

PLANET • PEOPLE

THE
ecologist

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BSE – are we being fed a lie?

Mark Purdey investigates... p33

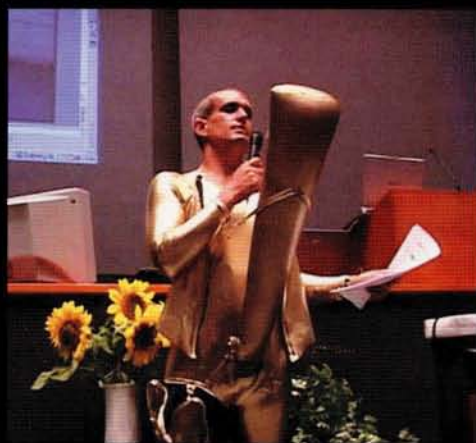
Bolivia's freedom fighter

First UK interview with Evo Morales p28

Eau de funeral home

You want it, we'll bottle it p12

THE FUTURE OF FREE TRADE?



'...the employee visualisation appendage allows managers to check the performance of their employees, and administer electric shocks to the less hard working.'

Meet the YES MEN on page 15



PLUS: STOPESSO • RESOURCE WARS • THE PRICE OF CHEAP FOOD • ON YOUR BIKE

We do have a building run on poo

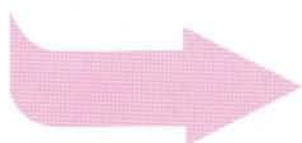
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COMING UP

In the December issue of *The Ecologist*: David Bellamy on the inadequacy of the green movement; Making the case for Hemp; Tony Benn on 60 years of nuclear power; and the world of The mysterious Horse Shoe crab
IN SHOPS 22 NOVEMBER



Investing in mops to handle a leak

I remember the morning the story first broke. It was plastered across most of Britain's papers, as well as a number of internationals. A new threat, we were told, had been detected that put all of us at risk.

Acrylamide it seemed, was the new tobacco, responsible for countless cancers around the world. And worse, there wasn't a man, woman or child that hadn't been exposed to it. What's more, the stories went, as far as the health authorities knew, there was no serious chance of avoiding it, unless that is, you were prepared to eat nothing but raw food for the rest of your lives. It was a nightmare scenario. A major killer, everywhere, and unavoidable.

Being a cynic, and having spent far too long examining the cancer establishment, I assumed immediately that the authorities, faced with mounting cancer cases, and unwilling as ever to point fingers at the plastic, chemical or nuclear industries, had merely apportioned blame on something about which nothing could be done.

The good news is that I was wrong. The bad news is that so were the World Health Organisation, the United Nations Food and Agriculture Organisation, and most of the world's newspapers.

Acrylamide is indeed nasty stuff. A potent nerve toxin in humans, it also affects male reproduction in animals, as well as triggering serious birth defects and cancer. To put it in context, the Food Standards Agency in Britain has declared that so far it's been impossible to identify a safe level of exposure, and the US Environmental Protection Agency has fixed the safe level of exposure at exactly zero.

Its cause? According to the WHO/UNFAO report, Acrylamide appears when certain basic and very common foods are subjected to intense heat. In raw grains and vegetables it is non-existent, but when subjected to heat exceeding 120 degrees, toast, chips and the like take on a deadly form, their Acrylamide levels soaring with every minute in the oven.

The clear implication was that it was a problem without a solution; that Acrylamide

was the inevitable consequence of eating patterns shared by most people. And that of course triggers a dilemma. What do you do with a cancer-causing chemical that appears in food we all eat, and which is triggered by ordinary cooking?

According to the experts, the thing to do is to devise new cooking techniques that minimise its occurrence.

But as ever, things aren't what they seem. Acrylamide is a building block for polyacrylamide, and polyacrylamide is a widely used industrial agent. Capable of absorbing up to 400 times its own weight in water, it's used in everything from nappies to the hydrogels that gardeners use to retain water in difficult soils.

But more importantly, and more relevant to the killer vegetables, Polyacrylamide is routinely added to a large number of herbicides to improve their effectiveness and reduce spray drift. In some products, polyacrylamide accounts

for a quarter of the mixture, and one herbicide that's full of the stuff is Monsanto's Round-Up, the world's most popular herbicide.

What's more it's believed that glyphosphate, the active ingredient in Monsanto's Round-up increases the solubility of polyacrylamide and facilitates its breakdown into, among other things, the deadly Acrylamide.

Still worse, polyacrylamide is sprayed widely on arable land that has been intensively farmed. Deprived of its humus, soil erodes very quickly, and the glue-like polyacrylamide is used as a soil-binding agent. It's common practice, and the USDA itself promotes it enthusiastically. The result is that polyacrylamide is sprayed in huge quantities over vast amounts of industrial farmland, and food, not surprisingly is laced in the stuff.

So what were the WHO and FAO playing at? And why, instead of tackling it at source, are the authorities looking to solve the problem in people's homes. It's a clear case of investing in mops to handle a leak.

The truth is, by avoiding the issue, the medical establishment has put corporations first, and public health a very distant last.

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World Wide Frauds

This really sticks in my craw: are you guys not aware of what a bunch of hypocrites and greenwashers WWF are? It is now thoroughly documented that WWF, born out of wealth and privilege, have contributed to corporate rape of the world's natural resources by offering a kind face to such rapacity. The forest certification scheme touted by WWF is now well known to be a fraud. Furthermore: WWF openly solicits corporate contributions; has worked to remove indigenous peoples from natural heritage regions for tourism; promotes animal experimentation on domesticated species while pretending to care about wildlife; promoted debt for nature swaps in the 1980s - another stupid cover for 500 years of Western colonialism; and openly claims alliances with, who else, the World Bank! I would at least encourage a debate in your pages on this issue. Also, there must be many more useful grassroots organisations in the world that could benefit from advertising in your pages than the old Panda con game.

Richard Wilcox, UK

We are the problem

Congratulations to Ros Coward for her article on population. I myself am an environmental activist who has tried to broach this subject at conferences etc and been promptly squashed, even though I've tried to point out that it is our populations I am concerned about as much as any other. It's worth noting that the country that consumes the most - the USA - is also the only Western country whose numbers are steadily growing. The first *Blueprint for Survival* I believe gave 30 million as a reasonable population for the UK. How many problems we would have been spared had it stayed at that.

M Schneider, Cornwall, UK

Blair necessities

Coward went far, but not far enough. Ros Coward's article 'The number of the beasts' (*Ecologist*, October 2002) argued that we do not have the 'God-given right to reproduce.' She illustrated her point with the outrageous example set by PM

Blair and his wife Cherie, who 'mistakenly' became pregnant (again) this summer, despite the evident societal need for more stringent, urgent population control.

Blair has continually berated the negligent youth of today for their lackadaisical attitude to birth control. How hypocritical that his own wife - aged fifty, with four kids already - hasn't yet mastered the art of birth control.

People in glass houses...

Catherine Francis-Blake
London, UK

System error

I have recently decided to cancel my subscription to *The Ecologist*, and I felt I ought to explain why. Considering *The Ecologist's* enthusiastic espousal of computer technology - glance at the 'www' saturation bombing - I cannot, in all conscience, continue to support it. I prefer, along with other neo-Luddites, to live and breathe in another way, a way which eschews screen-gazing, a way which views the only true web a spider's (or life's), the only true mouse a live one, the only hardware in a hardware store, the only sensible way to engage with a truly astonishing natural world through direct contact using the body and the senses. Cyberspace jeopardises all of this. So does electronic 'networking'. Sorry, but *The Ecologist* is on the wrong path and risks damaging more than it heals. I refuse to accept the high-tech absurdities of the modern world and so should you. Unplug and live!

Peter Quince Faversham, UK

Shop till we drop

The vast majority of people in the West are not happy. They have lost touch with their own humanity. Their only compensation for loneliness, insecurity, the widespread ugliness of big cities, lack of time to breathe and be, is the money in

their pockets. And that of course, never does the trick. The sad truth is that children too are now corrupted by spending, and we are confronted with the horrific spectacle of obese children in designer clothing trying to assuage their boredom (despair?) in shopping centres. So much for progress.

J Fortin, UK



Over polluted, over populated

The issue of population is ignored by media, as the corporate structure of our society relies on perpetual economic growth to sustain corporate profit. Clearly, reducing

population will impact on corporate profits in the short term; but we must ask ourselves eventually when enough is enough. Population can not continue expanding indefinitely, so we must come to some consensus soon as to what level the population of the planet can manage in a sustainable fashion. Debate tends to be obsessed with carbon management in the atmosphere, clearly the most important issues relate to toxic substances entering the ecosphere, ie pesticides, nuclear waste, chemical waste etc. Although clearly the ability of the ecosystem to absorb and manage all these substances is directly linked to population, it also needs to be emphasised that the Third World is now a major polluter in this regard also.

It is time to recognise that the issue of population needs to be addressed globally. The Chinese are acting responsibly in this area at last, now it is time that we in the West also recognises that population is an issue we all must debate and discuss now.

Clive Beere, UK

Fight the good fight

For four years I have been investigating, researching, and obtaining documented

proof that councils in conjunction with developers have been deliberately breaching human rights articles.

My files are considerable, my exposes continuous, and my letters to the Prime Minister and senior government ministers giving factual proof of the decimation of suburban areas is proven, yet still the facts are passed on, bounced back, and avoided, hoping my daily work ceases.

I have discovered direct financial interests of almost £30 million between my council and a local landowner, and despite the 30,000 signed objectors to the destruction of our 'last green lung' area, the fight goes on.

I shall not bore you with too much detail, except to say that as a father, and grandfather who will be 67 years old next year, I have never put my head above the trenches before, and have been content to be a model citizen and family man. But events during these past four years have proved to me the need to disregard the threats and intimidation that I have suffered, and to persist in my fight for the sake of my children and future generations.

I long for the time when all people awoken to the present destruction of our environment. And keep foremost in my mind a saying by Gandhi: First they ignore you; then they laugh at you; then they fight you; then you win.

John Hall, Manchester, U.K.

Beans to die for

For several months now, charities have been collecting for the Southern African food crises. I've heard Zambia is particularly affected. So why is it that for the past year, I have been able to buy organic Zambian green beans from UK supermarkets?

Is this because they have to sell any food they produce to us so that we can have cheap food and they can pay off their debt? Or do they spend it on petroleum products for industry? Is it a coincidence that they are now having GM maize forced upon them, often purchased by the very charities who we support? Is anyone able to enlighten me on these matters?

Louise Clifford, Oxford, UK

Up Front

November

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Premier oil pulls out of Burma

BURMA Premier Oil will no longer work in Burma, following the withdrawal of its two largest shareholders. Between them, Amerada Hess and Petronas had a 50 per cent holding in Premier, but following pressure from activists over allegations that Amerada had broken UK law by investing in Premier the company withdrew and Petronas swiftly followed suit.

'The demise and fall of Premier is a warning to any

company thinking about investing in Burma,' said John Jackson, director of the Burma Campaign UK. 'We won't stop here, we've won a battle but not the war. The pressure needs to be turned up on TotalFinaElf and Unocal. They are as guilty as Premier of propping up one of the most brutal regimes in the world.'

For more, go to www.burma-campaign.org.uk or call 00 44 (0)207 281 7377.

Syngenta exits UK research alliance

UK Syngenta, the world's biggest GM corporation, is ending its much vaunted research alliance with the John Innes Centre for plant and microbial science.

When the \$50m deal was originally announced, Professor Ray Baker, chief executive of the JIC's public funding body, claimed it to be 'precisely the sort of arrangement that has proved mutually beneficial to academic and commercial partners in the US and elsewhere'.

In truth, the Norwich-based JIC had been encouraged to put all of its eggs in the biotech

basket, creating an institutional over-commitment to corporate biotech interests.

As Miguel A Altieri of the Department of Environmental Science, Policy and Management at the University of California has said: 'Research at public institutions increasingly reflects the interests of private funders at the expense of good research.'

'Civil society must demand a response of whom the university and other public organisations are to serve, and request more research on alternatives to biotechnology.'

Great apes at risk of extinction

WORLD If logging, road building and other development plans continue on their current scale, less than one per cent of the orangutan's habitat in south-east Asia will remain undisturbed by 2030.

For all the other great apes the picture is equally grim. Gorillas will be left with 10 per cent of their habitat, chimpanzees with just over two per cent and bonobos with four per cent.

The full report is available at www.globio.info

'Meaningless and politically charged'

US Earlier this year a forestry industry lobbying group made a novel bid to scupper a petition calling for an end to the cutting down of trees over 150 years old.

The California Forestry Association went to court and asked a state superior court judge to dismiss the petition on the grounds that words such as 'old growth', 'heritage tree' and 'protects' were 'meaningless' and 'politically charged'.

Fortunately, the judge deemed the words to be 'not inaccurate' and the then high-profile petition was flooded with signatures.

For more information on the campaign, contact the Citizens' Campaign for Old-Growth Preservation on 001 (213) 484 4474, or go to www.ancienttrees.org

CORPORATE



CRIME WAVE

Bush and Cheney stepping out in the run up to the November mid-term elections

Learning the Lonestar way

US What does it take to be a Texan text book? That's the question being asked this month, when 151 social science text books are reviewed for suitability for students in the Lonestar State.

Prepare for some illuminating decisions. At last year's meeting, the state board of education voted to reject the book *Environmental Science, Creating a Sustainable Future*. The passage that really got it going was one which alleged that 'too many people reproducing too quickly' was jeopardising the planet's health.

It wasn't the only book to arouse the censor's ire. In all, 12 books were rejected and several others modified. In one a reference to CO₂ as a 'pollutant' was removed. In another a passage on the lifestyles of native Americans and European settlers was altered to remove its 'anti-settler' tone. And a few years back there were even objections to books that depicted women as professionals rather than housewives.

If nothing else, it helps explain a few of the gaps in George W Bush's education.

As clean as...?

INDIA At the recent Earth Summit in Johannesburg a public-private partnership was launched by the World Bank with the stated aim of 'saving lives' in the Indian state of Kerala. The 'Washing Hands' project aims to cut diarrhoeal diseases in half, double hand washing and increase sales of soap.

However, Kerala already has the highest hygiene standards in India, the lowest diarrhoeal death rate, the highest awareness on how to prevent diarrhoeal diseases, the lowest childhood mortality, and the highest female literacy. Add to that the best access to safe water in the country and a wealth of local health practices that combat the problems successfully already, and you begin to wonder why the state has been targeted at all. Could the choice of major soap producers Unilever, Procter and Gamble and Colgate Palmolive as 'partners' have anything to do with it?

For further information, contact the Water Liberation Movement at www.vshiva.net or telephone 91 11 696 8077

NEWS IN BRIEF

Sticking their necks out

More than 150 members of the campaign against India's Narmada Dam project showed their resistance by remaining in their homes despite being surrounded by neck-high waters caused by the partly built Sardar Sarovar Dam (see *Ecologist* October 2002).

Fume costs

According to the World Health Organisation, three million people die from the effects of air pollution each year. That's three times as many as those who die in traffic accidents.

Social irresponsibility

All but one of Australia's Socially Responsible Investment funds invest in fossil fuels, while only nine invest in renewable energy, the country's Mineral Policy Institute has revealed.

When is too many too much?

Human activities are causing between 10,000 and 40,000 species to become extinct each year, says renowned conservationist Richard Leakey. At that rate of extinction we may well be approaching a point similar to the mass extinctions that wiped out the dinosaurs.

Hemp for houses

The New Zealand Green Party has used hemp to partly insulate two homes bought by its members so as to publicise its campaign to legalise growing the fibre in the country.

Crime doesn't pay

The spate of corporate scandals that have hit the US in recent months will cost the country's economy £35 billion, according to US public policy analyst the Brookings Institute. The figure is equivalent to a \$10-a-barrel rise in the price of oil.

World Bank finances oil exploration

The International Finance Corporation, the private sector financing arm of the World Bank, will provide \$35 million to oil producer Omimex de Colombia Ltd to develop various onshore oil fields and upgrade an existing pipeline in Colombia.

Fish out of proportion

US How do you solve the problem of the world's depleting fisheries? Make the salmon grow quicker. At least that's the plan of Aqua Bounty Farms, a biotechnology company which has genetically engineered a salmon to continuously produce a growth hormone and grow up to six times faster than normal. At some stages of its development, the fish may be 10 to 30 times larger than a non-engineered salmon of the same age.

The company has asked the US Food and Drug Administration for permission to raise the fish commercially, even though the implications of such fish interbreeding with wild populations, or the possible risks to human health from eating them, are unknown.

The US Campaign for Food Safety is taking legal action to stop the proposal.

To learn more or sign the campaign pledge, go to www.gefish.org



IMF admits it has failed

JAPAN The managing director of the International Monetary Fund has admitted his organisation is not the solution to the Third World's problems. 'To resolve home-grown problems, no external advice, however sound, and no amount of external financing can substitute for self responsibility and political cohesion in a society,' said Horst Kohler at a meeting in Japan.

Note that when the IMF says 'advice' it means 'conditions' such as currency devaluations, selling off of national industries to foreign multinationals and reducing government expenditure on 'luxury items' such as healthcare and education.

For more on the IMF, go to www.50years.org, and read the article on page 39.

Patently unfair

UK Intellectual property rights impose unfair costs on developing countries and do not help reduce poverty, an independent report has found. 'Developed countries often proceed on the assumption that what is good for them is likely to be good for developing countries,' said professor John Barton, chair of the UK's Commission on Intellectual Property Rights – the body that produced the report, *Integrating Intellectual Property Rights and Development Policy*.

Further information is available at www.iprcommission.org

Stating the obvious... but doing nothing about it

AFRICA Toxic waste from 120,000 tonnes of unused pesticides in Africa is threatening the environment and people's health, the UN's Food and Agriculture Agency (FAO) has announced. The FAO also admitted that less than five per cent of the stockpile has so far been removed.

Along with the African Development Bank, several other UN agencies and various non-governmental organisations, the FAO has launched a programme to free the continent of unusable pesticides and contaminated waste in the next 10-15 years. Whether this plan also includes stopping any more pesticides from being dumped is another matter, but seeing as how southern Africa is simultaneously being pushed to accept thousands of tonnes of GM crops (which require increased use of pesticides), it is doubtful.

For more on pesticides, go to www.pan-org.uk/

Gender bender bears

ARCTIC PCBs and other man-made toxins are causing polar bears to develop both male and female sex organs. The study by the Arctic Monitoring and Assessment Programme said arctic foxes, seals and killer whales had also been affected by food contaminated with pollutants that issued from as far away as Asia.

Best thing since sliced bread?

AUSTRALIA A test on the effects of calcium propionate (a preservative used in almost all Australian bread) has found disturbing results. A total of 27 children were put on an elimination diet under which they avoided 50 additives. Notably, irritability, restlessness, inattention and sleep disturbance all dropped from 95 to 31 per cent.

When the children then ate bread containing calcium propionate (or preservative 282 as it is otherwise known) half of them suffered adverse reactions. Calcium propionate is added to bread for manufacturers' convenience, as it allows them to put sliced hot loaves into plastic bags without mould growing. Use of the preservative has recently been extended into other foods, including cheese, dried fruit, fruit juice and emulsifiers.

For more information about additives, go to www.fedupwithfoodadditives.info

How quickly they forget

SOUTH AFRICA Less than two months after it hosted the largest environment conference ever, South Africa has cut its 10-year renewable energy target to less than would be achieved without any policy or investment incentives.

If attained, the new figure would result in only 0.15 per cent of South Africa's energy needs being met by renewable sources.

'It is no secret in the South African Department of Minerals and Energy that the emasculation of our national target is the work of World Bank advisers,' says Richard Worthington, branch coordinator of Earthlife Africa.

'We'll kill them kindly'

JAPAN Fishermen in the town of Ito have promised to adopt what they term a more humane method for killing dolphins. Under the new 'humane' method, the highly intelligent marine mammal's spinal cord will be severed with a knife at the dockside, shortening the death time from 10 minutes to 30 seconds.

Read the article again – that's about how long it will take the dolphins to die.

NEWS IN BRIEF

Rainforest Sting

Three US citizens have been arrested in Brazil on suspicion of selling public land through a spoof website using the name of the Rainforest Foundation – the environmental organisation founded by the musician Sting. Police were tipped off by a businessman who said he had donated \$1m.

London's burning

Londoners consume more than three times their fair share of the Earth's resources, according to a new report by City Limits. The report is the first time a major city has measured its ecological footprint.

Good on yer

Despite Australia's refusal to sign the Kyoto Protocol, New South Wales premier Bob Carr has said that his state will enforce the targets independently.

No streams left unpolluted

Not a single US stream may be free of chemical contamination, according to a private report commissioned five years ago by Bill Clinton and released last month by the H John Heinz III Center for Science, Economics and the Environment.

Furthermore, the report estimates that about one fifth of US animal species and one sixth of plant types are at risk of extinction.

Curse of the modern mariners

More than 300,000 albatrosses are killed annually by long-line fishing. The birds get caught grabbing bait and drown on the lines.

Body Shop disowns anti-US Anita Roddick

Reacting to a column company founder Anita Roddick wrote for the *Independent* newspaper, the Body Shop has publicly disavowed Roddick's views and declared it stands 'full-square behind the American people, President Bush and the US government in their struggle against terrorism'.

Oregon to vote on GM

In the first referendum of its kind, the people of Oregon will vote in November on whether food containing GM should be labelled. About 70 per cent of processed foods in the US contain GM ingredients such as soya beans or corn.

Refugees from development

SUMATRA Nearly 3,900 residents of the island of Sumatra have filed a lawsuit for damages caused by a Japanese-funded hydroelectric dam. In the case, which is the first time a Japanese development project has been legally challenged, the plaintiffs claim that they have become 'development refugees' since their forcible resettlement to make way for the Kotopanjang Dam. The dam was completed in 1997.

For more on the global crisis of development refugees, see 'Environmental Refugees' in the June 2002 *Ecologist*. Read the article online at www.theecologist.org/



Jo'burg Summit a success... apparently

EU Last month *The Ecologist* received an article on the Johannesburg Summit for potential publication from none other than Margot Wallström, the European Union's environment commissioner. The article has not been published, though this had nothing to do with its grammar or spelling – both of which were impeccable.

What we objected to were some of the claims that the article made. The EU's most senior environmental politician wrote: 'In Johannesburg the multilateral system has proved again that it is alive and well, and capable of producing solutions to global problems.'

She also reminded us that: 'The EU drove the negotiations forward with an ambitious agenda for eradicating poverty and protecting the environment, and we have achieved much of what we wanted.' But then it didn't want much in the first place.

We approached Ms Wallström's office with the view of interviewing her. We haven't heard back from them yet.

'Law suits oil' – update

US Last month we reported that Exxon and Unocal had managed to have human rights charges against them dropped ('Law suits oil' *Ecologist*, October 2002, page 8). But on September 18 the US Ninth Circuit Court of Appeals made a landmark decision against Unocal, allowing plaintiffs to proceed to trial in federal court on claims that they were forced to labour on Unocal's pipeline project in Burma.

Reaffirming that Unocal knew that forced labour was being used on the project and that it benefitted from the practice, the court ruled that the corporation could be held directly liable for aiding and abetting the Burmese military in perpetrating forced labour. Adopting standards developed for international criminal tribunals such as those for Rwanda and Yugoslavia, the court explained that liability can attach for 'knowing practical assistance or encouragement that has a practical effect on the perpetration of crimes'. Moreover, the court found that it wasn't necessary for Unocal to have specifically intended to inflict the harm suffered for it to be held liable. It was only necessary for the company to be 'aware that one of a number of crimes will probably be committed, and that one of those crimes is in fact committed'.

Finding that plaintiffs had submitted substantial evidence that forced labour was used on the pipeline and that Unocal assisted the Burmese military in subjecting the plaintiffs to forced labour, the court sent the case back to the district court for trial.

For more on this case, contact the International Labor Rights Fund (www.laborrights.org) on 001 (202) 347 4100

'I wish' the BBC would drop Shell

UK *Earth Report* is an environmental series that runs on BBC World, the international satellite channel of the BBC beamed to over 95 million households worldwide. In the lead up to the Earth Summit, the programme was sponsored by Shell. Readers will be glad to know that Shell considers its sponsorship to have been a worthwhile enterprise.

A Shell communiqué said: 'Shell's Corporate Identity Programme seeks to forge exclusive media partnerships that

go beyond simple spot buys. This is due to the fact that our messages need to be not only engaging and informative, but also have to be positioned in a credible and authoritative environment. Our partnership with BBC World surrounding the *Earth Report* and the *I wish* series provided attractive platforms in which to engage with our niche special public audiences as the interest around sustainable development increases.'

You don't get more credible than the BBC, do you?

The bitter taste of coffee

- The global coffee market is over-supplied by 540 million kilogrammes of coffee each year.
- New technologies like steam cleaning are helping roasting companies get away with using poorer quality coffee beans than ever before.
- 10 years ago, poor countries' export sales were worth a third of the total coffee market. Today it is just 10 per cent.
- Coffee farmers earn, on average, 24 cents a pound for their coffee. Consumers in rich countries pay roughly \$3.60 a pound. That's a mark-up of 1,500 per cent. Coffee now costs more to grow and pick than it does to sell.
- 25 million families in four continents who are dependent on coffee are going hungry and cannot afford school fees or medicines.
- Nearly half the world coffee crop is bought by four companies – Nestlé, Sara Lee, Proctor & Gamble and Kraft.
- Nestlé's profit margin on instant coffee was estimated at 26 per cent in 1999. Sara Lee's is estimated at 19 per cent.
- The value of producer countries' coffee exports has fallen by \$4 billion in five years.

To read more, go to www.oxfam.org.uk



USAID sacks whistle-blower

US The US's sole state analyst overseeing environmental compliance in multinational development projects with US participation has been fired for raising doubts about pending projects, according to Public Employees for Environmental Responsibility (PEER). On September 30 the position of environmental analyst within the US Agency for International Development (USAID) was abolished. With it went John M Fitzgerald, who held the post.

According to PEER, USAID closed the position after pressure from the US Treasury, which is determined to secure financing for certain energy projects in Africa, South America and Eastern Europe. In a complaint filed on Fitzgerald's behalf with the US Office for Special Counsel, PEER documents how the Treasury has struck sections from draft USAID reports concerning: liability and reliability questions surrounding the proposed K2R4 nuclear power plant in the Ukraine; corruption and inadequate planning in connection with the now-stalled Bujagali Falls Dam in Uganda; and environmental failings overlooked by sponsors in the proposed Chad-Cameroon oil pipeline.

A complaint summary and an example of treasury editing of draft Chad-Cameroon findings are posted at www.peer.or/press/274.html



A subvert objecting to the spread of GM foods

Wildflower mix up

UK Farmers have been planting wildflower borders along their fields' edges to promote biodiversity. The initiative is part of the Department of the Environment Food and Rural Affairs' Country Stewardship Scheme.

One problem – the 'wildflower mixtures' sold to farmers do not necessarily contain native species. As a result, large volumes of alien flowers are now threatening our much-depleted native wildflower stocks.



Demonstrators protest IMF policies in Washington last month

Sustainaballs... pin the tale on the ass

Who's latest advert reads...

A 'By the time you've read this, we'll have prevented another five tonnes of carbon dioxide from hitting the atmosphere?'

B 'Peace now reigns at Tate Britain, thanks to...?'

C 'Citizenship in a changing world?'

Answers: **A** British Nuclear Fuels **B** British Petroleum **C** Exxon Mobil

Who, last month also...

A Accepted return of two boatloads of its own plutonium, returned because it had falsified safety records?

B Demanded the right to unlimited protection by Turkish security forces, without any safeguards against human rights abuses?

C Sought the dismissal of a lawsuit alleging human rights abuses against it on the grounds that the suit might harm the US's war on terrorism?

GM NEWS IN BRIEF

The latest developments in GM – today's most pressing environmental issue

Last month the Soil Association produced a damning report, *Seeds of Doubt*, about the state of GM agriculture in the US. Here are some of its findings.

1 The data from six years of commercial growing show that the two GM crops Roundup and Asgrow deliver less income on average to farmers than non-GM crops.

2 US government statistics confirm that GM crops have led to increased amounts of herbicide being applied to the land. In 2000, Roundup Ready (RR) maize was treated with about 30 per cent more herbicide on average than non-GM maize.

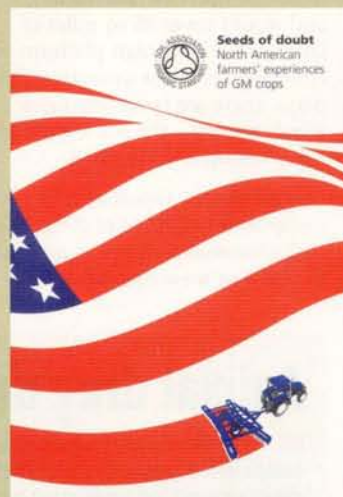
3 The herbicide glyphosate disrupts the nitrogen fixation process in RR soya. The effect of the delay and decrease in nitrogen fixation means yields can be down by as much as 25 per cent.

4 There is now evidence of weed species developing resistance to glyphosate. These weeds are requiring much heavier applications of herbicides.

5 GM varieties increase farmer seed costs by 25 to 40 per cent an acre. So yields have to be higher and/or other costs lower for farmers to break even.

6 The US organic certifier Farm Verified Organic has stated that GM

contamination of maize, oilseed rape and soya is now so pervasive that it believes it is no longer possible for farmers in North America to source GM-free seed.



'In 1900 there were around 2,000 seed companies in North America. Now there are less than 200... The hand that holds the seed controls the food supply.' Sharon Rempel, organic crop researcher.

Bayer responsible for food deaths

PERU A congressional subcommittee has found significant evidence of criminal responsibility by agrochemical multinational Bayer in the poisoning of 42 children in a remote Andean village in 1999.

The children, from the village of Taucamarca, became ill after eating a school breakfast contaminated with organophosphates from a Bayer pesticide, Folidol; 24 died and 18 suffered long-term health and development problems.

Bayer heavily marketed Folidol to small farmers across Peru, yet the majority of the farmers only speak the indigenous Quechua language and are illiterate. The pesticide, a white powder resembling powdered milk, was sold in small plastic bags with labels only in Spanish and bearing a picture of vegetables. It later ended up in the children's food.

7 In Canada, contamination of the oilseed rape crop has reached such a level that most organic farmers in Saskatchewan, the province with the most organic farming, have given up growing rape.

8 Unpredicted effects include cattle refusing to graze Bt-maize stubble, pigs going off feed with GM grains in it and cattle stopping eating when farmers switch to GM silage.

9 With the introduction of GM crops, farmers have suffered a severe loss of choice about how they farm. Many are forced to avoid certain crops or even to grow GM crops simply because of this absence, not because of the particular attributes of the GM crops.

10 Farmers are also reporting that the availability of good non-GM seed varieties is rapidly disappearing. Good varieties are increasingly only available in a GM form. The problem is that the leading Midwestern seed firms have been bought up by the biotechnology companies, which now only sell the most popular genetically-engineered hybrids. DuPont and Monsanto are now the two largest seed companies in the world with combined sales in excess of \$3.5 billion in 2000.

SOUNDBITES

“ I use to say that since we are going to need these institutions it's better to reform them than to start from scratch. I'm beginning to have second thoughts. ”

Joseph Stiglitz, former chief economist at the World Bank and 2001 recipient of the Nobel prize for economics

“ The current system is lopsided. It is designed to preserve the international financial markets, not the stability of periphery countries. ”

George Soros, international currency trader

“ No matter how big and powerful the corporate media, journalists and broadcasters have a duty to resist on behalf of the public we are meant to serve. ”

John Pilger, *Guardian*, Sept 23, 2002

“ If I lose at the Supreme Court, then I've lost the battle for farmers all over the world, and for their right to use their own seed. It would mean the total control of the seed supply by multinationals like Monsanto, which has found a way to do it – and that's through patent law. ”

Percy Schmeisser, farmer-activist

“ The land has a sacred meaning to the Native people of America. Do we really understand what holy and sacred mean to the land? What motivates us to change the landscape to fit our agenda about growth and traffic? ”

Sister Agnes Calmarron, protesting a road built without consent across land sacred to Native Americans.

“ I feel deep shame when I look into the eyes of my grandchildren and think how much damage has been done to planet Earth since I was their age. Each of us must work as hard as we can now to heal the hurts and save what is left. ”

Jane Goodall, conservationist

Who needs qualifications?



US The new wildlands fuel co-ordinator for the US Department of the Interior does not believe in ecosystems and has no experience of forest ecology or fire management. 'Ideal' candidate Alan Fitzsimmons was appointed by secretary of the interior Gale Norton, who said Fitzsimmons' choice 'supports our commitment to fully implement the president's 'Healthy Forests' initiative'.

The initiative's innovative plan is to do away with the problem of forest fires by removing vast tracts of forest altogether.

Norton was in the news elsewhere recently, when federal judge Royce

Lamberth called her an 'unfit' government representative guilty of a 'deceitful and disingenuous failure'. Lamberth went on to say that 'the secretary of the interior has been and continues to be an unfit trustee-delegate for the US'. The judge was referring to Norton's failure to follow an order to fix a system that has deprived Native Americans of billions of dollars of royalties from oil, gas, coal and timber projects on their lands.

Send your views to Norton at the Department of the Interior, 1849 C Street, NW Washington, DC 20240. Email her at: Gale_Norton@ios.doi.gov or call 001 (202) 208 7351

Campaign against huge Cliffe airport

UK The consultation period for the building of what would be the UK's largest ever airport ends this month. Nearly twice the size of Heathrow if built, Cliffe Airport in Kent would destroy at least 1,800 homes, as well as vast areas of ecologically sensitive land – including EU-designated conservation sites. It would have five runways (Heathrow has two), would be open 24 hours a day, and would cover 26 sq miles of land with a 50-ft-high platform of concrete. For those unaware of the plans, there are two campaigns worth joining – the No Airport at Cliffe Group and the RSPB.

Contact the No Airport at Cliffe Group on 00 44 (0)1634 271283 or visit www.noairportcliffe.co.uk. Visit the RSPB at www.rspb.org.uk

An apple a day



Why waste time chewing into those annoying round-shaped apples? With Sainsbury's 'fully prepared apple bites' (a sliced apple in a bag, for 49p) you don't have to. As it says on the back, 'if you are not entirely satisfied with this product, please let Sainsbury know on freephone 0800 636262'.

Paediatricians attack logo

US 'Leading members of the US Academy of Paediatrics are expressing outrage that the group is allowing the maker of Similac infant formula to print its corporate logo on the cover of a special edition of the academy's book on breast-feeding.' So reported *The New York Times* on September 18. The *Times* continued: 'The academy, whose members include 57,000 paediatricians and other paediatric specialists, has long recommended that most mothers breast-feed because of the myriad benefits over formula.' Dr Lawrence M Gartner, who chairs the academy's executive committee on breast-feeding, said that Similac's logo on the book 'corrupts efforts to promote breast-feeding'.

Sick deal exposed

MALTA The RSPB believes a 'behind-the-scenes' deal between the European Commission and the Maltese government could allow the island's bird hunters and trappers to continue plundering nine species of bird, which migrate northwards through the island in spring en route to breeding sites elsewhere in Europe. The birds most at risk are quail and turtle dove and seven species of finch – especially goldfinch, chaffinch, greenfinch and linnet.



To protest this imminent 'deal', write to: Rt Hon Peter Hain MP, Minister for Europe, Foreign and Commonwealth Office, King Charles Street, London SW1A 2AH. More information from the RSPB at www.rspb.org.uk or on 00 44 (0)1767 680551.

Animal drug dangers acknowledged

US – The Food and Drug Administration is restricting the use of antibiotics in livestock. The move comes amid growing concern that the overuse of animal drugs to control health on industrial farms is creating antibiotic-resistant bacteria in meat. For the first time the FDA will now require the manufacturers of proposed drugs to determine whether the drugs' use could spur the emergence of such bacteria.

The Animal Health Institute, which is in fact a trade group representing the business interests of drug manufacturers, complained that the FDA's new policy 'will make it very difficult for new antibiotic products to be approved, thus creating new animal health and food safety risks while not adding to public health'.

The annual market for animal drugs and vaccines is worth \$4 billion and is dominated by Bayer and Pfizer – both members (along with Monsanto and Novartis) of the Animal Health Institute.

For more on industrial farming and associated health risks, turn to page 22. The Animal Health Institute's website is at www.ahi.org

Behind the lines: Esso's claim to care about the environment

This month *The Ecologist* analyses Esso's *Climate Change, our view* leaflet, available free to motorists in garage forecourts all over the UK.

1 Last year, the world's leading climate experts, the Intergovernmental Panel on Climate Change, announced: 'The Earth's climate system has demonstrably changed on both global and regional scales since the pre-industrial era, with some of these changes attributable to human activities.'¹ Esso lobbied (unsuccessfully) to amend the text by deleting 'with some of these changes attributable to human activities'.

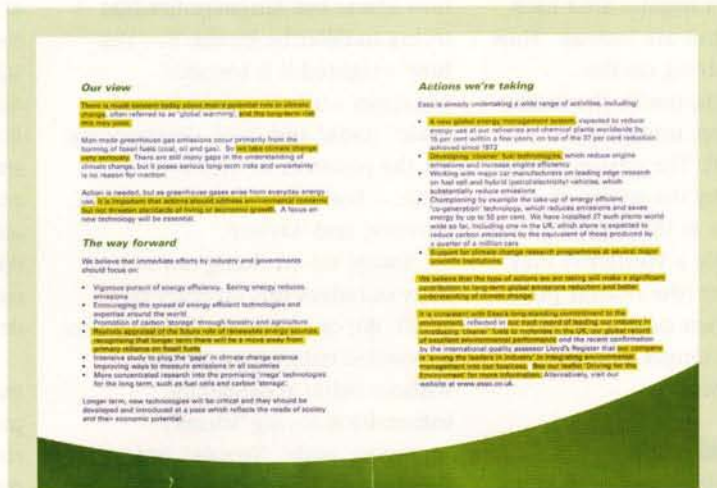
Compare this with the statement this year made by Esso's CEO Lee Raymond: 'ExxonMobil [Esso's US name] do not believe that the science required to establish this linkage between fossil fuels and warming has been demonstrated - and many scientists agree.'²

2 Esso has spent the last 10 years actively trying to undermine action on climate change by its involvement in the Global Climate Coalition (staying in when all others like Shell, BP, Ford, and GM had left), the American Petroleum Institute, the International Chamber of Commerce, etc.³

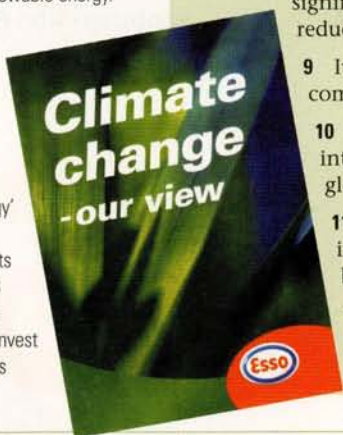
3 Esso's been saying this for years, and now Bush is saying it too.⁴ However, the Natural Resources Defence Council found that China reduced its CO₂ emissions by 6 per cent to 14 per cent between 1996-99 while its economy grew from 22 to 26 per cent.⁵

4 Esso, the world's biggest company, refuses to invest in renewable energy. Were it to shift significant investment from fossil fuels to renewable energy it would greatly cut the costs. But for Esso there is only oil, coal and gas. It dismisses 'non-petroleum sources of energy' as merely 'fashionable'.⁶

So 'unfashionable' is its view that in May 2002 20.3 per cent of its shareholders called for this company to invest in renewable energy. That's \$55bn worth of shares.⁷



- 1** There is much concern today about man's potential role in climate change and the long-term risks this may pose.
- 2** We take climate change very seriously.
- 3** It is important that actions should address environmental concerns but not threaten standards of living or economic growth.
- 4** Realistic appraisal of the future role of renewable energy sources, recognising that longer term there will be a move away from primary reliance on fossil fuels.
- 5** A new global energy management system ...
- 6** Developing 'cleaner' fuel technologies
- 7** Support for climate change research programmes at several major scientific institutions.
- 8** We believe that the type of actions we are taking will make a significant contribution to long-term global emissions reduction and better understanding of climate change
- 9** It is consistent with Esso's long-standing commitment to the environment
- 10** Our track record of leading our industry in introducing "cleaner" fuels to motorists in the UK, our global record of excellent environmental performance
- 11** Our company is 'among the leaders in industry' in integrating environmental management into our business.
- 12** See our leaflet *Driving for the Environment* for more information.



5 The 37 per cent improvement in energy intensity achieved by Esso over 25 years does not appear to be anything out of the ordinary. In the UK, the chemical industry recorded a 61 per cent improvement in energy intensity in the 18 years to 1998, while the energy intensity of UK industry as a whole improved by 62 per cent from 1970 to 1998.⁸

6 Esso's 'cleaner fuel' technologies are the fuel cells which would still rely on petrol to extract hydrogen. Of all types of fuel cells, the petrol-driven fuel cells reduce CO₂ the least.⁹

7 Esso also funds front groups which push the climate sceptic line, such as the Competitive Enterprise Institute.¹⁰ It has funded ad campaigns across the USA for years to convince the public that global warming's not a problem. Esso's Op Ads appear every Thursday in the *New York Times*.¹¹

8 We already understand it well enough to know we have to act now.¹²

9 Entirely! Deny, Dupe, Delay. Deny the science, dupe the public, delay action.¹³

10 All very well, but irrelevant in the context of a climate change booklet. Cleaner fuels take particulates out of the air, but doesn't reduce CO₂.

11 What industry do they mean? Read the report on the company's Texas Baytown Refinery for an insight into Esso's environmental management'¹⁴

12 The opening words of this leaflet make its lack of grounding in reality quite apparent. 'At Esso we have a long standing commitment to the environment. It's clearly evident in the products we sell on our many forecourts across the UK.' If any reader can find evidence of such products, do let us know.¹⁵

with thanks to Cindy Baxter at the Stop Esso campaign. www.stopesso.com

SOURCES & FURTHER READING

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| <p>1 www.ipcc.ch</p> <p>2 www2.exxonmobil.com/Corporate/Newsroom/SpchsIntvws/Corp_NR_SpchIntvrv_KL.Speech_100602.asp</p> <p>3 www.greenpeaceusa.org/climate/pdfs/exxon_denial.pdf</p> <p>www.corporatewatch.org.uk/profiles/oil_gas/exxon_mobil/exxon_mobil1.html</p> | <p>4 www.whitehouse.gov/news/releases/2002/02/20020214-5.html</p> <p>5 www.nrdc.org/globalwarming/achinagg.asp</p> <p>6 www2.exxonmobil.com/Files/Corporate/100501.pdf</p> <p>7 www.campaignexxonmobil.org/news/PR.052902.shtml</p> <p>8 www.ends.co.uk</p> <p>9 www.pembina.org/publications_item.asp?id=10</p> <p>10 www2.exxonmobil.com/Files/corporate/public_policy1.pdf</p> | <p>11 www2.exxonmobil.com/Files/Corporate/000316.pdf</p> <p>www2.exxonmobil.com/Files/Corporate/000323.pdf</p> <p>12 www.ipcc.ch/press/sp-cop6.htm</p> <p>13 www2.exxonmobil.com/Corporate/Newsroom/OpEds/Corporate_NR_OE_ClimateChange.asp</p> <p>14 www.heatisonline.org/</p> <p>www.seedcoalition.org/earn.exxonmobil.htm</p> <p>15 www.esso.com/eaff/essouk/news_service/mn_living.html</p> |
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We are obsessed with our odour. We slavishly scrub off all that makes us distinct as members of a species, and then spray ourselves liberally with a homogenous fug of the latest mass-marketed musk. Jeremy Smith wonders why.

Rolls-Royce coachbuilders developed a chemical solution that would replicate the nasal illusion of driving the world's most luxurious car

When two members of the Ongee meet, they don't inquire after each others' health, but ask instead: 'How is your nose?' Living on the Andaman Islands, out in the Indian Ocean, the Ongee universe is defined by smell. The passing of the year is marked by the scents of differing flowers as they come into bloom, and while a Westerner may touch their chest (the nearest point to the heart) when talking about themselves, the Ongee touch the tips of their noses.

Our desensitised world

In our industrialised world, smell is generally seen as the basest of the senses. Ever since the scientific revolutions of the 18th century, smell has been dismissed as over-emotional and a threat to the ideal of detached, rational thinking.

And while we take pride in our rich English vocabulary, when it comes to describing smells the most often used word is 'smelly'. A glance

at *Roget's Thesaurus* reveals not only how sparse our language is when trying to describe smells, but also how weighted it is towards negatives – 'stink', 'reek', 'pong', 'stale', 'rank' and 'foul'. Intriguingly, for the positives we rely on the gallic – 'bouquet', 'perfume', 'scent', 'essence' and 'savour'.

Today, we are doing our best to deny ourselves this diversity of smell. We can now be crammed into a crowded train on a hot day without being assaulted by information saying 'friend', 'stranger', 'male', 'female', 'safe', 'aggressive', 'healthy', 'sick'. We have scrubbed and embalmed ourselves to be without identity, and then perfumed ourselves to carry a false one. He is Armani, she is Dior. We are all, if the advertising from Calvin Klein is to be believed, One.

Our surroundings are also being scented to manipulate how we perceive them. Supermarkets 'bake' (read, 'reheat') bread on site. The

British Airways business class lounge at Heathrow Airport is infused with the smell of freshly cut grass and the salty odour of the sea. And following complaints that the later model Rolls-Royces didn't have the same smell as their forerunners, the car's coachbuilders developed a chemical solution that would replicate the nasal illusion of driving the world's most luxurious car. The result – 'Eau de Rolls-Royce 1965 Silver Cloud'.

Though retailers and manufacturers will say they are just providing a more pleasant environment for their customers, research by neurologist Alan Hirsch of the Smell and Taste Treatment and Research Foundation suggests something more slick is going on.

In one experiment two identical pairs of Nike shoes were placed in rooms that were also identical. The only difference was that one room was infused with a mixed floral scent. All test subjects inspected the shoes in each room, and then completed a questionnaire about their observations. The consumers preferred, by a margin of 84 per cent, the shoes in the room with the fragrance. Additionally, those consumers who estimated the value

Sweet Smell of Excess



Smell the money

- According to its founder, the goal of Demeter Fragrances is 'to have every pleasurable scent in a bottle'. Why not try 'Birthday Cake', 'Crème Brûlée', 'Laundromat' and/or 'Wet Garden'? The über niche interests are catered for, as well. For a measly \$14.95 you can buy your own bottle of 'Funeral Home'.

Sense of cultures

- The Dogon people of Mali (right) believe the scent of onion is by far the most attractive fragrance a young man or woman can wear.
- For the cattle-herding Dassanetch of Ethiopia, the finest smell is that of a cow.
- For the desert-living African bushmen, the finest smell is that of rain.



CORBIS

of the shoes priced the 'scented' shoes an average of \$10.33 higher than those in the unscented room.

In another experiment conducted in a Las Vegas casino, Hirsch infused one area containing slot machines with a pleasant odour. The amount of money pumped into the machines over the course of several weekends was compared with what happened at times without the fragrance. The total revenues during the scented weekends were 45.11 per cent higher than during the weekends without scent.

Firms have been quick to exploit the money-spinning possibilities of smell. 'Like atoms in physics or molecules in chemistry, the senses represent the most basic units in the science and art of branding,' reads a typically overblown line from a pitch by one advertising agency. 'When the air quality is pleasant, so is the shopping experience,' says Diotima von Kempfski – whose company, DVK, designs scents and ventilation systems for international retail clients. 'If people feel good, they buy more.'

Losing not one sense, but two

Besides persuading us to part with

our money more freely, what effect is manipulating our sense of smell having? Apart from the known toxicity of the many perfumes and fragrances that we liberally douse over ourselves and our surroundings, could there be another less obvious but potentially more significant result?

Scent works at two levels. The olfactory route, directly connected to the brain, is the medium for conscious information. It tells us that the piece of fish is off and allows us to smell the smoke before the flames are licking at our feet.

But there is also an unconscious level of information via another less identified route. We receive our subliminal messages via Jacobson's Organ – a pair of tiny pits located high inside our nostrils. Jacobson's Organ has long been associated with such intangibles as sixth sense, instinct and ESP. Discovered by 18th century Danish anatomist Ludwig Jacobson, it responds to odourless substances such as pheromones that convey information about gender, reproduction and dominance to the reptilian brain – our instinctive 'cognitive fossil'.

For most of human history people lived in familiar places with

familiar people, and chose their friends, foes and partners from a base of solidly founded information. An abundance of natural smells added to this, contributing to our 'instinctive' response – like that of animals – to a person or their mood.

The globalised human race, however, is a highly mobile one. The majority of us spend most of our lives in places other than where we were born, surrounded by people who we have to identify by our judgement alone with no background information to help us. How can we hope to do this successfully, if we lose our sixth sense, our subconscious sense of smell?

Acting on impulse

Two people meet in an air-conditioned restaurant that smells faintly of pine. Their clothes both smell of lemon, their breath of mint, their skin of sandalwood. They inhale from their food as it is put before them. The additives smell good.

Nonetheless, the woman finds herself strangely drawn to the man. She wonders if it could be love at first sight. Or is he just wearing Excite, a 'pheromone sachet' that biotech company Kiotech International was testing in English clubs a couple of years ago?

It has been said that humanity has three main needs – security, stimulus and identity. What effect on these are we having as we manipulate our most instinctive and discerning sense? We live in an age of insecurity, where we do not trust our neighbour and are unable to smell whether they are friend or foe. We are obsessed by the need for short-term stimulus, drenching ourselves in cheap and toxic perfumes and soaking our anaemic food in artificial smells. And as we scrub away our own natural odours, preferring to smell of Poison or Escape, might we not be losing our sense of identity too?

Jeremy Smith is the deputy editor of *The Ecologist*.

We are obsessed by the need for short-term stimulus, drenching ourselves in cheap and toxic perfumes and soaking our anaemic food in artificial smells.

GETTY IMAGES

NIGHTMARE JOURNEY ON THE M25? IT COULD BE FAR WORSE...

...CONSIDER 72 HOURS WITHOUT FOOD, REST OR WATER.

This is a typical journey for animals in the live export trade.

Compassion in World Farming believes that there is no excuse to inflict these long and difficult journeys on our animals and are calling on the Government to replace live animal exports with a trade in meat.

YOU have the power to help stop this cruelty, so please:

- contact us today to request an Action Pack
- join us at our Celebrity Fundraising Dinner at The Dorchester on Saturday 16 November - a unique and exciting event to raise much-needed funds for our emergency campaign. For details and ticket reservations, call Angie today on 01730 237 370
- support our urgent campaign with your donation.

Thank you!

YES I would like to help stop this cruelty and enclose my donation of £10 Other £ _____

I would like to purchase _____ ticket(s) for CIWF's Celebrity Fundraising Dinner
(tickets priced £100 each or £900 for a table of 10)

Full name: _____

Address: _____

Postcode: _____ Country: _____

E-mail: _____ Mobile phone no: _____

I enclose a cheque payable to CIWF for £ _____ **OR**

Please debit £ _____ from my MasterCard / VISA / Switch* / Delta

Card no: _____ Switch issue no*: _____ Expiry: _____ Today's date: _____

Signature: _____

OR call 01730 237 365 with your credit card details today

Please send me a free copy of CIWF's 'Ban Live Exports' Action Pack

Please return to: CIWF, A154, FREEPOST (GI/2198), PETERSFIELD, Hants GU32 3BR.

Reg No 2998256. Visit us at www.banliveexports.com

A154



campaigning
for farm animals

'It was unreal,' says Mike. 'We couldn't believe that the lawyers didn't realise what was going on. We expected to be kicked out, thrown off the stage or something.'

In a powerful and well-argued lecture (accompanied by graphs, slides and statistics), Unruh looked forward to the efficiently-managed, market-focused workforce of the future by examining some of the mistakes of the past. First he argued that the US Civil War – 'a war in which unbelievably huge amounts of money went right down the drain' – need never have happened. Fighting over slavery, of all things, said Unruh, was absurd. 'Left to their own devices,' he explained, 'markets would have eventually replaced slavery with "cleaner" sources of labour anyhow'. To prove this, he embarked on a 'thought experiment' in which he compared the likely current cost of maintaining an 'involuntarily imported workforce' in the US with the cost of leaving the potential slaves at home in Gabon to labour instead in sweatshops or fields of export crops. The latter, he concluded, was much cheaper and demonstrated that 'by forcing the issue, the North not only committed a terrible injustice against the freedom of the South, but also deprived slavery of its natural development into remote labour'.

Unruh demonstrates the 'employee visualisation appendage'. When tumescent, it enables managers to check employee performance. Data is transmitted from chips planted under workers' skin to a monitor on the appendage. Laggards are 'encouraged' with electric shocks.

While the assembled textilians were digesting the implications of such a revolutionary application of market theory, Unruh went on to look at India. Specifically, Gandhi – 'a likeable, well-meaning fellow who wanted to help his fellow workers along, but did not understand the benefits of open markets and free trade'. Gandhi's ideal of village self-sufficiency, Unruh explained, was just the sort of inefficient protectionist measure that modern India was rightly doing away with.

Finally, Unruh revealed to the delegates the WTO's vision of the worker-management relationship of the future. A 'central management problem', he explained, was 'how to maintain rapport with distant workers' – particularly important as multinational companies shift their production around the world in pursuit of the cheapest labour and laxest regulations. The WTO's solution was to employ the latest technology. To the sound of a drum roll, Unruh then ripped off his suit to reveal a golden, spangly, skin-tight leotard.

'This,' Unruh explained to the open-mouthed delegates, 'is the management leisure suit.' Before his audience had time to react, a three-foot golden phallus on the front of the suit began to inflate.

'This,' he explained to the open-mouthed delegates, 'is the management leisure suit.' Before his audience had time to react, a three-foot golden phallus on the front of the suit began to be inflated by a small gas cannister.

'This,' continued Unruh triumphantly, 'is the employee visualisation appendage.' Now fully tumescent, he went on to explain that the 'hip-mounted device' was fitted with a monitor which allowed managers to check the performance of their employees, receive data on their productivity (from chips planted under employees' skin) and administer electric shocks to the less hard-working. 'I'm very excited to be here,' he concluded – perhaps

unnecessarily. 'Thank you.' The audience, it seems, was impressed. As he stepped down from his podium, the man from the WTO was given a warm round of applause.

In an ex-council flat in north London, the man who co-wrote Hank Hardy Unruh's speech can't stop laughing. He may or may not be called Mike, and he may or may not be from New York.

He's a hard man to pin down; I've been trying to get hold of him for months, and he has corresponded with me under at least two different names.

Mike is one of the 'Yes Men' – the funniest, oddest, most mysterious and most brazen political activists around – and he has some explaining to do.

Hank Hardy Unruh's talk, of course, was a daring spoof. The next day, one of Finland's leading newspapers, *Aamulehti*, ran a serious and lengthy piece on the conference ('intelligent clothes and innovative fibres are part of everyday life of the future'), illustrated with a large photo of Hank's, erm, appendage. In colour.

Hank Hardy Unruh was not an official representative of the WTO but Mike's co-conspirator, Andy, who lives in Paris. Mike has a shock of curly brown hair, a loud Hawaiian shirt and a dose of jet lag – he's on his way to see Andy, and has stopped in London to explain to me what the Yes Men are up to, and why.

'The Yes Men started by accident,' he says. 'We set up a website – www.gatt.org – around the time of the Seattle protests [in 1999]. We thought of it as just a



satire site about the WTO, and we hoped people would accidentally end up there instead of at the WTO site.' Gatt.org continues to be such an effective parody of the official WTO site that you have to read it very carefully to see that it's a spoof. It works by taking the WTO's real, live aims and actions to their logical extremes – thus demonstrating their absurdity. The WTO sent its lawyers snapping ineffectively at the Yes Men's heels and posted a warning about them on the (real) WTO website. Mike and Andy thought all this was quite fun, but not much else. Until, that is, they started to receive emails from people who hadn't been paying close enough attention.

'People started emailing us, asking if Mike Moore [then head of the real WTO] would come and give a talk at their conference or meeting,' says Mike. 'The first few we sent on to Michael Moore [the US anti-establishment comedian]. We thought it might be funny if he went along instead, but he didn't reply. But then we thought, "wait a minute, we can go ourselves". So, the next one that came in, which was to a law conference in Salzburg, off we went.'

The Salzburg lawyers' conference was where the Yes Men were born. 'Dr Andreas Bichlbauer' arrived in Salzburg in October 2000 as an official representative of the WTO, and delivered a PowerPoint presentation about the obstacles that still had to be overcome if the process of globalisation was to fully succeed. The obstacles included the Italian siesta (an unfair barrier to trade, since few other nations indulged in it) and the US's one-person-one-vote system of democracy. Bichlbauer explained that the US's campaign finance system – under which corporations pay politicians to persuade voters to put them in office to pursue the corporations' agenda – was 'grotesquely inefficient'. He explained to the assembled lawyers, says Mike, 'that the solution was just to open voting to the markets and allow companies to pay people directly for votes'. Bichlbauer, like Hank Hardy Unruh, was actually Andy (who, Mike explains, 'actually becomes these characters – it's a little scary'). And Bichlbauer, like Unruh, was warmly applauded. No one objected to his speech, and no one questioned his identity.

'It was unreal,' says Mike. 'We couldn't believe that the lawyers didn't realise what was going on. We ►

WTO VERSUS THE ENVIRONMENT

Trade argument

Environmental and social argument

Outcome and implications

The Venezuelan gas case

A 1990 amendment to the US Clean Air Act requires refiners of gasoline to make cleaner gas. How much cleaner depends upon how dirty their gas was in 1990. Because it is hard to get good information on foreign refineries, the US Environmental Protection Agency chose to use the 1990 US industry average as the starting point for foreign refiners. The latter say this is discriminatory.

Refiners from Venezuela and other countries produce 'dirtier' gasoline than US domestic refineries. The US average is, therefore, a cleaner starting point from which to measure improvement than foreign refineries' levels. It would have led to cleaner foreign gasoline being sold in US cities with air pollution problems.

A WTO panel and appellate body decided that US rules were 'discriminatory'. The EPA will be forced to make new rules that obey the panel's decision. It is vital that the goal that really matters – cleaner air – is not compromised by the WTO ruling.

The Caribbean bananas case

European trade preferences for Caribbean bananas are unfair and discriminate against bananas grown by US companies in Central America.

Banana exports to Europe provide an important source of revenue and jobs in Caribbean nations – the banana growers of which are small farmers who are less dependant on pesticide-intensive plantation methods than giant companies like Dole and Chiquita.

A WTO panel decided that European preferences for Caribbean bananas were unfair. Officials in small Caribbean nations are worried the decision will devastate their banana industries and harm their economies, leaving their countries more vulnerable to drug trafficking.

The beef hormones case

The US claims that a European Union ban on imports of hormone-treated beef violates trade rules. The US has argued that beef from cows raised with hormones does not threaten human health.

The ban on hormones applies equally to European farmers and foreign producers. If European consumers and governments are opposed to hormones and want to promote more organic methods of raising cattle, they should have the absolute right to enact laws that support their values.

A WTO panel has decided in favour of the US complaint. WTO panels have the power to go over the heads of democratically elected governments to decide what health or environmental rules have a 'valid' scientific basis.

The shrimp and turtles case

The US restricts the import of shrimp from countries whose fishermen catch shrimp with methods that kill endangered sea turtles. Some Asian nations claim that the US can't use import bans to influence fishing behaviour outside US borders.

It is possible to catch shrimp without harming turtles by fitting shrimp nets with 'turtle excluder devices' (TEDs). US law requires domestic and foreign shrimp fishermen to use turtle-safe methods. This strikes the right balance between preserving shrimpers' jobs and saving threatened turtles around the world.

A WTO panel found US regulations in violation of trade rules, and declared a blanket ban on unilateral trade controls designed to protect the environment. An appeals panel upheld the decision, but on the narrower grounds that the US regulations had been applied in a discriminatory fashion.



expected to be kicked out, thrown off the stage or something. We were so shocked that they didn't realise it that we kept trying to get something more out of them. So we went to lunch with them, and Andy just kept pushing them – trying to get them to realise what was happening, trying to get this glimmer of realisation. So he was saying that Hitler's economic model had a lot to be said for it. People were a bit sceptical, but he explained he wasn't talking about the social problems, just the economics. Then they came round.'

But seriously!

Everything the Yes Men's 'WTO' says, while hardly likely to be put about by representatives of the real thing, is perfectly consistent with free market economics. In the reductionist, neo-liberal trade-uber-alles ideology of the times, everything that Bichlbauer and Unruh said in Salzburg and Tampere actually makes perfect economic sense. Cultural differences are a barrier to a single global market; Third World sweatshops are cheaper than importing slaves; Gandhi's homespun village economy would be firmly illegal under WTO rules, which ban countries from subsidising, protecting or promoting their own industries in the face of foreign competition. Everything that the Yes Men say to their audiences is merely market logic taken

to its most extreme. That, says Mike, is the point of the exercise.

'The whole premise is that you're exaggerating and mirroring what the people you're talking to are already saying,' he explains. 'I suppose the point of the Yes Men is to try and demonstrate how problematic liberal economics are, and where the trajectory that we're following is leading. Saying, "let's follow the ideas that most of the world is tied up in in one way or another to their logical extreme, and see where they get us". The idea is that at some stage among your audience there'll be some moment of realisation.

Trouble is, there isn't always. That's what we're realising – how much crap people will take if it comes from a person in a suit

representing something official like the WTO. The stuff people will believe in the name of free trade. These people in our audiences weren't stupid – they've all got PhDs and law degrees and all the rest. And we can stand there wearing a giant gold member and say that abolitionism was a waste of time and money – and these guys don't even murmur.'

Over the last few months, the Yes Men have been as busy as ever, responding to more invitations to talk. ('I guess at some stage, people are going to rumble us,' says Mike. 'You'd think it would have a short shelf life, but the invitations to talk just keep coming.') Andy has also done a live television interview, as a WTO representative, naturally, in which he announced the WTO's plans to introduce 'justice vouchers' that would discourage torture by oppressive regimes. Operating on the same basis as carbon-trading schemes intended to

tackle climate change, justice vouchers would 'give countries an economic incentive to give up torture'. The interviewer was surprised, but since the suggestion made economic sense he didn't push the matter.

What happens next is anybody's guess – it seems unlikely that the Yes Men

themselves know. Since I met Mike, though, the stakes have been upped. At his latest speaking engagement, in Sydney, Australia, in May, 'Kinnithrung Sprat' announced to a group of accountants the official winding-up of the WTO and its replacement with a 'Trade Regulation Organisation' based on the UN Charter of Human Rights. 'There are countless signs in the world today showing us the problems with our approach to trade,' he told his audience. 'We at the WTO are reacting to these signs by refounding our work upon new principles – human rather than corporate ones.'

Unfortunately, the real WTO has failed to follow the Yes Men's lead. Instead of dissolving itself, it has just appointed a new director general, Supachai Panitchpakdi, and is currently mulling over the corporate triumph that was the recent Earth Summit in Johannesburg. There, to the horror of environmentalists, the WTO was handed the task of deciding how to 'resolve' the legal conflicts between international agreements to prevent climate change, protect biological diversity and clean up the environment, and the WTO's own rules promoting unhindered global trade at any cost. No prizes for guessing which interest will come out ahead. The Yes Men, it seems, have enough ammunition to keep them going for a long while yet ■

Find out more about the Yes Men at www.theyesmen.org Enjoy their spoof WTO site at www.gatt.org. Author Paul Kingsnorth is writing a book about the worldwide anti-globalisation movement, to be published by Simon and Schuster in spring 2003.

'Well, Nigel, the protestors are, of course, entirely correct.' Granwyth Hulatberi (aka Mike of the Yes Men), acting 'spokesperson' for the WTO, live on CNBC's *European Marketwrap* programme on July 19, 2001 – the day before the G8 protests in Genoa.

'We're realising how much crap people will take if it comes from a person in a suit representing something official like the WTO. These people in our audiences weren't stupid – they've all got PhDs and law degrees.'



In the second part of our adaptation of *Fatal Harvest's* iconoclastic analysis of agribusiness propaganda, *The Ecologist* reveals the real cost of industrial food.

Cheap tricks

Myth Number 2

INDUSTRIAL FOOD IS CHEAP

Politicians, business leaders and the media continue to reassure US consumers that their food is the cheapest in the world. They repeat their mantra that the more that chemicals and technology are applied to agriculture, the more food will be produced and the lower the price will be for the consumer. This myth of cheap food is routinely used by agribusiness as a kind of economic blackmail against any who point out the devastating impacts of modern food production. Get rid of the industrial system, people are told, and they won't be able to afford food. Using this 'big lie', the industry has even succeeded in portraying supporters of organic food production as wealthy elitists who don't care about how much the poor will have to pay for food.

Under closer analysis, the US's supposedly cheap food supply becomes monumentally expensive. The myth of cheapness completely ignores the staggering externalised costs of the food, costs that do not appear on supermarket checkout receipts. Conventional analyses of the cost of food completely ignore the exponentially increasing social and environmental costs customers are currently paying and will have to pay in the future. Americans spend tens of billions of dollars in taxes, medical care, toxic clean-ups, insurance premiums and other pass-along costs to subsidise industrial food producers. Given the ever-increasing health, environmental and social destruction involved in industrial agriculture, the real price of this food production for future generations is incalculable.

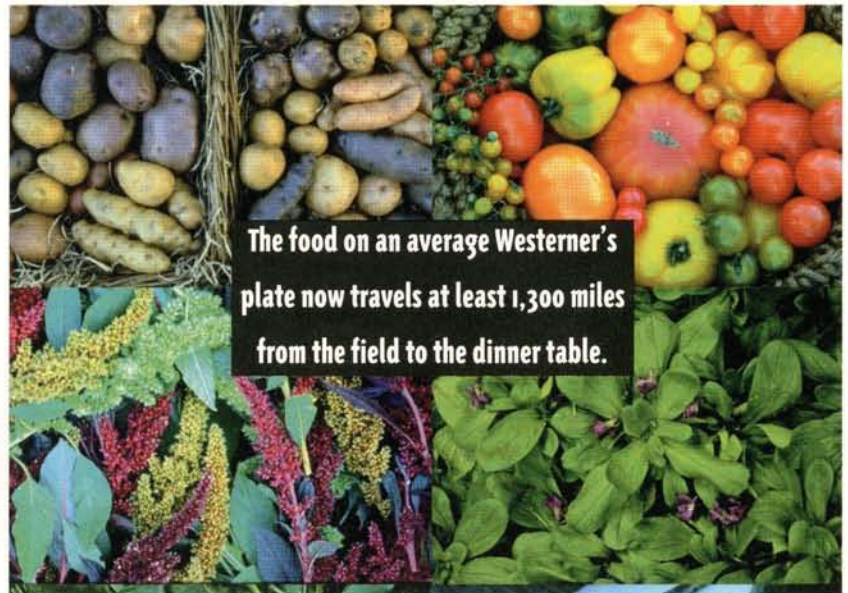
Environmental costs

Industrial agriculture's most significant external cost is its widespread destruction of the environment. Intensive use of pesticides and fertilisers seriously pollutes water, soil and air. This pollution problem grows worse over time, as pests become immune to the chemicals and more and more poisons are required. Meanwhile, animal factories produce 1.3 billion tons of manure each year. Laden with chemicals, antibiotics and hormones, the manure leaches into rivers and water tables – polluting drinking supplies and causing fish kills in the tens of millions.

The overuse of chemicals and machines on industrial farms erodes away the topsoil – the fertile earth from which all food is grown. The US has lost half of its topsoil since 1960, and continues losing topsoil 17 times faster than nature can create it. Biodiversity is also a victim of industrial agriculture's onslaught. The UN Food and Agriculture Organisation reports that 75 per cent of genetic diversity in agriculture disappeared in this past century. The resulting monocultured crops are genetically limited and far more susceptible to insects, blights, diseases and bad weather than are diverse crops.

There is also large-scale downstream pollution

caused by long-distance transport of industrial food. The food on an average Westerner's plate now travels at least 1,300 miles from the field to the dinner table. Vehicles moving food around the world burn massive amounts



The food on an average Westerner's plate now travels at least 1,300 miles from the field to the dinner table.

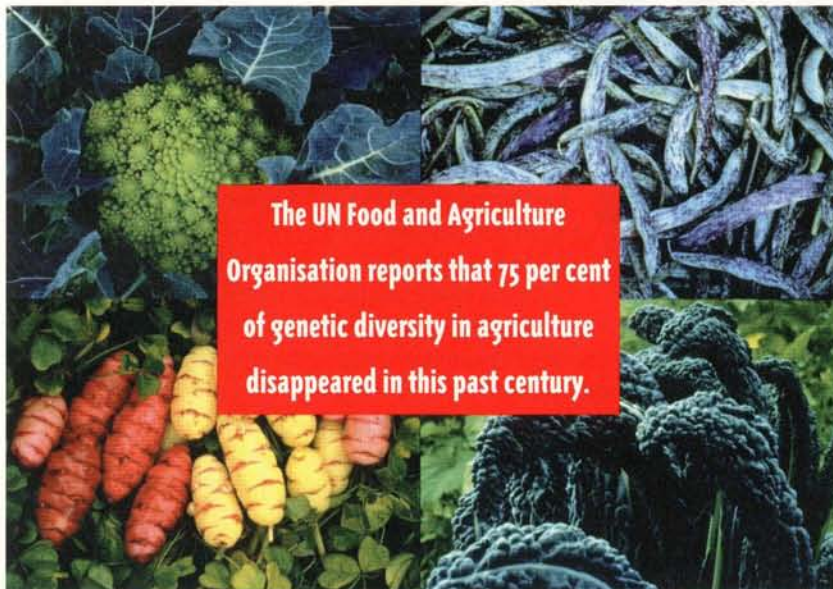
of fossil fuels, exacerbating air and water pollution problems. Currently, consumers pay billions of dollars annually in environmental costs directly attributed to industrial food production. This does not include the loss of irreplaceable and priceless biodiversity and topsoil, and the incalculable costs of problems such as global warming and ozone depletion.

Health costs

Conventional analyses also ignore the human health costs of consuming industrial foods, including the contribution of pesticides, hormones and other chemical inputs to the current cancer epidemic. Also uncalculated are the expenses and lost workdays of 80 million US citizens who contract food-borne illnesses each year. Moreover, industrial food's health price tag should reflect the expense, pain and suffering of the tens of millions who are victims of such diseases as obesity and heart disease caused by industrial fast-food diets. Taken together, these medical health costs are clearly in the hundreds of billions of dollars annually.

According to the US Department of Agriculture, farming is among the most accident-prone industries in the US. Whereas the occupational fatality rate for all private sector industries is 4.3 per 100,000 full-time employees, the rate for agriculture, forestry and fishing occupations was 24 per 100,000. That's nearly six times the national average. For migrant farmworkers, health conditions are even worse. According to Sandra Archibald of the Hubert H Humphrey Institute of Public Affairs, migrant workers – who now account for more than half of all food production in the US – are 15 times more likely to manifest symptoms of pesticide exposure than non-migrant farm employees in California. The US Environmental Protection Agency estimates that 300,000 farm workers suffer acute pesticide poisoning each year.

The UN Food and Agriculture Organisation reports that 75 per cent of genetic diversity in agriculture disappeared in this past century.



Loss of farms and communities

Industrial agriculture's dislocation of millions of farmers and thousands of farm communities also does not appear in usual food cost calculations. Seventy years ago there were nearly seven million US farmers. Today, after the onslaught of industrial agriculture, there are only about two million, even though the US population has doubled. Between 1987 and 1992, the US lost an average of 32,500 farms per year, about 80 per cent of which were family-run. A mere 50,000 farming operations now account for 75 per cent of US food production. Meanwhile, at supermarkets purportedly cheap food is getting more expensive as industrial agriculture passes along the high costs of wasteful processing and packaging techniques. But the money isn't going to the farmers. The vast majority of the profits go to corporate middlemen who squeeze farmers both when selling them seed and when purchasing their crops for processing.

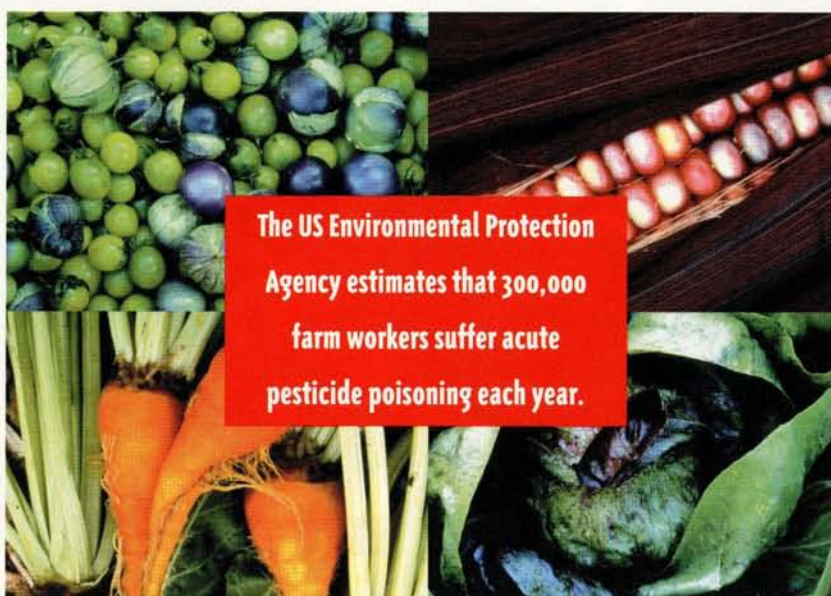
The loss of farmers also means the loss of farm communities and culture, along with the businesses those communities supported. Current costs associated with industrial food and agriculture do not include welfare and other government payments to ex-farmers and farmworkers driven into poverty. The US Office of Technology Assessment studied 200 communities and discovered that as farm size increases, so does poverty. As farm size and absentee ownership increase (both endemic to industrial agriculture), social conditions in local communities deteriorate. Businesses close and crime increases. It is difficult to put a dollar value on the loss of farmers and communities; clearly much of what is lost is priceless. However, numerous studies have put the costs of such dislocation since WWII in the tens of billions of dollars.

Tax subsidies

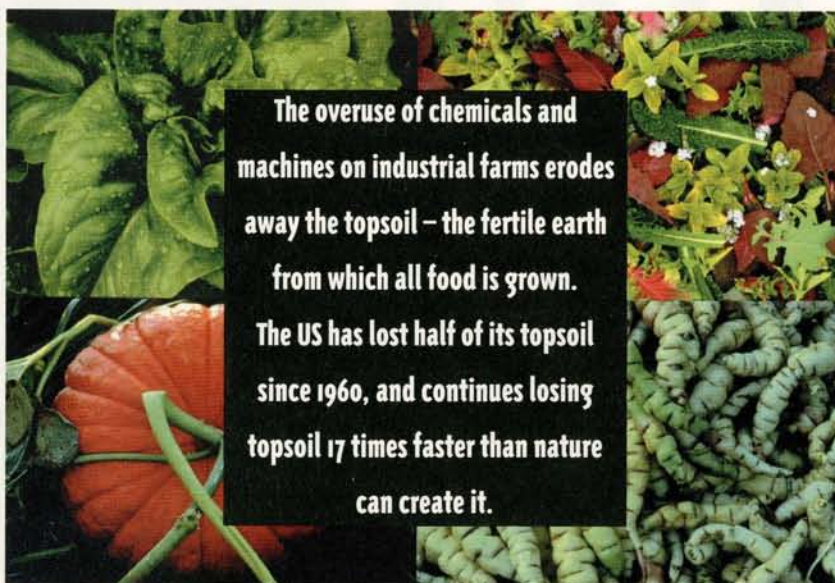
Taxpayers cover billions of dollars in government subsidies to industrial agriculture. Price supports, price 'fixing', tax credits and product promotion are all forms of 'welfare' for agribusiness. Among the most outrageous subsidies is the \$659m of taxpayer money spent each year to promote the products of industrial agriculture,

including \$1.6m to McDonald's to help market Chicken McNuggets in Singapore from 1986 to 1994, and \$11m to food manufacturer Pillsbury to promote the Doughboy in countries outside the US. Taken together, these subsidies add almost \$3 billion to the 'hidden' cost of foods to US consumers.

The myth that industrial food is cheap and affordable only survives because these environmental, health and social costs are not added to the price of industrial food. When we calculate the real price, it is clear that far from being cheap, the US's current food production system is imposing staggering monetary burdens on current and future generations. By contrast, non-industrial food production significantly reduces and can even eliminate most of these costs. Additionally, organic practices reduce or eliminate the use of many chemicals on food, substantially decreasing the threat of cancer and other diseases and thus cutting health-care costs. Finally, small-scale sustainable agriculture restores rural communities and creates farm jobs. If the public could only see the real price tag of the food we buy, purchasing decisions would be easy. Compared to industrial food, organic alternatives are the bargains of a lifetime.



The US Environmental Protection Agency estimates that 300,000 farm workers suffer acute pesticide poisoning each year.



The overuse of chemicals and machines on industrial farms erodes away the topsoil – the fertile earth from which all food is grown. The US has lost half of its topsoil since 1960, and continues losing topsoil 17 times faster than nature can create it.

Seventy years ago there were nearly seven million US farmers. Today, after the onslaught of industrial agriculture, there are only about two million, even though the US population has doubled. Between 1987 and 1992, the US lost an average of 32,500 farms per year – about 80 per cent of which were family run. A mere 50,000 farming operations now account for 75 per cent of US food production.

Health

To conclude this month's adaptation of *Fatal Harvest*, *The Ecologist* reveals how industrial agriculture contaminates our food with pesticides and dangerous bacteria.



Killing fields

CORBIS

Myth Number 2

**INDUSTRIAL FOOD IS SAFE,
HEALTHY AND NUTRITIOUS**

A modern supermarket aisle presents a perfect illusion of food safety. Consistency is a hallmark. Dozens of apples are on display, waxed and polished to a uniform lustre, few if any bearing a bruise, dent or other distinguishing characteristic. Nearby sit stacked pyramids of oranges, dyed an exact hue to emphasise the impression of ripeness. A shopper may stop to compare two almost identical Cellophane-wrapped heads of lettuce, as if trying to distinguish between a set of identical twins. Elsewhere, throughout the store, processed foods sit front and centre on perfectly spaced shelves, their bright, attractive cans, jars and boxes bearing colourful photographs of exquisitely prepared and presented foods. Everything looks unthreatening, perfectly safe, even good for you.

But as with all the myths of industrial agriculture things are not quite what they seem. The US federal agency the Centers for Disease Control and Prevention (CDC) has reported that between 1970 and 1999 food-borne illnesses in the US increased more than 10-fold. And according to the US Food and Drug Administration (FDA), at least 53 pesticides classified as carcinogenic are presently applied in massive amounts to our major food crops. While the industrialisation of the food supply progresses, we are witnessing an explosion in human health risks and a significant decrease in the nutritional value of our meals.

Increased cancer risk

A central component of the industrialised food system is the large-scale use of toxic chemicals. This toxic contamination of our food shows no sign of decreasing. Since 1989 overall pesticide use in the US has risen

by about 8 per cent, or 60 million pounds. In percentage terms, the use of pesticides that leave residues on food has increased even more. Additionally, the US Environmental Protection Agency (EPA) reports that more than 1 million US citizens drink water laced with pesticide run-off from industrial farms.

The primary health concern associated with this toxic dependency is cancer. The EPA has already identified more than 165 pesticides as potentially carcinogenic, with numerous chemical mixtures remaining untested. And residues from these potentially carcinogenic pesticides are left behind on our fruits and vegetables. In 1998 the FDA detected pesticide residues in over 35 per cent of the food tested.

Many US products have tested as being more toxic than those from other countries. What's worse, current standards for pesticides in food do not yet include specific protection for foetuses, infants or young children – despite major changes made to federal pesticide laws in 1996 that stipulated such reforms. Many scientists believe pesticides play a major part in the current cancer 'epidemic' among US children.

The cancer risk does not just affect consumers. It also imperils tens of thousands of farmers, field hands and migrant labourers. A study by the US National Cancer Institute found that farmers who used industrial herbicides were six times more likely than non-farmers to develop non-Hodgkin's lymphoma, a form of cancer.

Along with their cancer risk, pesticides can cause myriad other health problems – especially for young people. For example, exposure to neurotoxic compounds ►

According to the US Food and Drug Administration, at least 53 pesticides classified as carcinogenic are presently applied in massive amounts to our major food crops.

like PCBs and organophosphate insecticides during critical periods of development can cause permanent damage to the brain and nervous and reproductive systems.

Increased food-borne bacteria

Industrialised food production has brought with it a rise in other food-borne illnesses besides those associated with pesticide. CDC researchers estimate that food-borne pathogens now infect up to 80 million people a year and cause over 9,000 deaths in the US alone.

This increase is largely attributed to the industrialisation of poultry and livestock production. Most meat products now begin in 'animal factories', where food animals are confined in shockingly inhumane and overly crowded conditions. This results in widespread disease among animals and the creation of food-borne illnesses. According to the CDC, reported cases of disease from salmonella and *E. coli* pathogens are 10 times greater than they were two decades ago, and cases of campylobacter have more than doubled. The CDC saw none of these pathogens in meat until the late 1970s when 'animal factories' became the dominant means of meat production. Even our fruit and vegetables get contaminated by these pathogens through exposure to tainted fertilisers and sewage sludge. Contamination can also occur during industrialised processing and long-distance shipment.

The use of antibiotics in farm animal production may also be accelerating the alarming growth of antibiotic resistance exhibited by dangerous pathogens. Residues of these veterinary antibiotics that make their way into our food supply may confer resistance upon bacteria responsible for a wide variety of human maladies. Infections resistant to antibiotics are now the 11th leading cause of death in the US.

Guided by popular media reports, we may hastily conclude that doctors

– by over-prescribing antibiotics for people, are solely to blame for growing resistance. This assessment ignores the fact that nearly 50 per cent of US antibiotics are given to animals, not humans.

The introduction of fast, processed and frozen foods in the 1950s has forever changed our dietary habits. At least 175,000 fast-food restaurants have sprouted among the gas stations, strip malls and convenience stores of the US's ever creeping suburban sprawl. Frozen dinners, pre-packaged meals and take-away burgers have, for many people, replaced the home-cooked meal. Consequently, people are consuming more calories, preservatives and sugar than ever before, while reducing their intake of fresh whole fruits and vegetables. It is no mystery that these changes have led to overwhelming increases in obesity, type-II diabetes, high blood pressure and heart disease among US citizens. About one in three Americans is overweight, and obesity is now at epidemic levels in the US.

A study by New York University and the non-profit Center for Science in the Public Interest stated: 'Added sugars – found largely in junk foods such as soft drinks, cakes and cookies – squeeze healthier foods out of the diet. That sugar now accounts for 16 per cent of the calories consumed by the average US citizen and 20 per cent of teenagers' calories. Twenty years ago US teens consumed almost twice as much milk as soda. Today they consume almost twice as much soda as milk.' And the US Surgeon General has determined that two out of every three premature US deaths is related to diet.

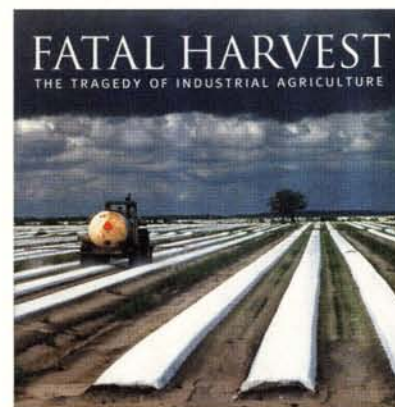
New technologies: a cleaner curse

When confronted with the health crisis that their food has caused, the purveyors of industrial food respond by assuring us that new industrial technologies will provide a quick fix. In response to the huge increase in food-borne illnesses, the industry promotes the use of irradiation to

sanitise our foods. Through this technology, the average hamburger may receive the equivalent of millions of chest X-rays in an attempt to temporarily remove any potential bacterial contaminants. However, as the meat flows through the industrial food supply – from manufacturer to wholesaler, and retailer to consumer – it loses its 'protection' and is quickly subject to additional contamination. Meanwhile, numerous studies have shown that consuming irradiated meat can cause DNA damage resulting in abnormalities in laboratory animals and their offspring. Irradiation can also destroy essential vitamins and nutrients present in foods, and it can make food taste and smell rancid.

Contrary to the US government's pronouncements, industrial food is not safe. It is, in fact, becoming increasingly deadly and devoid of nutrition. Ultimately, food safety cannot be achieved through political fiat or technological quick fixes. Increased dependence on chemical, nuclear or genetically engineered inputs will only intensify the problem. The real solution is a return to sound organic agricultural practices. It turns out that food production that is safe for the environment, humane to animals and rooted in community and independence is also a food supply that is safe and nutritious for humans ■

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NO WAR.

NO AIDS.

NO POVERTY.

NO DRUG ABUSE.

NO CASTE SYSTEM.

NO CORRUPTION.

NO POLLUTION.

NO OVERPOPULATION.

NO NUCLEAR WEAPONS.



AND PEOPLE CALL THEM UNCIVILISED. They are the Jarawa, a tribe which has thrived for thousands of years on a tiny cluster of islands in the Indian Ocean. Now all that is changing. The government of India, to which these islands belong, laid out a Master Plan for resettling the Jarawa in one place. Precisely the type of scheme which history has repeatedly proven to be disastrous. According to one expert, unless the government changes its policies, the Jarawa "will end up as beggars, servants and prostitutes." Survival is urging India to let the Jarawa decide their own future. The essential first step: that they be secure in their ancestral lands. Call Survival on 020 7242 1441 or visit www.survival-international.org

Survival
for tribal peoples 

Resource Wars: Fighting Mul

1 NAMIBIA

Stop air pollution

'Sasol pollutes the air we breathe, causing poor health and bad living conditions while making huge profits for itself. It funds a couple of community projects, thinking we will forget about the pollution. How can we forget when the pollution is making our parents, brothers and sisters sick? Residents of Sasolburg are running out of patience with Sasol's arrogance. Sasol puts nothing of value into the community while taking away the very air that we breathe. Enough is enough.' Lerato Kasa, chairperson of the Sasolburg Environmental Committee.

Multinational: Chemicals giant Sasol.

For more information: www.gpudwork.org.za

2 NICARAGUA

'No' to GM food aid

'It is unacceptable that the children of Nicaragua are consuming genetically-modified products that come masked as food aid for our country. It is well-known that baby-food companies in the US and Europe do not use genetically-modified products. Nevertheless, our highly vulnerable condition has been used to send products that children in developed countries do not consume.' Victor Campos, FOE Nicaragua.

Multinationals: Biotech corporations Aventis and Monsanto.

For more information: www.foe.org/foodaid

3 UNITED KINGDOM

Save our peat bogs

'I have lived on the edge of Hatfield Moor, south Yorkshire, virtually all of my life. Childhood and teenage memories are of a wonderful wilderness. Now the devastation is heartbreaking. The last decade has seen a US multinational plunder a UK treasure so it can make massive short-term profits.' Helen Kirk, Hatfield Moor Conservation.

Multinational: Garden products firm the Scott's Company.

For more information: www.foe.co.uk

4 CZECH REPUBLIC

Car plant and aluminium works to swallow farmland

'Investors like greenfields. There are brownfields [in the district], but why would we build a factory in the middle of a former coal pit? They would have to pave the roads with gold for us to go there.' Spokesman for Mexican car components manufacturer Nemak.

Multinationals: Ford, Nemak.

For more information: www.bankwatch.org

5 MALTA

Farming, not golf

'This land has been tilled by our forefathers and by us for hundreds of years. Now land speculators have cast their eyes on it with the specific aim of constructing a golf course. Our livelihoods and those of our families depend on these 65 hectares of land.' Maltese farmer.

Multinationals: Developer AX Holdings and leisure groups Carlson Companies and Regent Hotels.

For more information: foe@malta.net

Multinational: Chemicals giant Sasol.

For more information: www.gpudwork.org.za

17 COLOMBIA

Blood vs oil

'Oil is the blood of Mother Earth. It belongs to the ground, where it sustains the world below. Up here it only causes violence and death.' Luis Cabellero, vice president of the Traditional U'wa Authority.

Multinational: Occidental Petroleum.

For more information: www.uwacolombia.org www.censat.org www.ran.org www.moles.org

20 PERU

Mangoes vs mining

'The mining company and the Peruvian government irresponsibly claim that agriculture and mining can harmoniously co-exist, but we know that isn't so. In order to get to the minerals, one must go under the subsoil, thereby disrupting everything that lies on the surface, including the forest, the river, the landscape, the wildlife – not to mention people's homes, farms, livelihoods and heritage.' Ulises Garcia, San Lorenzo Valley farmer and activist.

Multinational: Manhattan Minerals Corporation.

For more information: www.foei.org/ifi/tambogrande www.labor.org.pe www.oxfamamerica.org www.geocities.com/frentetambogrande

15 SAHEL

Chad-Cameroon pipeline

'Oil industry people are piling up money to save in the North, and putting the Cameroonians they hire under a modern form of slavery.' Chad-Cameroon pipeline worker.

Multinationals: Oil producers Exxon Mobil, Chevron, Petronas.

For more information: www.foei.org/ifi

19 BRAZIL

Gas pipeline to prostitution

'The pipeline passes close to the indigenous reserve, and will damage indigenous lands and people. We are expecting problems like alcohol consumption due to contact with workers. And there is also the family problem. The men that will come don't have families, and we then have a problem with prostitution.' João Batista Apurinã, leader of the Union of Indigenous People from the Purus River.

Multinationals: Gas producers Petrobras and El Paso Energy.

For more information: www.amazonia.org.br/english

18 CHILE

Aluminium kills

'The construction and operation of the dams and plant will have serious impacts on our rivers and fishing stocks. Small-scale fishing is one of the region's most important activities, and our fisherpeople will also be negatively impacted by the increased ship traffic in the Aysén fjord.' Alianza Aysén de Vida.

Multinational: Canadian mining firm Noranda.

For more information: alianza_aysen_reserva_de_vida_c/o_foe_chile_bosque2@codeff.cl

16 NIGERIA

Shell on Earth

Bare facts: Thousands of Shell oil spills have occurred in Nigeria in the past few decades, with little or no clean-up by the company. In 1998, 400 people were killed in a pipeline explosion. In 2001, an oil spill in Ogdobo destroyed the only source of drinking water for 15,000 people.

'When I die, know that Shell killed me.' Jerome Atariku, age 7.

Multinational: Shell.

For more information: www.essentialaction.org/shell/era/era.html www.oilwatch.org.ec

Multinationals Across The World

6 LITHUANIA

Sea drilling threatens park

'Oil is a painful memory for the people living here. We experienced an oil spill in June 1983 during the test drilling for the D-6 oilfield. Most of us are trying to protect our clean beaches, sea water, fish and seabirds from the oil.' Kazimieras Mizgiris, renowned Lithuanian photographer and resident of Curonian Spit

Multinational: Russian oil producer Lukoil.

For more information:
www.bankwatch.org

7 NORWAY

Sea pollution traced to chemical giants

'It is highly reasonable that companies which have produced, sold and earned income from PCBs and which have been closer than anyone else to knowing about the harmful effects of the substance should contribute towards the cost of clean-up.' Øivind Østberg, Norwegian lawyer.

Multinationals: Monsanto and chemicals firms Bayer and Kanegafuchi.

For more information:
www.naturvern.no/gift/index.en.html
www.teo@naturvern.no

8 AZERBAIJAN / GEORGIA

Piping to the rich, bypassing the poor

The Baku-Ceyhan oil pipeline will cross through extremely biodiverse regions, including Azerbaijan's Gobustani reserve, unique forest and mineral water reserves in Georgia's Borjomi nature park, and unique wetlands designated for Ramsar protection.

What's more, as local campaigner Samir Isaev says, 'the oil and gas from the Caspian will be piped straight to Western markets, completely bypassing local communities'.

Multinationals: Oil producers British Petroleum, Eni, Statoil, Unocal and TotalFinaElf.

For more information:
www.bankwatch.org

9 MALAYSIA

Stop logging Sarawak forests

'We asked for forest reserves. We asked them not to disturb the land surrounding our longhouses. We asked for a school for the village so that our children could go to school. We asked for clinics. Instead they gave us the logging companies.' Ajang Kiew, Long Sayan, Sarawak, Malaysia.

Multinationals: Loggers Samling, Limbang, Rimbunan Hijau and Interhill Logging, and furniture manufacturer Woodman.

For more information:
www.surforever.com/sam

10 PAPUA NEW GUINEA

The Ok Tedi and Fly rivers pollution

'The Ok Tedi mine is causing the southern hemisphere's single worst environmental disaster. The damage from the mine will last for most of the 21st century. BHP must demonstrate that it is willing and able to solve existing problems so it does not create new ones.' Wep Kanawi Obe, of Papua New Guinea NGO Environmental Watch Group.

Multinational: BHP Billiton, major shareholder in Ok Tedi Mining Ltd and the mine operator until early 2002.

For more information:
www.mpi.org.au/oktedi

11 AUSTRALIA

Sacred Lake Cowell

'The majority of Wiradjuri people are against the proposed gold mine at Lake Cowell. This is part of the sacred heartland of the Wiradjuri nation. We don't want to see our cultural heritage destroyed, or the land and waters poisoned by the cyanide used to extract gold. The place should be left as it is. But Barrick doesn't care about any of this. It just wants to mine the gold under the lake and take the profits out of Australia. The mine's only got a possible 13-year life, but the lake is millions of years old. We've got plenty of gold mines in Australia. We don't need this one.' Wiradjuri traditional owner Neville Williams.

Multinational: Barrick Gold.

For more information:
www.rainforestinfo.org.au/gold/lakep.html

12 AUSTRALIA

Pulped for paper

'It is an international disgrace to see Australia's forests destroyed to trade on the international woodchip market. These forests will ultimately end up in Japanese garbage dumps as waste paper.' Anthony Amis, FoE.

Multinational: Japanese pulp and paper manufacturer Nihon Unipac.

For more information:
www.goolengook.forests.org.au

14 INDONESIA

Logging of rainforest

Bare facts: During the past 30 years, commercial logging has destroyed nearly three quarters of Indonesia's rainforest. That is the world's fastest national rate of deforestation (2-3 million hectares destroyed every year). Asia Pulp & Paper is responsible for decimating large areas of Indonesian rainforest. It is the largest corporate debtor in the world, owing \$13 billion to hundreds of banks. The company has been involved in conflicts with indigenous people attempting to blockade the road to the company's facilities.

Multinational: Asia Pulp & Paper.

For more information:
www.foe.co.uk/campaigns/corporates/case_studies/app
www.walhi.or.id

13 INDONESIA

Gold diggers in the Poboya protected forest

'There is no community mining. The community feels prosperous with our lives now. If Rio Tinto goes ahead with mining in the area, our agriculture will be lost and the community will be faced with finding new sources of livelihood. We do not need gold.' Lakapa, head of Kambuno village.

Multinational: Mining giant Rio Tinto.

For more information:
www.jatam.org www.moles.org
www.mpi.org



You may not have heard of him yet, but peasant farmer Evo Morales is one of Bolivia's most influential figures. With popular support established for his party MAS, he is a force to be reckoned with in congress and may well be his country's next president. The US has other ideas, however. Evo Morales talks to Benjamin Backwell.

From COCA to congress

Being the centre of attention does not come easy for Evo Morales. The day before our Buenos Aires interview he had smiled awkwardly as hundreds of poor Bolivian immigrants crowded around him for autographs. On the morning of our meeting he had been besieged by journalists, documentary makers, local politicians and activists. Everyone, it seemed, wanted to meet the peasant farmer who earlier this year was almost elected Bolivian president.

Wearing jeans, a V-necked sweater and a cheap anorak, a tired looking Morales resisted all pressure to whisk him off to another event at the meeting of the World Social Forum. Instead he sat down with me in the lobby of the central Buenos Aires hotel where he was staying. Now and again, a smartly-dressed porter handed him the lobby phone: yet more requests for meetings. Some business types in suits sipping coffee nearby looked on curiously.

In Buenos Aires, Bolivians with Indian features – known derogatively as *bolitas* – don't normally sit in hotel lobbies, let alone receive this kind of attention.

Water wars

A tireless campaigner for the rights of Bolivia's indigenous peoples, Evo Morales is at the forefront of the *cocaleros* movement in the jungle region of Chapare. The movement has pitted peasant farmers against US-sponsored attempts to eradicate the production of coca leaves. (The latter are used – but by no means exclusively – to make cocaine.) Morales has been involved in struggles over land and resources since he moved to Chapare as a teenager.

Two years ago the population of the Chapare city of Cochabamba fought an epic battle against the selling off of its water. First the World Bank refused to renew a \$25m loan unless water services were privatised. Then US water giant Bechtel

stepped in and took control. It raised water rates by an average of 35 per cent, meaning Bolivians earning \$100 per month were paying a monthly rate of \$20 for water. People even had to obtain licenses to collect rainwater from their roofs.

The people of Cochabamba took to the streets – tens of thousands protesting daily against the rate hikes and subsequent water cut-offs. The so-called 'water war' led to months of confrontations, the killing of demonstrators by the police and a state of siege in the region. Eventually, the escalating protests ignited a general strike that shut down the city's economy. At the protests' height, Bechtel abandoned Bolivia and filed a \$40m lawsuit against the government, claiming compensation for lost profits under a bilateral investment treaty.

Many of the participants in the *cocalero* and *campesino* organisations, Morales included, were schooled in this conflict. Their campaign's strong anti-globalisation



ALL PICS: JEREMY BIGWOOD

'If I had been elected, I would have been president. But the power would have been in the organisations and not in Evo Morales. Nothing like the traditional presidents, who stuff the government with their children and friends. We really want all the nepotism and corruption to end right here.'

focus struck a chord among large sections of the local population who spent months facing down violent repression that included mass arrests, internal exile and killings. Significantly, these local activists began to reach out to form valuable connections with anti-globalisation and ecological groups across the world.

Not surprisingly, Morales has also become something of a public enemy for the US. He has been mocked in the US press as a 'coca-chewing Aymara Indian leader who would nationalise Bolivia's industries, stop payment of its foreign debt and halt US-backed efforts to end coca growing' (*New York Times*, 6 July, 2002). But this has done little to arrest his rise to popularity in Bolivia.

Earlier this year, after three police officers were killed in a confrontation at the attempted closure of a coca market, Morales's links to coca farmers led to his expulsion from congress and the threat of

imprisonment. No evidence was provided proving his involvement.

The week before the election, the US ambassador in La Paz Manuel Rocha declared: 'As a representative of the US, I want to remind the Bolivian electorate that if you elect those who want Bolivia to become a major cocaine exporter again, this will endanger the future of US assistance to Bolivia.'

If anything, the ambassador's threat boosted Morales's campaign. It allowed him to present himself as the only candidate not following orders from the US. Morales was able to tap into a deep undercurrent of nationalism and local resentment over the way political decisions were seemingly being made, with the compliance of an ever more malleable La Paz elite, far away in Washington.

And when I met him Evo Morales seemed, despite the bags under his eyes, a happy man. ►

The Ecologist: What are the origins of your movement?

Morales: 'MAS (the Movement to Socialism) is about seven years old.

'After long experiences of broken promises in the countryside we had come to the conclusion that what we needed was a way to change the whole political system. As long as we carried on voting for the mainstream parties, we knew we were going to keep seeing massacres, militarisation and bad economic policies.

'So, in 1995 we attempted to form a party – the Political Instrument for Peoples' Sovereignty. We had continual legal problems because the Supreme Court refused to recognise us. Eventually, an older party, MAS, agreed to transfer to us its electoral registration name, to which we are now in the process of adding "communitarian" or "pachakuti", which means "the new world" in indigenous language.

'In 1999 we took part in local elections and won seats in seven of the nine provinces that make up the country. In the 2002 elections we became the second largest party in congress, and came close to winning the presidency.'

The Ecologist: Why do you think the movement grew so fast?

Morales: 'I think above all because we represent honesty and not corruption.

'I am someone who has no academic formation, and couldn't even finish secondary school because I had no money. I had to go to Chapare when I was still young in order to survive, when I had just finished my military service.

'Nobody can say that we have sold out, that we have received money – and I have received so many offers. The ex-president, Jaime Paz Zamora, offered me the vice-presidency of the republic. Other parties wanted to make me senator. But I have always tried to stay at the service of the social movements.

'In the 2002 campaign, lots of middle class people – and even upper class people – told me: "Evo, you are not prepared to be in the government, but at least you are

honest". And many of them even voted for me. I also had a lot of poor people say to me: "I'll vote for you, but afterwards don't you negotiate my vote". That's why we didn't make a deal with the other parties so that I would be elected president by congress. It would have meant having to horse-trade for all the posts in the government, and we would have ended up with all kinds of corrupt people.'

The Ecologist: It's very typical for parties in Bolivia to start off in the opposition but then end up being co-opted and supporting neo-liberal reforms. What guarantees do you have that this won't happen with your movement?

Morales: 'MAS does not have its own separate structures, but is really just the same structures as the social movements, and it is these structures that are in control. We do not manage things vertically, imposing things from above. This is the best guarantee, that the grassroots controls the congressmen, the senators and the leadership of the union.

If I had been elected, I would have been president, but the power would have been in the organisations and not in Evo Morales. Nothing like the traditional presidents, who stuff the government with their children and friends. We really want all the nepotism and corruption to end right here.'

The Ecologist: Why is this happening in Bolivia now?

Morales: 'I think that every millennium brings its change, and that this is the millennium of the united nations of indigenous people. Why now? Ever since I was a child we have had different indigenous movements in Bolivia, but they always ended up divided or co-opted by the government. This movement is different, both because it is massive and able to incorporate a whole diversity of figures and social organisations, and because we have our feet firmly on the ground. In fact, it took years for the other people in the movement to

convince me to stand for congress, yet alone as president.'

The Ecologist: The other congressmen expelled you from parliament...

Morales: 'I was the congressman with the highest proportion of votes for his area and "obeying an order from the US" they voted to expel me from congress. It is only recently that the constitutional court finally declared the whole farce illegal, and now they are having to pay compensation for what they did.'

The Ecologist: What are the main planks of MAS's politics?

Morales: 'More than anything, the struggle for dignity and sovereignty. And not just in terms of territory, but sovereignty in terms of food production, in terms of the decisions that the people make. We believe that the indigenous people, the Quechua and Aymara, are the absolute owners of the land.'

The Ecologist: What does the US want to achieve in Bolivia?

Morales: 'The US is seeking hegemony on a world scale and has always sought to dominate Latin America. The "war against drugs" is just a pretext for the US to control our countries.

'The war against drugs is false. The origin of the narcotics trade is the US itself, which constitutes the principal market for cocaine. Why don't they eradicate the demand? If it weren't for the money that the US drug trade moves not a single leaf of coca would go towards the drug trade. And it's not just consumption. According to the UN, 50 per cent of drug money is laundered in the US. You can only stop that by getting rid of banking secrecy laws.

'I think the main interest in the war

'The "war against drugs" is just a pretext for the US to control our countries. The war is false. The origin of the narcotics trade is the US itself.'



Morales supporters campaigning against drug cartels.

against drugs is penalising social protest. In the 1960s they accused the Bolivian miners of being communists in order to persecute them. Then they accused poor people of being "narcos" in the 1980s and 1990s, and now after September 11 they are calling us terrorists. These are forms of criminalising protest.'

The Ecologist: What is the relationship between the coca produced for local consumption (for tea, chewing and medicinal purposes) and the coca grown for export and for the drugs trade?

Morales: 'There is a difficulty in producing all the traditional coca products due to competition from cheaper imports. This means a lot of the excess coca production goes into the illegal drug market, which we are against. There is also export of coca leaves for legal purposes, such as pharmaceuticals, herbal teas, alcoholic and soft drinks. There are even US front companies that buy coca leaves in Chapare, although it is not clear what the purpose is.'

The Ecologist: Do you think more markets will open up for coca?

Morales: 'There is a lot of interest at the moment. Portugal is buying legally from Bolivia, and so are Holland and Italy where they make a special wine.'

The Ecologist: What is life like for a typical family in Chapare?

Morales: 'It depends on the market, and on the eradication campaigns. Usually crops are eradicated, planted again, eradicated and so on. This permits a kind of survival. Given the complete lack of markets for non-coca agricultural goods, though, it's hard to say to a peasant that they should not produce any coca.'

'For the indigenous movement, having land means having work, but the problem is that there is no market. Poor people in the cities cannot buy, and we cannot sell. Most peasants have chickens, and plant corn, potatoes, manioc and fruit for their own consumption. But there is no surplus to buy tools or pay for education.'

'That's where the coca comes in. Some can be sold in the legal market, and some is sold illegally. Paradoxically, with the eradication campaigns the price has gone



Banner supporting legal use of MAS coca leaf.

up in the legal market – making it more difficult for people to buy. But the price has also gone up in the illegal market, making it more attractive to grow. A pound of coca is now about 20 bolivianos – around \$3, which is much more than before.'

The Ecologist: How do the eradication campaigns work?

Morales: 'On any given day the bullets are flying. The eradication teams come accompanied by helicopters, small planes and ploughing machines that root out the crops. They used to cut them just above the ground, but that just led to better growth. Now they tear them out at the roots. However, when they know the army is coming many people pull the plants out and hide them on the mountain, then plant them again later in the day. Sometimes this happens several times a day.'

'We are challenging the eradication campaigns in congress, and calling ministers in for congressional hearings. Much of what is done is illegal. What we want to do is find non-violent solutions for

the coca growers. We need to create a voluntary and concerted programme for crop substitution, which allows the peasants to grow alternative crops and be able to live from them.'

'Another question hangs over the US Drug Enforcement Agency commanded by Francisco Alvarez, a former colonel from the Vietnam war. Its active participation in Bolivia is unconstitutional, as the constitution does not permit armed foreigners to operate here or command our armed forces or police.'

The Ecologist: What are you going to do now that you have strength in parliament?

Morales: 'Neo-liberalism is a savage and inhumane type of capitalism that permits the concentration of capital in fewer and fewer hands. We are starting co-operatives and companies that are run collectively by their workers, and we are looking at the experience of the swap market in Argentina.'

'State capitalism is finished, and now it's the people's turn. We want self-managed companies instead of state companies and multinationals. Of course, the state will have to promote the collective, self-managed companies and strengthen the struggle for self-determination. This is basically the centre of our programme.'

'The US accused poor people of being "narcos" in the 1980s and 1990s. Since September 11 they call us terrorists. They are criminalising protest.'

The Ecologist: How will you achieve this?

Morales: 'On a political level it's about refounding Bolivia on a new basis. On an economic level it's about stopping and reversing privatisation.'

We want to get our companies and natural resources back, because we can't allow them to be concentrated in the hands of a few transnational corporations. On a social level we have to end corruption and repression – for example, the state financing of mercenaries. That money must be used for social costs, such as education and health. On the level of justice it's important to replace the system of injustice with one of justice. Today they call what can be bought justice. Rights depend on money. This has to end.' ■

Call me paranoid, but...

Eduardo Gonçalves reveals a secret US plot to assassinate key European politicians.



For those who say politics should be about the little guy I say you don't get littler than George W Bush. He has become so brazen of late that he has given real credence to those – usually mocked as conspiracy theory cranks – who say modern democracy simply serves the interests of the rich, and that international relations are rigged so as to satisfy their appetite for natural resources (especially oil) – however barbaric the consequences for people and the planet.

The problem is that once you start down this road you can end up getting very paranoid. As it is, I'm feeling rather paranoid right now. You see, the last time I broached the subject of this month's column I had armed paramilitary police with dogs at my door, and an unmarked military helicopter circling my home. See what I mean? I sound like a crank already.

The subject is the mysterious death of a fellow Portuguese a few years ago. An official investigation ruled that his death was an accident. What raised the ire of the authorities was my suggestion that the dead man, Sa Carneiro, was the victim of an assassination plot linked to the murky history of the US's secret arms dealings with Iran. Trouble was that when the light aircraft he was travelling in crashed shortly after take-off, Carneiro was no ordinary citizen. He was Portugal's Prime Minister.

I did not make my suggestion lightly. My conclusion was based on evidence of a bomb explosion on board the plane, testimony from experts who examined X-rays of the bodies, information from Scotland Yard detectives and statements made by persons confessing their involvement in the plot to a special commission of investigation set up by Portuguese MPs.

The latter said that the intended victim was not in fact Carneiro but the country's defence minister, Amaro da Costa, who had uncovered a secret slush fund used by senior military figures in Portugal to process the supply of US weapons (labelled as 'farm equipment') via the country's ports to Iran.

Da Costa had gathered enough evidence to blow the whistle on the scam. This would have been a teensy bit embarrassing – not least for George Bush Sr, the retiring head of the CIA who had just been elected US vice-president following the supposed 'October Surprise' scandal.

(The 'surprise' was that Dubya's Dad is said to have met secretly with Iran's ayatollahs so as to deliberately delay the release of US hostages held in Tehran and deny incumbent President Jimmy Carter any political advantage and thus ensure Ronnie Reagan's victory.)

Far-fetched? Not according to Ricardo Sa Fernandes, a lawyer representing the families of the victims of the

Carneiro 'crash', and who also happens to have been Portugal's finance minister until recently. He has published an explosive book on the subject, in which he tears the official 'accident' verdict to shreds and catalogues the perpetrators' method, their motive and the extraordinary cover-up of the evidence.

What is more, Fernandes reveals how Henry Kissinger (funny how he always crops up at times like these) visited Portugal shortly before the crash – supposedly to discuss the ongoing crisis in Zambia, but in reality to seek authorisation for



another special relationship

the use of Portuguese ports as a bridging station for the arms transactions. When the government refused, the US co-opted senior Portuguese military officers to help them operate in covert defiance of Portugal's elected administration.

Now, a former CIA chief has revealed that Da Costa planned to fly to New York to publicly denounce the flagrant violation of Portuguese sovereignty at the UN. Oswald LeWinter (who has been startling his former employers with revelations about the Lockerbie bombing, among other things) has even suggested that US agencies were involved in plots to kill other elected European leaders. All to ensure 'political stability' – or, in plain language, to protect US economic privileges. LeWinter plans to reveal all in a new book.

So could stories like these explain why the US is so worried about the international war crimes tribunal? The US Congress has voted itself the 'right' to take military action against any country, friend or foe, that arrests a US citizen on supposed war crimes charges. Might not the Bush clan (or their friends, like Kissinger) be concerned that its next foreign excursion could end in a trip to The Hague?

Well, I guess if I'm not here next month, you'll know the answer to that question... Or am I just being paranoid?

Eduardo Gonçalves is a Portuguese investigative journalist

Since defeating the government in 1984 over its compulsory warble fly eradication scheme, Mark Purdey has been travelling the world to find the real cause of BSE and vCJD. His conclusions are controversial, fascinating, and if proved right, will cost the government millions in compensation.

BSE



dying to know the truth

Groote Syndrome reduces its victims to a state akin to 'a stick insect trying to cross ice'

As part of my quest to identify the real causes of BSE I recently travelled to Groote Eylandt, a remote island located off the north-east Australian coast, to study a cluster of mysterious and fatal neuro-degenerative diseases – collectively known as Groote Syndrome – that had erupted among the Aboriginal people of the village of Angurugu.

Unmotivated murders occur on a near weekly basis in the village. Despite being officially blamed on the supposedly aggressive tendencies of Aboriginal people



when drunk, such extreme 'psychotic' behaviour is unprecedented anywhere else in the Australian Aboriginal community.

According to the Aboriginal elders of Angurugu, the problem developed in the late 1960s when a mining corporation started open-cast extraction of manganese nearby – causing a fine black dust of manganese dioxide to cloak the village.

As many as one in 30 people now living in Angurugu suffer from the neurological stages of Groote Syndrome. The symptoms are a grotesque mix of motor neurone failure, wasting and dementia, which reduce its victims to a state akin to 'a stick insect trying to cross ice'.

A fierce controversy rages over the origins of Groote Syndrome. The prevailing theory blames the emergence on an inherited mutation introduced into the Aboriginal community 300 years ago. It claims that Portuguese-Macassan sailors had interbred with Aboriginal women while visiting the island for the trepang harvest. But when I spoke to the Aboriginal elders, they adamantly denied any such inter-relationships. Furthermore, if true, why has this inherited mutation taken so many years to appear? And how, if the syndrome is an Aboriginal mutation, have white mine workers started to develop the condition as well?

Given the major holes in this theory, I wasn't surprised to discover that all the research into the

Scientific literature indicates a raft of neuro-degenerative disorders associated with manganese exposure over the years

disease so far has been performed by a team of academics whose work has been funded exclusively by the mining corporation.

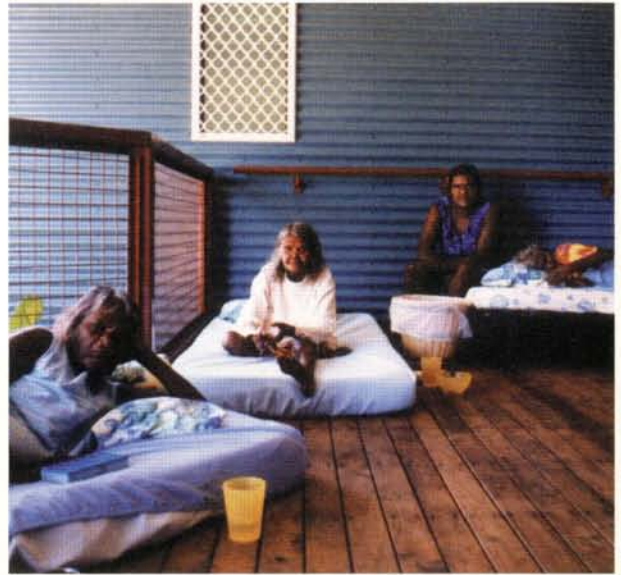
For my part, I think that the well-recognised mutagenic and neurotoxic effects of high manganese exposure could be the cause of these diseases. If this is the case, it would be possible to treat some of the early-stage victims of Groote Syndrome with a manganese-chelating compound in the hope that the disease's symptoms may be reversed. But until now, victims have not even been told of the existence of a possible cure. This is hardly surprising, since clinical success with such chelating treatment would betray the disease's true cause, and thus bankrupt the mining company. Instead current health policy is to send the victims home to die a slow, inevitable death.

The BSE connection

A terrible story, but what has it got to do with BSE in cattle herds thousands of miles away in the UK, or – for that matter – me?

I am a working dairy farmer with first-hand experience of BSE erupting in cattle that had been purchased into my organic farm. I was struck by the fact that no cases of BSE had ever emerged in cows that had been home-reared on fully converted organic farms – despite those cattle having been permitted access to feed containing the meat and bone meal (MBM) ingredient as part of their 20 per cent conventional feed allowance decreed in the organic standards.

So I embarked upon a global trek to analyse the unique environments where traditional Transmissible Spongiform Encephalopathy (TSE) had erupted in high-incidence clusters for many years. After tramping



known cluster zones in Colorado, Iceland, Slovakia, Calabria, Sardinia, Japan, et al, the results of my analysis displayed abnormally high levels of manganese and rock-bottom levels of copper, selenium and zinc in all of the food chains concerned. In adjoining disease-free areas, levels of manganese were normal.

In each cluster zone tested a specific environmental source of manganese could be pinpointed. The sources could be volcanic, acid rain, steel, glass, ceramic, dye, munitions factories, lead-free petrol refineries, the take-off airspace beyond airports, fungicide and fertiliser sprays, and so forth. In addition, the customary feeding of manganese supplements (to encourage bone and antler growth, for example) could further explain the outbreaks of TSE in cattle, humans, zoo animals, deer, mink and cats.

Scientific literature also indicates a raft of neuro-degenerative disorders associated with manganese exposure over the years. The famous South Pacific clusters of Alzheimer's, motor neurone disease and Parkinson's – the Guam Syndrome – have all erupted in areas where manganese is at excessive levels in the local environment.

From then on I became deeply sceptical of the conventional consensus on the origins of BSE and its human equivalent – variant CJD. There were just too many radical flaws blighting the hypothesis that bovine ingestion of micro doses of scrapie-contaminated MBM lead to BSE. Equally flawed was the follow-up theory that human ingestion of BSE-contaminated beef causes vCJD. (See box 'Flaws in the official theory'.)

Fighting the government

For 18 years now, I have found my work and personal integrity subjected to a steady flow of ridicule and dirty tricks. During the 1980s my farm and family became the victims of a raft of once-in-a-lifetime-type physical



disasters: arson, firearms intimidation, vandalism of my research library and communications, and infiltration by a bizarre array of bogus greens, pseudo-journalists and plain weirdos who subtly set about discrediting my social and scientific esteem. It was only when my work gained support from the likes of former minister of defence Tom King and the Prince of Wales that the physical aspects of this harassment abruptly ceased.

A recent demand from the UK government departments for my personal data revealed much of what had been going on behind the scenes.

Requests by environment minister Michael Meacher to personally meet with me had been deliberately stymied by his own officials. Other documents revealed how the British Agrochemical Association had been organising a 'joint initiative' with the Ministry of Agriculture's own grant-funding department to channel public funds into a live animal trial that had been deliberately designed to refute my theory.

Since the BSE inquiry had rejected the official scrapie-BSE hypothesis and found in favour of some aspects of my own theory, the UK government responded by setting up a further mini-inquiry to re-examine the origins of BSE. The resulting publication, known as the 'Gabriel Horn Report', employed a mix of misrepresentation and outright bogus disinformation in order to discredit the validity of my theory.

When I attempted to sue the government for libel, it pleaded 'qualified privilege' of the expert committee and then spun out the legal communications beyond the one-year post-publication mark – thereby exempting itself from my claim.

So why won't the government listen?

Regardless of the scaremongering, a basic study of the history of TSE clearly demonstrates that the disease does NOT originate from animal-to-animal contact or through ingestion of feeds contaminated with TSE brain material.

Why don't the experts consult the wisdom of the Icelandic farmers and vets who have been living and breathing with scrapie for light years. When the first symptoms of scrapie emerge in their sheep, it is customary to slaughter the animal instantly – eating the flesh (brains and all) – before the poor animal has time to waste away.

If scrapie or chronic wasting disease (CWD) can be passed on to humans via consumption – as the scientific authorities would have us believe – why have no cases of vCJD erupted in these Icelandic sheep farmers? In fact, Iceland has only ever witnessed two cases of vCJD in its entire medical history, and these victims had both hailed from the scrapie-free district in the far south of the country.

Despite the failure of repeated attempts to eradicate long-term TSE hot spot regions in Colorado

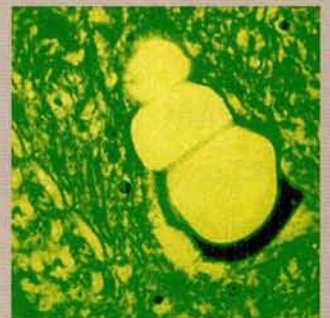
and Iceland by wholesale livestock slaughter and fallowing regimes, governments are still adopting the slaughter strategy as a first-choice means of control. But history has shown that TSE will invariably re-erupt as soon as fresh livestock are introduced back into slaughter areas.

Such extreme measures do little more than remove the superficial evidence of the disease. They merely mislead the public with the illusion that TSE has been controlled – a good vote-catching policy for any government.

For instance, the recent discovery of new clusters of TSE in US deer has led to an official over-reaction of unprecedented proportion. A wholesale slaughter policy of the deer has been enacted throughout all CWD-endemic regions across the US. While studying in Wisconsin recently, I heard the story of a deer rancher who had retained some body tissues of his TSE-affected

FLAWS IN THE HYPOTHESIS

- 1 The meat and bone meal (MBM) feed held responsible for the massive BSE epidemic in the UK has been exported (by the cargo boat-load) for cattle herds worldwide since the 1960s. Yet the majority of importing countries have not suffered a single case of BSE in their cattle herds to date.
- 2 The same is true for the cheap beef by-products blamed for causing variant CJD and which have also been exported worldwide. Only the UK and France have witnessed vCJD.
- 3 40,000 cases of BSE have erupted in UK cows born after the 1988 ban on MBM. In some BSE-endemic countries, more than half of their total BSE cases were born after their respective MBM bans.
- 4 TSE-susceptible goats and sheep were fed the same MBM ingredient, yet no cases of BSE emerged in these animals. Furthermore, animals which were never fed MBM in their feed – such as the Kudu antelope in London zoos – went down with BSE.
- 5 A government experimental farm at Liscombe on Exmoor was designed to produce beef on a pure grass and silage feed system. There were no MBM inclusions. Some of the cattle raised on this farm still developed BSE.
- 6 Not surprisingly, the UK government appeared reluctant to test its own theory. However, when several US trials attempted to reproduce BSE in cattle by feeding them with massive doses of scrapie brain material, the cattle did not develop BSE.





40,000 cases of BSE have erupted in UK cows born after the 1988 ban on the MBM feed blamed for the disease. In some BSE-endemic countries, more than half of their total BSE cases were born after their respective MBM bans.

deer, only to find himself subjected to a gunpoint raid by wildlife officials.

But who is questioning the scientific reasoning for executing this final farcical solution on these poor creatures? The policy of slaughtering a few million healthy animals across the world has been received with almost complacent acceptance. Reports pop up with ever-increasing frequency of so-called TSE precautionary control programmes – annihilation of a herd of water buffalo in Vancouver, herds of sheep culled in Vermont, thousands of scrapie-susceptible sheep herds destroyed across Europe, 400,000 cows slaughtered in Germany – all of them healthy animals.

If we can understand the cause of TSE, then we will be able to prevent, control and maybe even cure the disease. Only last month vet Terry Spraker, who oversees TSE in deer in Colorado, told me that symptoms had been reversed after treating TSE-affected deer with copper.

Unfortunately, the Establishment has no interest in the cause, prevention or cure of this grotesque disease. Its current global agenda to depopulate livestock numbers is for reasons that have nothing whatsoever to do with health risks to the human race, but more to do with envisioned profits from multinational GM proteins.

Corporations have invested billions of pounds in researching and developing their GM arable protein crops and the complementary package of pesticides to go with them.

So why would the Establishment spend any time or money investigating my peer-reviewed work when the outcome, if it proved my theories right, would cost them millions in compensation.

Mark Purdey lives and works in Somerset, England. A passionate environmentalist, Mark has spent his life investigating disease clusters and their causes. For more on Mark's fascinating work visit his website at www.markpurdey.com

SCIENTIFIC ANALYSIS

MANGANESE ON THE BRAIN: THE PROBLEM

The copper-bonded prion protein is found along the circadian mediated pathways that network deep into the brain (eg, in the retina, pineal gland, visual cortex, brain stem, serotonergic/sympathetic nerves, etc).

When copper is in short supply in the brain the prion protein's metal bonds become vacant – rendering the protein vulnerable to bonding with certain alternative metals, such as manganese, bismuth, silver or lithium.

When present, these foreign metals may not act in the overall best interests of the organism.

For instance, manganese will absorb and store up energy instead of conducting it as copper does. This blocks the flow of electromagnetic energy along the circadian pathways.

Such blockages will disrupt the balance of all circadian mediated metabolism throughout the body. This explains the clinical and pathological profiles of TSE.

METAMORPHOSED MANGANESE

One of the specific characteristics of 'trivalent' manganese is that it can absorb the energy of sound. Acute shock bursts of sound energy can actually metamorphose the atomic structure of manganese. This creates a kind of Jekyll-and-Hyde-like transformation of manganese from its normal paramagnetic form to an abnormal ferrimagnetic one – ie, from a temporary to permanently magnetised form.

Once an individual's brain is contaminated by this form of metamorphosed manganese, any subsequent exposure to external electromagnetic fields (eg, UV, radar, cell phones, etc) will permanently charge up the manganese prions.

Once the explosive threshold is exceeded, self-perpetuating 'cluster bombs' of free-radical-mediated neuro-degeneration erupt – creating the infamous spongiform lesions of TSE.

The new strain TSEs could be explained by the current trend of increased exposures to man-made pollutants involving manganese emissions, copper-chelating chemicals (ie, the warble fly and headlice insecticides), and electromagnetic radiations (UV, mobile phones, radar, infrasound, etc). These penetrate into the central nerves and give rise to the more virulent, accelerated version of TSE, where full-blown symptoms erupt in much younger mammals than normal.

PATTERN OF EMERGENCE

Rural/coastal ecosystems (where most of the BSE clusters have been found) have become increasingly exposed to a toxic combination of manganese fertilisers and fungicides, infrasound derived from turbojet aircraft, and oxidising agents such as UV, ozone or systemic crop sprays. Town environments have ironically been spared from many of these assaults. Furthermore, this geographical pattern of emergence helps to dispel the myth that vCJD arises from ingestion of TSE-affected animal products. Meat products are consumed equally by urban and rural populations alike.

The increase in oxidants relative to rural areas is partly due to the shield of smog that envelopes the majority of urban airspaces. This serves to scatter and absorb the incoming UV rays, thereby preventing the deadly UV-exhaust gas interaction with its legacy of ozone formation.

The most significant increase in the burden of artificial infrasound in the UK and France can be sourced to the overflights of the Concorde supersonic aircraft. Furthermore, all of the clusters of vCJD in rural

villages in the UK lie beneath the charter and routine flight paths of Concorde and low-flying military jet test routes. The afterburner turbofans employed by these supersonic aeroplanes radiate such a high intensity of low-frequency infrasound that a 100km-wide carpet of infrasonic shock is left in their wake – whether flying sub- or supersonically. Racing pigeons that have flown into this shock carpet have permanently lost their sense of magnetic orientation.

A New Zealand epidemiologist reported to the BSE inquiry that the most intensive clusters of BSE had always appeared on the extreme tips of the UK's copper-deficient west coast peninsulas. The well-used west coast test route for supersonic military and Concorde aircraft ran precisely over these BSE hot spots. Likewise, the infrasonic environs of Staten Island and Long Island in the US – both under the take-off flight paths of JF Kennedy Airport, where Concorde and other aircraft land – has demonstrated the highest incidence cluster of vCJD in the US.

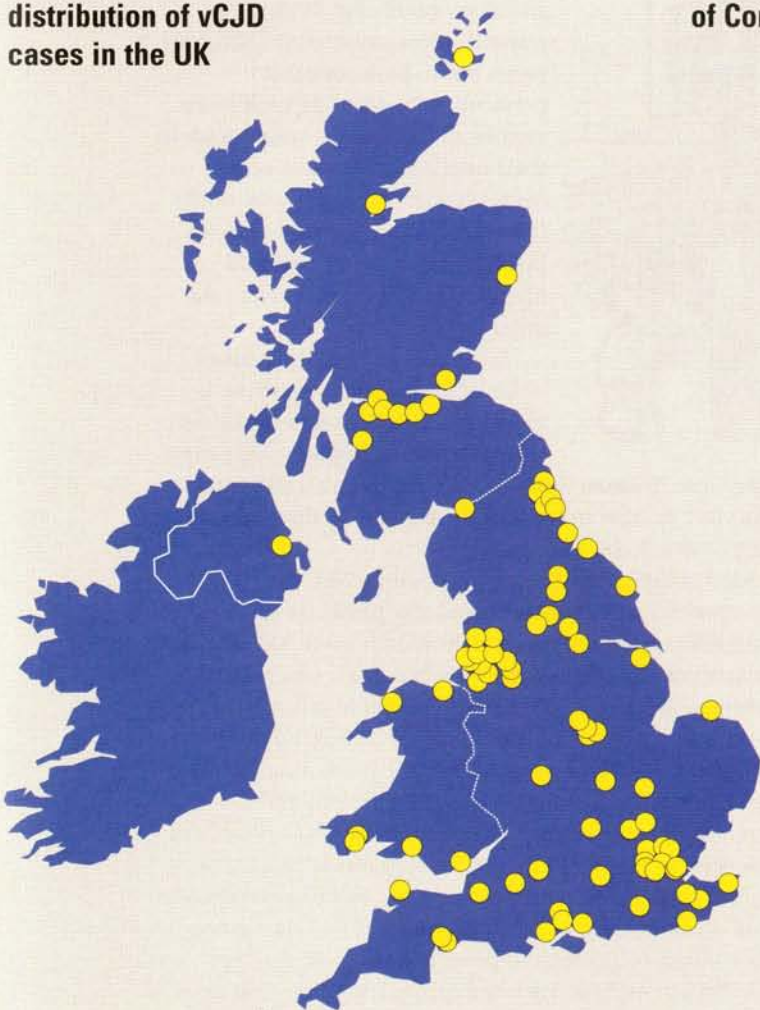
Over the last two decades, increased amounts of high-

concentration manganese oxide additive have been introduced into the bovine, human, pet and zoo animal food chains in Europe via a multitude of applications. These include free-access mineral licks, tablets, fertiliser and fungicide sprays, paints and petrol additives. Manganese is also present in trendy food products such as soya, which naturally bio-accumulate high levels of it from the soil.

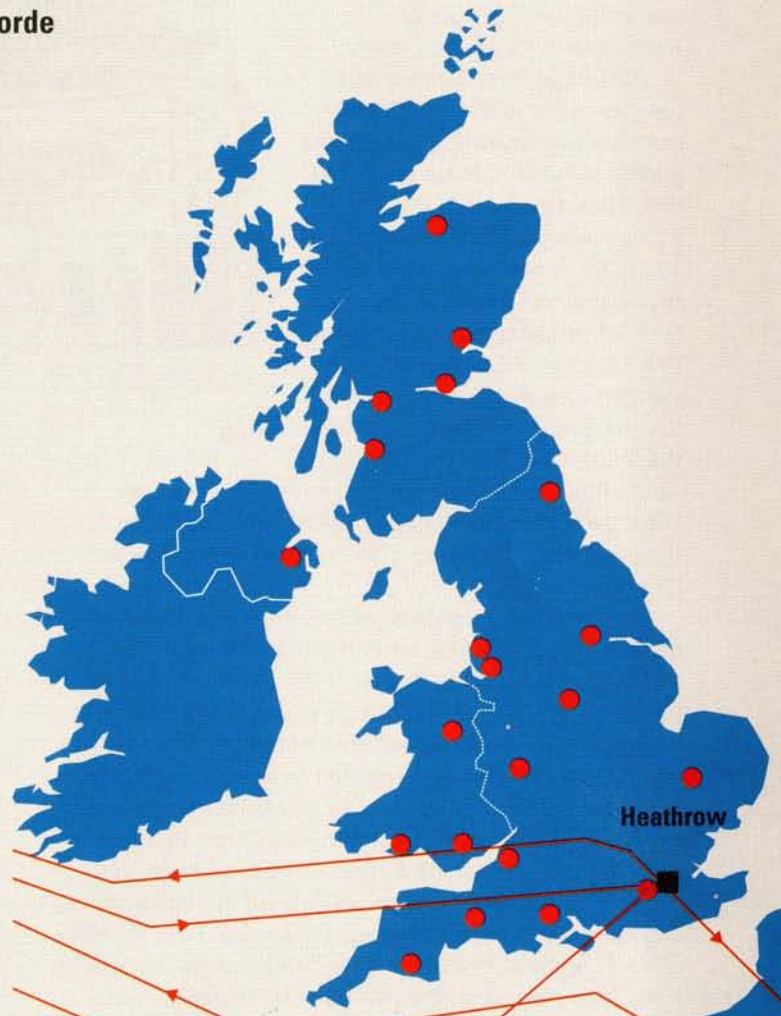
Disturbingly, manganese is added to artificial milk-substitute powders for calf and human infant consumption at levels up to 1,000 times greater than those found in normal cow and human breast milk. Excess intakes of dietary manganese pose a great risk when fed to the immature mammal, since the regulatory mechanisms of the blood-brain barrier are underdeveloped at this stage. This permits an excessive uptake of manganese and other metals into the brain.

The addition of manganese to artificial milk powders explains why dairy cattle, which were invariably reared on this milk powder, suffered such a high incidence of BSE in relation to beef suckler or organic cattle, which were invariably reared on natural cow's milk.

Geographical distribution of vCJD cases in the UK



Flight paths of Concorde



- vCJD cases
- Special charter flight destinations
- Daily commercial flight paths of Concorde



On your bike?

Globalisation sells Africans the Western dream. Immigration policies tell them they can't have it. Where, Dele Oguntimoju asks, is the sense in that?

Those of you in the West who are feeling besieged by the latest wave of immigration would do well to consider the following: people who choose to abandon the joy of every day contact with their immediate and extended families so as to live in foreign lands and take work they would not deign to do in their homelands do not do so lightly.

We in the West do not know, because we are not told, how the youth in poor African cities are being seduced by global advertising to shed their native dress in favour of blue jeans, and retune their ears from traditional hi-life music to the drum and bass of Hip Hop and Brit Pop. The sheer pressures heaped upon the poorer nations to modernise are incalculable – the techniques deployed, relentless.

And when these brainwashed townies return to their villages they carry the contaminating gadgets and gizmos with them. In no time at all their contemporaries in the village have caught the Westernisation bug. The peace of mind and contentment that they once enjoyed is disturbed. Dick Whittington-like, their sole aim in life is to go to London or Paris to see with their own eyes the streets that are paved with gold. Even now the British Council is busy across Africa, training the next generation of migrants in the language of their destination country. Only when they arrive, there is no gold. Just images of Western progress that are flawed, if not false.

As usual, the politicians are focusing their efforts on dealing with the symptoms rather than the root of the problem. One can only despair at the shallowness of the measures that Western politicians are adopting to keep at bay those who are thus wrenched from their way of life by the globalisers. Spain was reported to be spending £80m on a 350-mile 'electronic wall' across its Mediterranean coast. Not to be outdone, UK Home Secretary David Blunkett is reported to be producing a video nasty to scare off the hopeful: unsuccessful asylum seekers will be shown being deported. But how this is going to counteract the hypnotic effect of multi-billion dollar advertising campaigns remains to be seen. And what of environmental refugees – many millions, possibly hundreds of millions, of whom will be rendered destitute by the very same forces of globalisation that Mr Blunkett's government endorses?

Tougher immigration and asylum policies will not cure the problem of the 'uprooted people'. Such policies are as

misguided as the fortresses that the few over-rich in Africa build around their homes so as to keep their beggarly neighbours out. What the former fail to appreciate is that it is their monopoly on opportunity that leaves their neighbours no alternative but to come to them.

To underline the myopia of these attempted solutions to the 'immigration problem', a distinction has been drawn between asylum seekers who are fleeing political persecution and economic migrants who are just seeking a

better life. It seems not to be appreciated that those who are coming in search of a better life are being subjected to economic and psychological persecution by the global economy that is, in some respects, more unbearable than state persecution. Both forms of persecution make it impossible for victims to live as they would wish in their own countries. Loss of contentment with one's way of life is no easier for a human being to live with than loss of personal liberty. One is a closed prison, the other an open one.

It may, in any event, be asked what an 'economic migrant' is. If globalisation is the order of the day, surely economic migrants are simply

doing what Norman Tebbit once said his father did when there were no jobs in his locality: getting on their bikes and going to where the jobs are.

Most commentators have been dealing with the 'opportunities' of globalisation and the 'problems' of immigration as if they are separate and unconnected. They fail to appreciate that globalisation will bring in a new generation of immigrants, just as colonialism brought in an earlier wave.

We will get our countries back not through tighter immigration and asylum policies but by restoring opportunities to the villages and the hamlets, and preventing people being sucked into the turbines of global trade. Just as many of the Irish immigrants who were once despised in England returned home when Ireland started to boom economically, so other immigrants will start going back to their countries and potential ones will stay put when Britain and the West recognise that when God gave each nation its own land and its own means of sustenance he probably knew what he was doing.

Dele Oguntimoju is director of publicity for the Movement for National Reformation of Nigeria.



You can 'structurally adjust' an economy in a matter of years, but it takes longer to destroy a culture. Heiner Thiessen reports from Senegal on the impact of imposing a Western cash economy on a traditional African barter society.

Running on empty

The road to the public tap was long and arduous. A new tap would have saved a lot of time. Nonetheless, Ibrahima decided against the investment. With a tap of his own providing clean and instant drinking water in the privacy of his own compound, neighbours would have descended upon him to fill their plastic containers with the precious fluid – a favour Ibrahima could never decline without risking trouble. The monthly bill, however, would have been entirely his.

Achmed was poorer still, but he didn't want to be paid on a daily, weekly or even monthly basis. He wanted his money in one lump sum, which he would then hide at some friend's house, far away. The knowledge of actual cash, burning in Achmed's pocket would have

Thank you for lending us the money, but, with interest rates like that, how on Earth are we supposed to pay you back?

been too much for family and friends. Anyhow, no doors can be closed on friends and neighbours. Tomorrow you might have to do the knocking yourself.

Toure, on the other hand, accepted daily pay. His money would magically disappear at the speed of lightning.

Cashless economy

Muslim life in sub-Saharan Africa involves a constant series of financial sacrifices, which peg individuals back to their natural state of cashlessness. Frequent baptisms, marriages, births and deaths in the neighbourhood and often far-flung families demand respectable contributions. The annual cycle of religious festivals, including Ramadan, Korite and

Tabaski, also leads to extravagant expenses, creating debts for months to come. Then there is the second wife, possibly even a third or fourth family. And finally there is Mecca, or at least the annual pilgrimage to the national shrine.

With money an elusive commodity, many transactions are no more than straightforward barter. A day's labour for some fish and vegetables. I make you a dress, you cut my hair.

The individual and their credits and debts are woven into a complicated network of economic and social relationships.

In recent years, however, Senegal has been forced by the IMF to turn more and more of its agricultural land over to the production of cash crops for export. The resulting ▶





The author (far right) with villagers in eastern Senegal, inspecting newly acquired solar technology.

emergence of a modern cash economy has caused a new sense of poverty and marginalisation. Not everything can be swapped in this rapidly modernising world. Sometimes real bills have to be paid with real cash.

Unsustainable development

Babacar returns to me his torch, my present from last year. He loved it and it was very useful in a village without electricity. But now the battery has run out, and that is the end of it. Kebbe has given away my Walkman, the follow-up investment just could not be financed. Torches, Walkmen and batteries may be desirable, but at the end of the day they are not really that important. Generations have lived without them.

And what is true for Babacar's torch is also true for new roads paid for by foreign donors. It is true for splendid colonial houses left to the indigenous population after independence but now crumbling into often dangerous disrepair. And it is true for cars and buses – a UK-style MOT would wipe out 95 per cent of the entire national vehicular fleet. But most of all it is true for foreign aid: thank you very much for lending us the money, but, with interest

rates like that, how on Earth are we supposed to pay you back?

Capital gains?

Capital growth of any sort requires some degree of separation from other people – a modern African equivalent of 17th century Calvinist individualism, where personal economic fortune was interpreted as a divine blessing, as 'God's money' not only to be hoarded but to be multiplied by a Protestant work ethic.

In Senegal this would mean firmly closed doors after work and the right to say no to any financial demands from family and neighbours without the fear of suffering dire social consequences. It would mean behaving according to imported values, as opposed to time-honoured traditional norms.

Those few who have already absorbed these imported values accumulate and succeed according to the cold logic of the first world. Their grand houses – surrounded by high walls, floodlights, night-watchmen and guard dogs – are a visible expression of the 'closed door'. But for the majority of the population the traditional laws of Islam require a different pattern of social behaviour, one which includes charity and solidarity.

As a result, Senegal's domestic capital hardly grows at all, and ownership of the means of production remains largely in foreign hands. Hotels are owned by Europeans, retail outlets by the Lebanese and Mauritians and industry by post-colonial ex-pats and multinationals operating in tax-free industrial zones.

Profits don't remain where they have been accrued, but are transferred to safer havens. No amount of development aid can change this. With traditional social norms struggling to survive in the face of this rapid Westernisation, cash poverty is the sub-Saharan norm. You can structurally adjust an economy in a matter of years, but it takes longer to destroy a culture.

European economic development over the last 200 years has been the result of a unique combination of norms and values. Industrialisation was possible because of a scientific revolution, which freed the mind from ecclesiastical dogma. The Protestant reformation of 1517 provided a new work ethic, and the revolutions of 1789 set up an institutional framework for independent entrepreneurial decision making among members of the bourgeoisie free of interference from the nobility and clerical classes.

In most emerging countries, however, the process of development is supposed to work in reverse. New technology and financial aid are supposed to change social norms and behaviour over time. New gadgets are supposed to eventually erode out-dated thinking and construct new global traditions. As the economy becomes Westernised, the thinking goes, so will the way of life.

Social loss

We have to remind ourselves, as we rush to realign the entire world to our way of being, that capitalist success is based on economic exchange among strangers. In

In 2001 the IMF granted Senegal £4.7m in 'debt relief'. In the same year it collected £26m from what is one of the world's poorest countries.

our modern world of international communication and virtual relationships, there are plenty of strangers to sell to. But in localised Africa the same people I transact with are those with whom I live. Am I now to sell a loaf of bread to my needy brother?

In Africa, social acceptance flows from membership of a family network. It is a social status based on lineage, family achievement and giving and receiving among people of your own blood. It clearly exists outside of the narrow boundaries of anonymous market forces. It is a patriarchal or often matriarchal exchange system, in which a father or mother might well demand from their son-in-law the teacher's salary generated by their newly-wed daughter.

Doing business with some anonymous lowest bidder or hiring some unknown best value-for-money candidate is not only considered cold and impersonal, but downright unethical if it implies that one's own clan misses out. Business and jobs go to the family, or at least to one's own ethnic grouping. The traditional network is strengthened that way. And sinning against the laws of that family

network may well turn you into a social outcast.

We may or may not like these values, but they are socially inclusive, traditional norms, which seem to have stood the test of time and produced cohesion in all sorts of crises over the centuries. Western individualism is not only alien, but often outright astonishing to sub-Saharan Africans. Old peoples' homes, orphanages and child adoption procedures are certainly not required here. No kennels or catteries either.

Just as we may find some of the values of sub-Saharan Africans hard to accept, they cannot fathom the unfeeling logic of Western thinking, which believes in the principle of impersonal competitive markets and mercilessly yet efficiently pits one brother against another.

No wonder. In the meantime, we tell them their lives will be better when they have more money, and then devalue their currency to show that we mean it.

Heiner Thiessen is the author of *Measuring the Real World*, and spends regular time at a solar energy project on a desert island in Senegal.



ALL PICS: HEINER THIESSEN

The IMF and Senegal

In exchange for providing loans to enable Senegal to make debt repayments, the IMF required Senegal's government to introduce structural adjustment programmes (SAPs) – the first in 1986 and the second in 1995.

What the IMF SAPs imposed on Senegal

- Senegal's currency, the CFA franc, was devalued.
- Foreign imports of rice and sugar were allowed in.
- Public expenditure was cut.
- Economic activity was re-oriented towards producing for export markets.
- The requirement that companies obtain prior government authorisation before they could lay off workers during economic downturns was abolished.
- Preparations were made to privatise 18 major public enterprises.

The consequences of the IMF's SAPs

• 70 per cent of Senegal's labour force was engaged in farming prior to the intervention of the IMF. A massive increase in agricultural imports under the SAPs has undercut and driven most of these largely small farmers out of business.



• The shift to export-oriented production has undermined food security.

• Half of the food-growing land in Senegal is now growing peanuts for Western margarine firms, while production of basic food crops for local consumption, such as vegetables, corn and millet, has suffered.



• Consequently, hunger and malnutrition have risen. The percentage of the population classified as hungry rose from 33 in 1990 to 40 in 1992. While 22 per cent of children suffered from chronic malnutrition in 1992.

• New 'flexible' labour laws have driven up unemployment. In the capital, Dakar, unemployment rose from 25 per cent in 1991 to 44 per cent in 1996.

• Public expenditure reductions have forced the government to cut the healthcare budget, thus increasing disease and mortality rates. In 1988, maternal mortality was 750 per 100,000 live births. By 1993, that figure had risen to 1,200.

• Currency devaluation led to the doubling of the costs of imports such as medicine.

What does the future hold?

• All of this 'short-term' pain was supposed to have been endured so that Senegal could pay off its debts. But in an internal paper World Bank officials predicted that, despite the bank and the IMF's 'debt relief' efforts, Senegal's debt will be larger in 2018 than it is today.

• While Senegal received \$14.39m in debt 'relief' from the World Bank in 2001, in the same year it paid the bank \$29.87m in debt repayments. Similarly, while the IMF granted Senegal \$4.7m in 'relief' in 2001, it also collected \$26m from Senegal; that represents a net transfer to the IMF of \$21.3m from one of the world's poorest countries.

Reviews

November

Earthsummit.biz – the corporate takeover of sustainable development

Kenny Bruno and Joshua Karliner

Food First Books 2002

ISBN 0935028897

Reviewed by Jeremy Smith



This utterly indispensable book by Corpwatch's Kenny Bruno and Joshua Karliner conclusively debunks one of the key planks

upon which the concept of sustainable development is based. One much-touted idea at the recent Earth Summit was that the solution to global environmental problems is for the ailing UN to work together with the super-rich corporations that caused the trouble in the first place. With exhaustive research, fingers pointed in all the right directions and case studies of all the dirtiest double dealers, earthsummit.biz lays that ghost firmly to rest.

Bioregional Solutions – for living on one planet

Pooran Desai and Sue Riddlestone

Green books 2002 ISBN 1903998077

Reviewed by Harry Ram



If everyone on Earth were to live in the same way as the typical inhabitant of the UK, we would need three planets

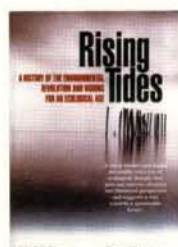
to supply the resources. The realities of our ever-increasing consumption led Desai and Riddlestone to set up the BioRegional Development Group. Their book outlines the theoretical framework of bio-regional development and offers practical solutions for reducing our CO₂ emissions and improving our recycling.

Rising Tides – a history of the environmental revolution and visions for an ecological age

Rory Spowers

Canongate 2002 ISBN 184195246X

Reviewed by Harry Ram



Spowers' excellent and accessible book presents a broad history of environmentalism and the threats the movement

faces. Where many books set out to document only the problems, *Rising Tides* interprets the world from the perspective of the green movement, and so charts not just the troubles but the responses to them, too. As such, it is an empowering read – reminding one of the wealth of resistance that there has always been, and of the scale and diversity that it has now reached.

The Earth's Biosphere

Vaclav Smil

MIT Press 2002 ISBN 0262194724

Reviewed by David Farrier



Written – the author asserts in the book's preface – to combat the growing popularity of scientific

reductionism, *The Earth's Biosphere* sets out to provide a comprehensive history and explanation of the workings of that eponymous system. Working from sub-cellular levels to the planetary, Smil want us to marvel at the mosaic of life's processes and be part of the 'growing realisation that the very survival of modern civilisation is inextricably tied to the fate of our environment, to changes in the Earth's biosphere'.

The Appeal to Reason

Edited by Craig Aaron

Seven Stories Press ISBN 1583222758

Reviewed by John Napier



Committed to honest (not objective) journalism, *In These Times* has been devoted

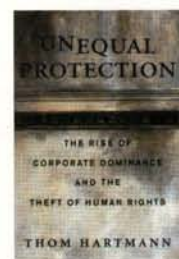
to speaking out against corporate capitalism for 25 years. Specially commissioned articles from the journal's founders and the leaders of the US pro-democracy movement share space in this volume with the selected best of past issues. Nostalgic yet forward thinking, this is a prescient tribute to liberal thought.

Unequal Protection

Thom Hartmann

Rodale Press 2002 ISBN 1579546277

Reviewed by Doug Bebb



'In the eyes of the law, since 1886, a corporate person with billions of dollars and a human person who works for a living are

entitled to equal protection under the law'. The issue of corporate personhood is one of the most far-reaching, yet least discussed matters of our time. Extensive original research and evocative narration are combined to deliver a comprehensive and engaging investigation of the history and politics behind what has emerged to be the legally sanctioned subversion of social justice and democratic values.

Blue Gold – the battle against corporate theft of the world's water

Maude Barlow and Tony Clarke

Earthscan 2002 ISBN 185383937X

Reviewed by Ann Smith



As the world worries over its ever depleting oil resources, lines are being drawn for the resource battle predicted to be one of the most threatening

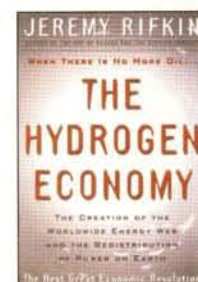
ecological, economic and political crises of this century – the scramble for water. Clarke and Barlow explain both the state of the environment and the political climate, and chart an alternative path ahead. If you want to understand what the GATS treaty will do to the world's resources, here's where to start.

The Hydrogen Economy

Jeremy Rifkin

Jeremy T Parcher 2002 ISBN 1585427936

Reviewed by Lucy Edmonds



Hydrogen is the most abundant element in the universe, and energy production is at the heart of power and control structures in

the (pyromaniac) modern world. Imagine the potential. This work envisions a future of individual empowerment in which energy is shared in peer-to-peer networks – in effect democratising the basic power structure of the fossil-based economy.

FROM THE ARCHIVES



The Ecologist
vol 21 no 4 July/August 1991

The environmental impact of the Gulf War

As the world teeters on the brink of another war with Iraq, it's worth remembering the one victim that is always forgotten – the environment. From oil fires that burned for years after the fighting had ended to the devastation inflicted on marine life, the consequences were massive, if unmentioned elsewhere. With the technological advances in weaponry over the last 10 years, it is likely that this time they could be even worse.

OBITUARY

'The father of ecology'

The more Eugene Odum (1913-2002) thought about ecosystems, the more he was convinced that there should be a way to study how one part affects another. Yet this was in a day when there were no computers. Only crude tools were available to understand how biological and physical systems interacted. With the single-minded determination that became the hallmark of his method, Odum set about creating a discipline that took a revolutionary view of how ecosystems worked.

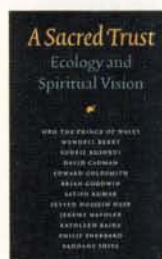
His book *Fundamentals of Ecology* was, for an astonishing 10 years, the only textbook available worldwide on ecosystem ecology. Odum argued that ecology was not a sub-division of biology or anything else. Instead, he said it should be an integrated discipline that brings all of the sciences together instead of breaking them apart.



A Sacred Trust – ecology and spiritual vision

Edited by David Cadman and John Carey
Temenos 2002 ISBN 0954031113

Reviewed by Jeremy Smith



These essays come from wide a range of ecological thinkers, including Vandana Shiva, Brian Goodwin, Edward Goldsmith and

Wendell Berry. They share the belief that to solve the current ecological crisis, we must look to the world's sacred traditions and rediscover, as the Prince of Wales writes in his preface, the 'balance and harmony that lies hidden and waiting to be found again'.

Invisible Giant – Cargill and its transnational strategies

Brewster Kneen
Pluto Press 2002 ISBN 0745319580

Reviewed by Harry Ram



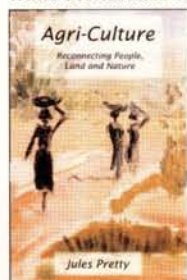
You may not have heard of Cargill, but you have eaten its products. The largest private corporation in the US, Cargill produces and trades in the staples of our diet – flour, grains, malt, cotton, salt, vegetable oils, fruit juices, animal feeds and meat. In this revised edition, Kneen shows how Cargill shapes policy, eliminates competition and reaped in \$49.4bn in 2001.

Agri-Culture – reconnecting people, land and nature

Jules Pretty
Earthscan 2002 ISBN 1853839256

Reviewed by Jeremy Smith

Pretty, who is professor of Environment and Society at the university of Essex, calls for a trans-formation of agriculture



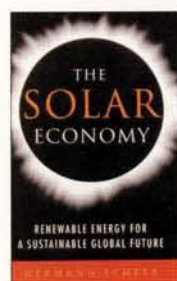
into a system based on ecological principles, one which is in harmony with the cultures it serves. Filled with successful

examples from across the world, *Agri-Culture* calls for a radical reform of the institutions and policies that control our food.

The Solar Economy

Hermann Scheer
Earthscan 2002 ISBN 1853838357

Reviewed by Lucy Edmonds

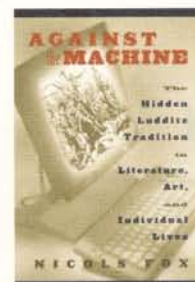


Does the global economy produce enough to go round? Examining the entire supply chain for fossil fuel energy, Scheer reveals that the claim that it is more efficient than renewable energy is a myth. This book proposes a well-planned alternative that is economically viable and sustainable.

Against the Machine – the hidden Luddite tradition in literature, art and individual lives

Nicols Fox
Island Press 2002 ISBN 1559638605

Reviewed by Jeremy Smith



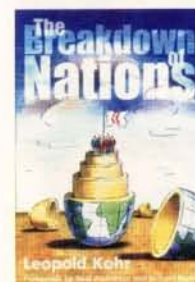
Luddism is alive in anyone who has ever sworn at their computer, cursed their telephone or questioned the merits of a technological advance. For Fox, it is also alive in the work of many of our greatest authors. Fox's re-readings of Byron, Shelley, Forster and William Morris, to name a few, reveal the much-neglected depths of literary resistance to industrial mechanisation, and may make you wonder where such artistic endeavour is now. In these technology obsessed times, this is a much needed antidote.

SEMINAL BOOK

The Breakdown of Nations

Leopold Kohr (originally publ. 1957)
Green Books 2001 1870098986

Reviewed by Doug Bebb



Kohr argues that virtually all our political and social problems would be greatly diminished if the world's major countries were to dissolve into the smaller states from which they sprang. Throughout history, he says, people who have lived in small states have fared better and had more rewarding lives. Although written 50 years ago, his book could not be more relevant in today's increasingly centralising world. Kohr persuasively argues that rather than making ever larger political unions in the mistaken belief that this will bring peace and security, we should minimise the centralisation of power by returning to a multitude of small states, where leaders are accessible and responsive to their people.

INTRODUCING...

Nuclear

Compiled by John Napier

- By 1970 everyone on the planet had plutonium and strontium in their bodies.
- 2 million gallons of radioactive liquid are discharged from Sellafield every day.
- Leukaemia incidence in the Sellafield area is 10 times the national average.

WEBSITES

www.cnduk.org.uk – The Campaign for Nuclear Disarmament

www.greenpeace.org/~nuclear/bnfl – Greenpeace on British Nuclear Fuels

www.stad.ie/news.html – The news pages of the Stop THORP Alliance

www.nuclearfiles.org – Issues, history, essays and resources

www.stophinkley.org – Find out what the UK anti-nuclear movement is up to

www.skullvalleygoshutes.org – The US campaign against Yucca Mountain and Skull Valley

www.antenna.nl/wise – The Worldwide Information Service on Energy

www.llrc.org – Researching the effects of low-level radiation

BOOKS

Wings of Death – nuclear pollution and human health; Chris Busby; Green Audit; ISBN 1897761031

The Woman Who Knew Too Much – Alice Stewart and the secrets of radiation; Gayle Green; University of Michigan Press; ISBN 0472087835

Open Secrets; Israel Shashank, Christopher Hitchens; Pluto Press; ISBN 0745311512

Life Exposed: biological citizens after Chernobyl; Adriana Petryna; Princeton University Press; ISBN 069103019X

Sixty Years of Nuclear History; Fred Roberts; Jon Carpenter; ISBN 1897766483

The Curve of Binding Energy; John McPhee; Noonday Press; ISBN 037451598

The Spread of Nuclear Weapons – a debate renewed; Scott Douglas Sagan, Kenneth Neal Waltz; WW Norton & Co; ISBN 0393977417

Atomic Audit; Edited by Stephen I Schwart; Brookings Institution; ISBN 0815777736

The Unfinished 20th Century; Jonathan Schell; Verso; ISBN 059847803

Double or Quits; Malcolm C Grimston, Peter Beck; Earthscan; ISBN 1853839132

Consume with care

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Mother's the word

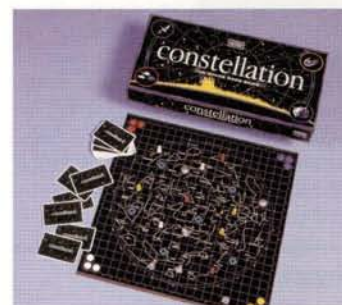
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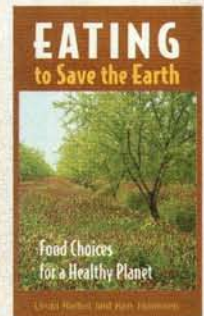
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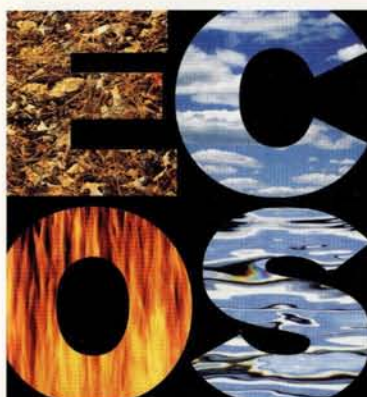
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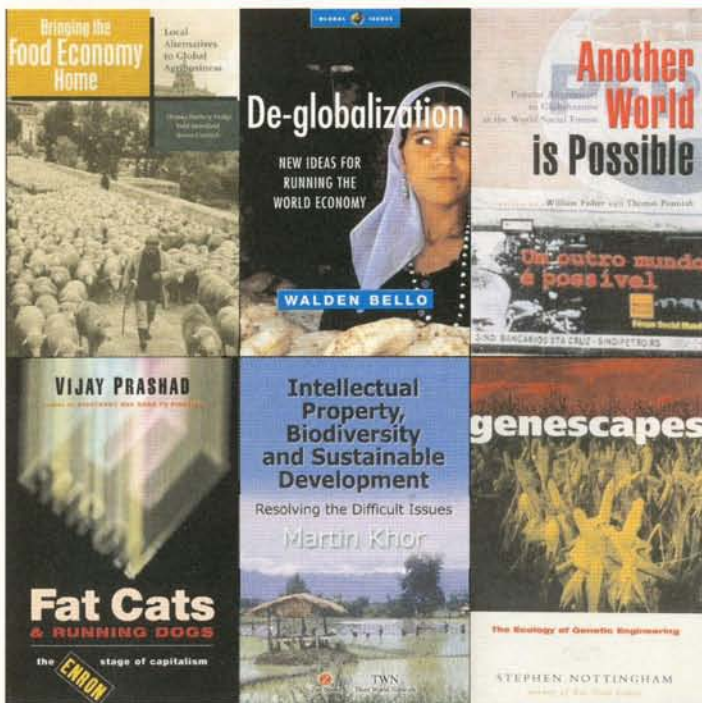
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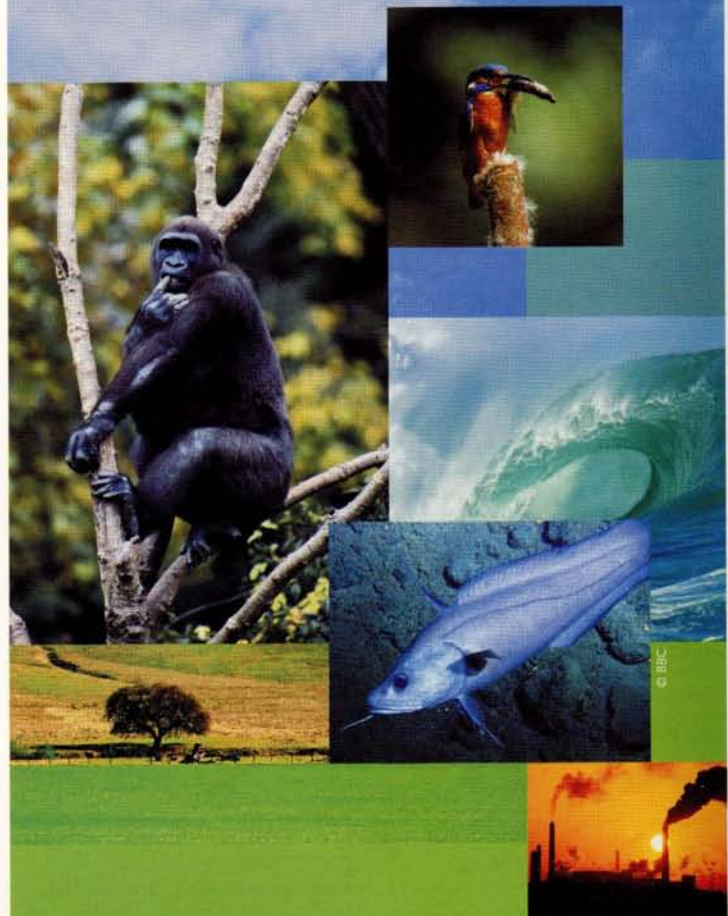
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NOVEMBER

1 NOVEMBER, LONDON, UK

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2-3 NOVEMBER, WARWICK, UK

Shared Planet 2002 - Blink and you'll miss it. An event to open your eyes to the most important issues on earth. Speakers: Mark Thomas, Caroline Lucas MEP and George Monbiot. A People and Planet event hosted by Warwick University. Visit: www.peopleandplanet.org/sharedplanet

2-3 NOVEMBER, LONDON, UK

The Politics of Meaning. A visionary and radical Rabbi, Michael Lerner is coming to London to lead an exciting weekend gathering on the urgent need to marry politics and spirit. Contact: 020 7264 1123. Visit: www.spiritmatters.info

3 NOVEMBER, LONDON, UK

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3-15 NOVEMBER, SANTIAGO, CHILE

CITES Conference. Convention on International Trade in Endangered Species of Wild Fauna and Flora. The 12th meeting of the parties. Email: cites@unep.ch Visit: www.cites.org

4 NOVEMBER, LONDON, UK (AND EVERY MONDAY)

Climate Vigil to protest against the US wrecking of international action to deal with climate change. North-west corner of Grosvenor Square near the US embassy. Nearest tube, Bond St. Contact: philthornhill@yahoo.com

6-7 DECEMBER, LONDON,

The World Fair. 15th annual event with around 60 stalls run by charities and ethical traders with everything anyone could want for a Christmas present with a difference. The fair is run on a non-profit basis. Admission free. Conway Hall, Red Lion Square, Central London (Holborn Tube). Contact Alex on 020 7354 4231 or visit: www.worldfair.org.uk

6 NOVEMBER, LONDON, UK (AND EVERY WEDNESDAY)

Vigil to stop the torture of Kalahari Bushmen Opposite Botswana High Commission, 6 Stratford Place 10am-4pm. Contact 020 7687 8700 or is@survival-international.org

6-10 NOVEMBER, FLORENCE, ITALY

The European Social Forum Conference is the first continental European meeting, following the World Social Forum in Porto Alegre, Brazil. A democratic debate of ideas, formulation of proposals and free exchange of experiences. Tens of thousands of campaign groups are expected. For more details and to register a workshop, go to www.fse-esf.org

War on Want will be organising transport to the conference. For more information, contact Nick Dearden on 020 7620 1111 or visit: www.mobilise.org

No Sweat, the UK campaign against sweatshops is running a cheapish coach to the European Social Forum in Florence. Bus leaves from Euston. 07904 431 959 www.nosweat.org.uk

6 NOVEMBER, LONDON, UK

Fundraising lecture for Friends of Conservation's 20th Anniversary. Discussion on worldwide conservation and the rapid decline in lion numbers across Africa. Tickets: £15 for lecture only and £20 for lecture and reception. Send cheques (made out to FOC) to: Nathalie Nickson, FOC, 16-18 Denbigh Street, London SW1V 2ER.

7 NOVEMBER, RUGBY, UK

Fluoridation: why you should say no. Founding meeting of Rugby Fluoride Concern. To be held at Lawrence Road School, Church Street. Speaker: Jane Jones, campaign director, National Pure Water Association. US environmental writer George Glasser will also be in attendance. Time 7.30pm. Free admission. Donations welcomed. Contact: jane@npwa.freereserve.co.uk

7-8 NOVEMBER, GLASGOW, SCOTLAND

Time Banks UK Conference. Spending Time Changing Lives. Using time banks to involve people as equal participants in regeneration, health, learning and in building communities. Contact: 0141 943 2148. Email: events@attitudeconsulting.com

9-10 NOVEMBER 2002, WESTCLIFFE ON SEA, UK

Thames Area Permaculture Teachers Network Meeting. Perfect opportunity for folks involved in the Permaculture Diploma in the London area to get together and

get/give some supervision/support. Email: grahamburnett@blueyonder.co.uk Contact: 01702 303259. Visit: www.landandliberty.co.uk

10 NOVEMBER, LONDON, UK

Knowledge: common heritage, not private property. A discussion meeting organised by Scientists for Global Responsibility with Dr Nicholas Maxwell, Dr Mae Wan Ho and Dr Philip Webber. University of London Union, Malet St, London. 2-5.15pm. Tickets £6 or £12. more details on: www.sgr.org.uk/SciencePolicy/Knowledge10Nov.html

11 NOVEMBER, LONDON, UK

New Economics foundation presents 'Anti-Apathy' at the Spitz. A multi-media event including open-floor discussion and music. This month's evening centres on **Cultural Diversity or Global Monoculture?** 7.30pm at The Spitz in Spitalfields Market, 109 Commercial St, London E1. For more information, contact cyndi@rhoades.com Tickets £5 adv/£6 on door. Call 08700 600 100, or go to www.ticketweb.co.uk

11-17 NOVEMBER, POWYS, UK

Green Energy Systems and Water Treatment, Conservation & Recycling. Two separate three-day courses offered by the Centre for Alternative Technology. The first looking at the different renewable energy options for the domestic situation, the second covering rainwater recycling, water conservation measures and purification using non-chemical methods. Cost from £125-£250. Held at Machynlleth, Powys SY20 9AZ. Call 01654 705981. Email: courses@cat.org.uk Visit: www.cat.org.uk

14-16 NOVEMBER SUSSEX, UK

Botanic Gardens Education Network Annual Conference, Royal Botanical Gardens, Wakehurst Place. Contact Erica Bower on (tel/fax) 020 8241 8915 or erica_bgen@hotmail.com

14 NOVEMBER, LONDON, UK

Conservation in the Americas: from the north cascades to Brazil's Pantanal with Dr Ralph Riley, Conservation Field Director, Earthwatch Institute, USA, and Don Eaton, University of Nevada, Reno. Free admission, but by ticket only. Tel: 01865 318856.

21 NOVEMBER, LONDON, UK

Climate Change Conference: the UK and Bangladesh. Speakers include James Cameron, Pooran Desai, Saleemul Huq and Dr Chris West. 1.30-5.00pm at Nottingham Law School. Email info@elflaw.org

22 NOVEMBER, EDINBURGH, UK

Lecture on Slow Activism, the intimate performance of social practice art. Wallace Heim Centre for Human Ecology; 6pm at 12 Roseneath Place, Edinburgh, Scotland EH1 1YG. Tickets are £3.50. To attend, please phone 0131 624 1972 or email: info@che.ac.uk Website: www.che.ac.uk

22-24 NOVEMBER,

BUCKINGHAMSHIRE, UK

Course on Self-build Solar Hot Water by the Low-Impact Living Initiative. For more information, tel/fax: 01296 714184 or visit: www.lowimpact.org

23 NOVEMBER, LONDON, UK

Sweatshop Labour and International Solidarity Conference organised by No Sweat, the UK campaign against sweatshops. Tel: 07904 431 959; email: admin@nosweat.org.uk or visit: www.nosweat.org.uk

25-26 NOVEMBER, LONDON, UK

World Food and Farming Congress, Olympia Conference Centre, Kensington. Visit: Info@wffc.co.uk

27 NOVEMBER, BRISTOL, UK

Public meeting on the current emergency in Colombia; 7.30pm, Cube Cinema, Dove St South, BS2 8JB.

29 NOVEMBER, LONDON, UK

Monthly Critical Mass Bike Ride around London, meet at 6pm under Waterloo Bridge on the South Bank, next to the NFT bar, for the bike ride around London to demonstrate an alternative to car culture. Go to: www.critical-mass.org

29 NOVEMBER 2002

Buy Nothing Day challenges consumer culture by asking us to switch off from shopping for a day. It is a global stand-off from such desires - celebrated as a holiday by some, a street party by others. Anyone can take part provided they spend a day without spending! More details on www.buynothingday.co.uk



For further information visit: www.theecologist.org

An Ideal Counterbalance to a Volatile Equity Portfolio

For many years the wealthy and powerful have owned woodland. However about 20 years ago a few forward looking insurance companies and pension funds started investing in forestry. As a result, economists began evaluating timber in terms of total returns and risk reward ratios. Research shows that forestry would have return 13.3% annually over the past 40 years, compared with 11.6% from the Standard & Poors 500.



Since the early 1990's, The **QUADRIS** Group has pioneered investment in commercial sustainable hardwood forestry. Their activities currently span 3 continents, with investment in approximately 35,000 hectares of land. This has resulted in assets under their management now exceeding US\$250,000,000.

Specialist Management

QUADRIS employ fund managers who not only have financial expertise and experience, but are also experts in the field of forestry management. This enables them to provide investors with commercial returns which match or exceed other forms of investment, whilst ensuring the fund's environmental and socially responsible integrity. This ensures that all the criteria of managing this specialist investment are addressed.

Accountability

The challenge for **QUADRIS** Group is to ensure that the investments in which it participates meet its strict criteria. This is achieved by requiring all forestry operations to be certified by the Forest Stewardship Council (FSC). To verify that these standards are met, all plantations are subject to a continuous monitoring and audit programme. This is carried out by SGS (Forestry) based in Oxford, the specialist division of the world's largest independent data monitoring and research organisation.

Real Prices

Since 1970 real prices for commodities have only risen for crude oil, gold and hardwood logs. Nearly all other commodity prices have fallen significantly in real terms over this period.

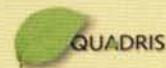
Volatility

Whilst crude oil and gold prices can be extremely volatile and are sensitive to market conditions, hardwood prices enjoy enviable long-term stability. The volatility of forestry investments is more akin to bonds than stocks and other commodities. This makes it a perfect component for a balanced portfolio, providing a hedge against the volatility of stocks and commodities.

Real Long Term Growth

One of the best reasons to invest in forestry is simply that, unlike other investments, trees grow, not only in volume but also in quality. This truly unique combination delivers a long-term return that outperforms other investments of greater volatility.

QUADRIS Environmental Fund Ltd.
Share Value Since Launch



For more details about **QUADRIS**

Contact Ian Hook on:

Tel: 01483 756800

Fax: 01483 776800

invest@quadrisc.co.uk

www.quadrisc.co.uk

Please note the value of shares can fall as well as rise and you may not get back the full amount invested.

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OBITUARY

'The father of ecology'

The more Eugene Odum (1913-2002) thought about ecosystems, the more he was convinced that there should be a way to study how one part affects another. Yet this was in a day when there were no computers. Only crude tools were available to understand how biological and physical systems interacted. With the single-minded determination that became the hallmark of his method, Odum set about creating a discipline that took a revolutionary view of how ecosystems worked.

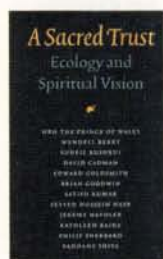
His book *Fundamentals of Ecology* was, for an astonishing 10 years, the only textbook available worldwide on ecosystem ecology. Odum argued that ecology was not a sub-division of biology or anything else. Instead, he said it should be an integrated discipline that brings all of the sciences together instead of breaking them apart.



A Sacred Trust – ecology and spiritual vision

Edited by David Cadman and John Carey
Temenos 2002 ISBN 0954031113

Reviewed by Jeremy Smith



These essays come from wide a range of ecological thinkers, including Vandana Shiva, Brian Goodwin, Edward Goldsmith and

Wendell Berry. They share the belief that to solve the current ecological crisis, we must look to the world's sacred traditions and rediscover, as the Prince of Wales writes in his preface, the 'balance and harmony that lies hidden and waiting to be found again'.

Invisible Giant – Cargill and its transnational strategies

Brewster Kneen
Pluto Press 2002 ISBN 0745319580

Reviewed by Harry Ram



You may not have heard of Cargill, but you have eaten its products. The largest private corporation in the US, Cargill produces and trades in the staples of our diet – flour, grains, malt, cotton, salt, vegetable oils, fruit juices, animal feeds and meat. In this revised edition, Kneen shows how Cargill shapes policy, eliminates competition and reaped in \$49.4bn in 2001.

Agri-Culture – reconnecting people, land and nature

Jules Pretty
Earthscan 2002 ISBN 1853839256

Reviewed by Jeremy Smith

Pretty, who is professor of Environment and Society at the university of Essex, calls for a trans-formation of agriculture



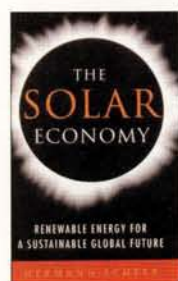
into a system based on ecological principles, one which is in harmony with the cultures it serves. Filled with successful

examples from across the world, *Agri-Culture* calls for a radical reform of the institutions and policies that control our food.

The Solar Economy

Hermann Scheer
Earthscan 2002 ISBN 1853838357

Reviewed by Lucy Edmonds

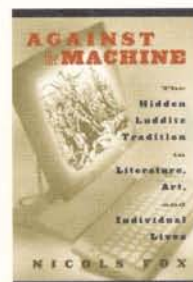


Does the global economy produce enough to go round? Examining the entire supply chain for fossil fuel energy, Scheer reveals that the claim that it is more efficient than renewable energy is a myth. This book proposes a well-planned alternative that is economically viable and sustainable.

Against the Machine – the hidden Luddite tradition in literature, art and individual lives

Nicols Fox
Island Press 2002 ISBN 1559638605

Reviewed by Jeremy Smith



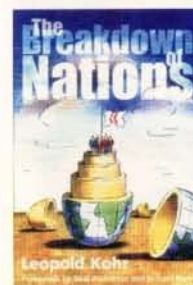
Luddism is alive in anyone who has ever sworn at their computer, cursed their telephone or questioned the merits of a technological advance. For Fox, it is also alive in the work of many of our greatest authors. Fox's re-readings of Byron, Shelley, Forster and William Morris, to name a few, reveal the much-neglected depths of literary resistance to industrial mechanisation, and may make you wonder where such artistic endeavour is now. In these technology obsessed times, this is a much needed antidote.

SEMINAL BOOK

The Breakdown of Nations

Leopold Kohr (originally publ. 1957)
Green Books 2001 1870098986

Reviewed by Doug Bebb



Kohr argues that virtually all our political and social problems would be greatly diminished if the world's major countries were to dissolve into the smaller states from which they sprang. Throughout history, he says, people who have lived in small states have fared better and had more rewarding lives. Although written 50 years ago, his book could not be more relevant in today's increasingly centralising world. Kohr persuasively argues that rather than making ever larger political unions in the mistaken belief that this will bring peace and security, we should minimise the centralisation of power by returning to a multitude of small states, where leaders are accessible and responsive to their people.

INTRODUCING...

Nuclear

Compiled by John Napier

- By 1970 everyone on the planet had plutonium and strontium in their bodies.
- 2 million gallons of radioactive liquid are discharged from Sellafield every day.
- Leukaemia incidence in the Sellafield area is 10 times the national average.

WEBSITES

www.cnduk.org.uk – The Campaign for Nuclear Disarmament

www.greenpeace.org/~nuclear/bnfl – Greenpeace on British Nuclear Fuels

www.stad.ie/news.html – The news pages of the Stop THORP Alliance

www.nuclearfiles.org – Issues, history, essays and resources

www.stophinkley.org – Find out what the UK anti-nuclear movement is up to

www.skullvalleygoshutes.org – The US campaign against Yucca Mountain and Skull Valley

www.antenna.nl/wise – The Worldwide Information Service on Energy

www.llrc.org – Researching the effects of low-level radiation

BOOKS

Wings of Death – nuclear pollution and human health; Chris Busby; Green Audit; ISBN 1897761031

The Woman Who Knew Too Much – Alice Stewart and the secrets of radiation; Gayle Green; University of Michigan Press; ISBN 0472087835

Open Secrets; Israel Shashank, Christopher Hitchens; Pluto Press; ISBN 0745311512

Life Exposed: biological citizens after Chernobyl; Adriana Petryna; Princeton University Press; ISBN 069103019X

Sixty Years of Nuclear History; Fred Roberts; Jon Carpenter; ISBN 1897766483

The Curve of Binding Energy; John McPhee; Noonday Press; ISBN 037451598

The Spread of Nuclear Weapons – a debate renewed; Scott Douglas Sagan, Kenneth Neal Waltz; WW Norton & Co; ISBN 0393977417

Atomic Audit; Edited by Stephen I Schwart; Brookings Institution; ISBN 0815777736

The Unfinished 20th Century; Jonathan Schell; Verso; ISBN 059847803

Double or Quits; Malcolm C Grimston, Peter Beck; Earthscan; ISBN 1853839132