you about your government's policies for ending poverty, and about their impact on the environment.
- § Spend time with people living on the poverty line: what is their 0001 Tw 10.t162ine:



The following year about 1,700 of the world's leading scientists, including most Nobel laureates in the sciences, issued the







## **Chapter 13: Selling the Story**

Every journalist knows that the job involves you in being a bit of a tightrope walker. Every story needs us to perform a balancing act, often a fairly simple one but sometimes not. There's the balance to be struck between getting the story absolutely right and meeting the newsdesk's deadline. There's the need to tell the story as fully as possible, but to stay within the word count you've been given. There's the problem of writing for a mass audience, some of whom may also be quite well-informed: you cannot assume that all your readers will share the story background and details that you know, yet you cannot afford to tell them every little thing they might have missed, because if you do you will be talking down to a lot of them - and understandably they don't like that. One of the hardest tightropes to walk, often, is persuading your editor to run a story you think is important (or not to run one you think is not worth it).ery



Editors seldom have the time to acquire much detailed knowledge of a particular subject, and it would be unrealistic to expect many of them to be sustainable development experts. But they will expect a reporter covering the patch to give them reliable advice - advice on the strength of a story, for example, the dependability and independence of a source, and the worth of running a story at all. Knowing when to say



## Chapter 14: The Sustainability Revolution

Anyone writing about a sustainable world shouldn't be too surprised to be asked what it will be like, how different it will be from this one, and what impact it will have on our lives. In one sense the answer is fairly easy, because we already know what some of the elements of that world will have to be. What we don't know, though, is what the cumulative impact of those different elements - and of others we can't yet foresee - will mean. Beyond that, we can describe some of the physical differences between our world and the one we're aiming at, but we can have less idea of some of the mental changes it will probably both require and cause. But we need some sort of picture of what we hope to achieve.

**Climate and energy:** the sustainable world relies far more on renewable energy like solar, wind and wave power. It uses energy much more efficiently, getting it to do two jobs instead of one where possible (for instance, producing both electricity and heat), and saves it (not making unnecessary journeys, not leaving appliances on standby). It does not try to find alternative energy for every purpose that consumes energy now, because it realises that sustainability means less need for mobility. So it is a world of self-sufficient communities where people can find what they need within easy reach and do not have to travel long distances for work, leisure or anything else. It values privacy much less than this generation, so public transport is seen as the norm and private vehicles are regarded as anti-social. There is much more sharing of expensive equipment and much less stress on acquiring ever more private property.

**Water:** it is a world that ensures everyone's basic needs are met before anyone's desires can be satisfied. It uses technology to make every drop count (drip irrigation, for instance, which uses far less water than the usual method). It recognises the need of the natural world for water, so it conserves wetlands. It uses groundwater onlare

It's a daunting list - an impossible one, perhaps. It is not the sort of thing to try on a hard-bitten news editor without very careful preparation. But virtually everything on it is *practically* possible. The problems are political. And the sheer improbability of us ever being able to do everything on the list is a reminder of the paradigm shift the world will have to make to move to a sustainable path.

**Information point:**

- § The Centre for Alternative Technology offers practical solutions and aims "to show that living more sustainably is not only easy to attain but can provide a better quality of life": <http://tinyurl.com/sl7fh>
- § The World Council for Renewable Energy is at <http://tinyurl.com/y5c64s>
- § The Association for the Conservation of Energy also has a useful site at <http://tinyurl.com/y5qpjc>
- § BedZED - the Beddington Zero Energy Development - is at <http://tinyurl.com/yyzboy>
- § UNEP has a freshwater portal: <http://tinyurl.com/y66hrv>
- § Its GEO Yearbook has a section on energy and air pollution: <http://tinyurl.com/txwo3>
- § The Global Commons Institute campaigns for atmospheric emission rights to be shared equally worldwide, but its argument can apply to other areas as well: <http://tinyurl.com/7gpxf>
- § A valuable link is the World Resources Institute, and especially its Earthtrends page: <http://tinyurl.com/atph>
- § The UN Population Fund, UNFPA, is at <http://tinyurl.com/y3llzo>
- § The UN Development Programme, <http://tinyurl.com/y6oplb>, is a good resource on poverty
- § Make Poverty History is a campaigners' view: <http://tinyurl.com/75o44>
- § IUCN-The World Conservation Union (it's also known as the International Union for the Conservation of Nature) is an authoritative source on the threats to species and their habitats: <http://tinyurl.com/y8597q>
- § The New Economics Foundation is at <http://tinyurl.com/y4rsee>. Have a look at its Happy Planet Index: <http://tinyurl.com/k7ao8>

**Action point:**

- § Draw up your own scenario of what a sustainable version of your country would be like. Then tell your readers, sit back, and wait for their reaction.
- § Talk to scientists and find out how sustainability could actually *improve* your readers' lives: no more travelling long distances to work for those living in self-sufficient communities, no more air pollution because they'd be using clean green renewables, etc...
- § Interview a government minister on the country's plans for sustainability.

The psychological shifts we'll have to make to build a sustainable world are staggering. They were summed up by the British environmental thinker and doer Sir Crispin Tickell, a former diplomat and then warden of Green College, Oxford. He said: "When it comes to protecting the environment, the hardest thing we have to do is to find new ways of thinking."

One new way of thinking is to recognise an old truth: that we are not so much independent as interdependent, the realisation that the world really does work as a whole - or else increasingly it doesn't work at all. New thinking means new economics, and a new value system, valuing ourselves and others for what each of us can do to

enrich life. It means a system of economics that includes the environment in the way it reckons the costs of what it produces and does. It values quality of life above gross national product. It demands a society which looks after the environment so that the economy can thrive, not the other way round. It means a world which recognises the value of what Nature gives us and does for us, and includes that in the balance sheet.

One of the radical ways to build an economy tailored to real needs will involve a step change in society's system of rewards: setting a maximum wage. Recent political wisdom in the UK and elsewhere has argued for a minimum wage as a safety net, but has shown no interest in limiting the amount people can earn at the other end of the scale. Yet Andrew Simms, policy director of the New Economics Foundation, argues that highly unequal societies tend to fall apart, the opposite of sustainability.

Professor Norman Myers, the British environmentalist and biodiversity expert, is clear what he understands by new thinking. "It's new forms of energy for a start... It's curbing population growth, including in the developed countries, because population growth in a country like Britain is more of a threat to the environment than similar growth somewhere like Bangladesh... New thinking is remembering that the winds carry no passports, and that no island is an island any more. Nowhere is isolated from the rest of us - unless we help China not to build the 550 coal-fired power stations it's planning, we'll all be in trouble... we face threats which are unprecedented in character, scale and gravity. To have any chance of scaling back the damage they will cause we have to move immediately to a wartime footing - economically, politically, institutionally and legally."

New thinking means thinking beyond our own generation. The zoologist Colin Tudge writes of what he calls the "desperately trivial twinklings of time" and argues that we have to find a way to think not just over the next four or five years of the political cycle, but for the long term. "When we take the long view", he writes, "we can see that matters of huge consequence can take many thousands or even millions of years to unfold... how momentous, and long-lasting, it can be to do the kinds of things that we do now as a matter of course: building highways across continents, removing forests, diverting rivers."

There won't be a sustainable world without radically new thinking. It may take some surprising forms, and sometimes it may not even seem new at all. Have a look at the concluding pages of the Club of Rome's *Limits to Growth: The 30-Year Update* (it was written by Donella Meadows, Jorgen Randers and Dennis Meadows, was published in 2004, and is available in the UK from Earthscan at <http://tinyurl.com/ycpp2n>). The authors write of five tools they say are "not optional; they are essential characteristics for any society that hopes to survive over the long term". The tools are: visioning (or imagining); networking; truth-telling; learning - and loving. That's not a word you hear in too many newsrooms. New thinking looks like being full of surprises, even for journalists.











## Acronyms

ASEAN	Association of Southeast Asian Nations
ASPO	Association for the Study of Peak Oil and Gas
AU	African Union
CAT	Centre for Alternative Technology (UK)
CBD	UN Convention on Biological Diversity
CSD	UN Commission on Sustainable Development
DfID	UK Government's Department for International Development
ECI	University of Oxford Environmental Change Institute
EU	European Union
FAO	UN Food and Agriculture Organisation
FoE	Friends of the Earth
FSC	Forest Stewardship Council
GCI	Global Commons Institute
GEO	UNEP's GEO (Global Environment Outlook) report series
GRID-Arendal	UNEP's Global Resource Information Database office in Norway
IEA	International Energy Agency
IFPRI	International Food Policy Research Institute
IIED	International Institute for Environment and Development
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for the Conservation of Nature and Natural Resources (usually known as IUCN-The World Conservation Union)

USAID	US Agency for International Development
USEPA	US Environmental Protection Agency
WBCSD	World Business Council for Sustainable Development
WCI	World Coal Institute
WCU	World Conservation Union (see IUCN above)
WRI	World Resources Institute
WTO	World Trade Organisation
WWF	WWF, the global environmental conservation organisation: still sometimes known as the World Wildlife Fund
ZSL	Zoological Society of London