

PLANET • PEOPLE

THE
ecologist

FEBRUARY 2003 • £3.50

~~f~~

~~r~~

~~t~~

~~a~~

~~b~~

~~e~~

~~n~~



~~l~~

~~h~~

~~s~~

g

d

—

~~m~~

~~o~~



**THEY CALL
IT TESTING.
TO HER IT'S
TORTURE**



You could help end animal testing forever

In the UK nearly three million animals suffer in laboratories every year. The BUAV opposes all animal experiments and campaigns peacefully and effectively to end them.

**Call the BUAV on
0870 902 1300
or visit
www.buav.org**

- To ask for a free copy of our *Little Book of Cruelty Free* products
- To support the BUAV with a donation
- To get active in support of our campaigns, as a BUAV *Campaigner*

British Union for the Abolition of Vivisection,
16a Crane Grove, London, N7 8NN

BUAV
campaigning to end animal experiments

Politics

REVOLVING DOORS... Backdoor Bush adds to his corporate toads **14**

SINK OR SWIM – INTERVIEW WITH MICHAEL MEACHER **16**
Meacher is, by his own reckoning, 'a lone voice in the wilderness'. How he's survived in the current government isn't clear, but what he thinks is.

MAD IN BRITAIN **21**
If Saddam's got a 'dirty bomb', it's probably because we sold him the parts.

Food

BATTERED CHICKENS... Campylobacter: storm in an eggcup? **22**

SOYA REPUBLIC **24**
As Argentina starves, a coalition of powerful groups is filling its pockets by feeding the nation on GM soya beans meant for cattle.

Society, Media & Culture

BURMA... The perfect holiday, provided you leave your conscience behind. **28**

RENT-A-MOB **30**
Unable to persuade people to buy genetically modified produce, the GM industry is trying a new tactic – fake protestors demanding access to GM technology.

WEASEL WORDS **33**
'I mean what I say. No you don't.' Paul Kingsnorth on defending the indefensible.

Nature & Resources

REST IN PEACE... Navy sonar and the plight of the Humpback Whale. **34**

BLOOD IS THICKER... **36**
Ros Coward investigates the growing ecological crisis in southern Spain, driven by cheap flights, golf, holiday villas and all year round vegetables.

WHOOPS APOCALYPSE? **41**
What do George Bush and a rare bird have in common, besides brains?

Science & Technology

CLIMATE CHANGE... revealing a CFC crisis waiting to happen. **42**

VIVISECTION – A MODERATE PROPOSAL **44**
Derrick Jensen believes we're testing the wrong animals.

Economics

BOTTLED WATER... or tap water? What's the difference? **46**

THE WILD WILD EAST **48**
They are Russia's secret marvel, a patchwork of nature unspoilt by human intervention. Not for much longer, if the World Bank has it's way.

Health

BHOPAL... Dow must be made to pay. Here are the reasons why. **52**

FALSE IDOL **54**
Alcoholism, drugs, prisons, all boost GDP. So why is it worshiped?



False Idol • page 54



Blood is thicker... • page 36



Battered chickens • page 22



Sink or swim • page 16



Rest in peace • page 34

Regulars

7 Up Front – in the news this month
Pipeline halted; Crime pays for CEOs; The ten worst corporations of 2002; Radioactive wheat; Additives affect mood; Chemical contamination; Bjorn Lomborg a fraud; Burning Bush;

12 Behind the lines of Glaxo Smithkline's latest advert

Editorial **4**

Letters **5**

GM Watch **11**

Reviews **58**

Diary dates **66**

In the next issue of *The Ecologist*:
Breast cancer lies; Mexican Biopunks; Exposing Shell; Myth of Scarcity; Nuclear protests
IN SHOPS 22 FEBRUARY

Editor Zac Goldsmith
Managing Editor Harry Ram
Deputy Editor Jeremy Smith
Sub-editor Charlie Furniss
Science Editor Peter Bunyard
Distribution Manager Belinda Bush
Marketing Manager Victoria McDougall
Art Director Peter Bishop
Publisher Ian McAuliffe
Researchers John Napier (cb), Olivia Pope, Caroline Morley, Elizabeth Gunn, Alexander Figaro, Alastair Bridge

Sales Director David Trafford
Senior Sales Caroline McLoughlin
Classified Sales Julie Riches
To advertise telephone: (020) 8962 3020

Founding Editor Edward Goldsmith

Editorial Board: Helena Norberg-Hodge, Steven Gorelick, John Page, all of ISEC.

Editorial Office: Unit 18, Chelsea Wharf, 15 Lots Road, London SW10 0QJ, UK.
Tel: +44 (0)20 7351 3578
Fax: +44 (0)20 7351 3617
Email: editorial@theecologist.org
Website: www.theecologist.org

Editorial panel:

Agriculture Vandana Shiva, Research Foundation for Science, Technology and Ecology, India
Biotechnology/GM David Suzuki, David Suzuki Foundation, Canada
Jeremy Rifkin, Foundation on Economic Trends, US
Mae-Wan Ho, Editor, Science in Society, UK
Cancer Samuel Epstein, University of Illinois, US
Corporations Russel Mokhiber, Editor Corporate Crime Reporter, US
Dams Patrick McCully, International Rivers Network, US
Development Mohammed Idris, Consumers' Association of Penang, Malaysia
GATS Agnes Bertrand, Institute for the Relocalisation of the Economy, France
Health Sally Fallon, The Weston A Price Foundation, US
Localisation Helena Norberg-Hodge, ISEC
Medical Establishment Ross Hume Hall, McMaster University, Canada
Nuclear Peter Bunyard, UK
Rainforests Marcus Colchester, World Rainforest Movement, UK
Rural Robin Page, Countryside Restoration Trust, UK
Technology Jerry Mander, International Forum on Globalization, US
Third World Martin Khor Kok Peng, Third World Network, Malaysia
US Politics Ralph Nader, Head of Public Citizen, US

Subscription rates (10 issues per year):
UK £28
Rest of world £38 / US\$59

SUBSCRIPTION HOTLINE 01795 414963

Retail Distribution:

Bookshops: Central Books,
Tel: +44 845 458 9912 Fax: +44 845 458 9925
Sasha@centralbooks.com
Newsstand: Comag Specialist
Tel: +44 1895 433800 Fax: +44 1895 433801
North America only: Disticor, www.disticor.com
Tel: +1 905 619 6565 Fax: +1 905 619 2903

The Ecologist's International Serial Number is ISSN 0261-3131. The Ecologist is a member of the Independent News Collective (INCK). Periodicals Postage Paid at Rahway, NJ. Postmaster: Send address corrections to: The Ecologist, c/o Mercury Airfreight International Ltd, 365 Blair Road, Avenel NJ 07001.

All information correct at time of going to press. All rights reserved. Reproduction in whole or in part is prohibited without prior written permission of the copyright owner. No responsibility will be accepted for any errors or omissions, or comments made by writers or interviewees. Views expressed and goods advertised are not necessarily the views of, or are endorsed by, Ecosystems Ltd or Think Publishing Ltd. Printed in UK by The Friary Press.
© The Ecologist 2002.

Distorted priorities

Michael Meacher is probably the first Environment Minister to have earned the respect of the environmental movement. Depending on your own position, that can either be good or bad news. But even his opponents tend to credit him for his now well-documented willingness to tell the truth, something not normally associated with his profession.

Even so, our interview with him on pages 16 – 19 reveals truly striking differences between his position on some of today's most pressing issues and that of the government he serves.

On GM, he believes there are no good reasons for rushing ahead, despite his government's barely concealed enthusiasm for the stuff. On nuclear power, he believes we've created a problem for which there are no real solutions, despite his government's U-turn in favour of building more reactors. He is sceptical of the revolving door between big business and government, and displays none of the excitement for economic globalisation that for many characterises the current government.

Our talk with Meacher was refreshingly honest and alarming. His arguments against the nuclear industry, for instance, match the most compelling we've ever published. If he – the Minister for the Environment – can't stop the nuclear juggernaut, despite the fact that his brief includes looking after the country's nuclear waste, who can?

And his admission that the government's approach to regulating the biotech industry involves merely accepting the assurances of that industry is still more alarming. When your regulatory procedures depend fundamentally on the honesty of the regulated, and when the 'regulated' include some of the world's biggest and most powerful corporations, you know

you're in trouble.

Judging by his expression, Meacher knows we're in trouble, and the implications overwhelm him. How on Earth do you police what amounts to a continuous avalanche of new and potentially very dangerous products? Where are the resources?

In a sense he's right. The scale of the problem is vast, and will only ever be properly manageable if the precautionary principle becomes the very backbone of government policy. But it's not enough to blame lack of resources, as Meacher implies. The resources do exist. They're merely deployed elsewhere.

No one, after all, could accuse this government of being shy when it comes to imposing regulations. Ask any small business or farmer, and they'll tell you things have become more, not less, bureaucratic in recent years. Much of the new red tape derives from the European Union, but not all, and while other EU countries have been very good at minimising their impact, or even ignoring

new regulations, British governments have traditionally achieved the opposite. Nowhere is this clearer than in the so-called hygiene regulations. They very rarely have anything to do with hygiene, and if not actually designed to crush small businesses, that has certainly been their effect, which no doubt explains why they are so

often welcomed by the big operators.

You could say the government loves regulations. But only of a certain type. If you want to lend your neighbour a ram for a couple of weeks you need a doctorate in form – filling. Doing anything for that matter on a human scale, whether organising a protest or setting up a small business, usually means navigating a torrent of red tape and bureaucrats.

But if you're a giant chemical firm and



you want to release a new pesticide, you need only inform the authorities that it's safe. If you want to unleash a new genetically modified organism designed, say, to resist a certain type of pest, you need only prove that it works. Impacts on health or the environment are of little concern to those same trigger-happy regulators.

The implication is obvious: small businesses are untrustworthy and will do anything to make a quick buck, even if that means poisoning their direct neighbours. The integrity of big firms like Monsanto on the other hand is beyond question.

Like most governments, ours believes the interests of the multinationals are one and the same as the interests of ordinary people. To that end it engages in acrobatics to make sure they're happy working in Britain, and that means lowering every conceivable standard and not obstructing them with regulatory obstacles.

So while local operators, like small cheese-makers in Devon, can't keep pace with additions to the law, multinationals are having a field day, every day. Local regulation of local businesses is out of control. Global regulation of global corporations is out of the window.

That in real terms is what the WTO is all about; forcing nations to abandon any form of tariff or regulatory mechanism that might in any way jeopardise the profitability of the multinationals. Clean air acts, conservation laws, bans on dangerous chemicals, protections for domestic businesses, are all 'barriers to trade' and therefore potentially illegal. Already the mere threat of WTO action has forced a number of countries to dispose of regulatory barriers to genetically modified products, despite suspicion and often deep hostility to the stuff from their own people.

It's not a matter of lack of resources. It's a case of fundamentally distorted priorities. Today, you can force a country to accept your toxin, even if that country's scientists have ruled against it. But woe-betide you if you sell hand-bottled organic milk to your neighbour.

Hidden Sponsors

I found Stephan Woollards letter (Ecologist Dec 2002/Jan 2003) regarding hidden sponsorship and the question of ethics extremely relevant, and sadly a common occurrence within our globalised society, even in the most unlikely places.

I wonder how many people are aware that the British Beekeepers Association (BBKA) are in the habit of accepting fiscal sponsorship on behalf of agrochemical corporations for endorsing a range of 'Toxic Pesticides'...yes toxic pesticides. This is tantamount to the likes of the RSPB advocating the use of lead shot in return for financial gain.

The following corporations and their respective products are being endorsed by the BBKA: Aventis – Decis, Syngenta – Hallmark with zeon technology, FMC – Fury/Minuet, BASF – Fastac.

All the above pesticides are 'toxic' to bees – a fact which has been checked with the Pesticide Action Network (PAN,) something I am led to believe the BBKA has never looked into, as they have not answered questions in that respect.

In 2001, the BBKA was sponsored by Syngenta to the tune of £4,000 in return for endorsing Hallmark pesticide as being 'bee friendly', even though Syngenta cannot legally state this on the product label.

In the same year Syngenta sponsored the BBKA table at the national honey show and in

a press statement BBKA stated: 'BBKA education and research also aims to promote farming practices that encourage bees – both honeybees and native species – in the environment'.

In regards to ethics (eg trade with Burma etc), I have been informed that the BBKA leaves this issue upto its members, in other words a copout knowing full well that this would not be in their best interests.

Now that they are in the pockets of corporate bodies there is a chance that they will be pressurised into relaxing the '6 mile exclusion zone' around GM crops and agreeing that it is safe for beehives to be placed within this area.

At a recently rigged DEFRA conference (GM debate), 20/09/02, where only pro-gm government advisors and the like were invited, they stood firm on the 6 mile limit, however it should be interesting to see when they will acquiesce to corporate demands...

I find this hypocrisy a cause for great concern and an absolute disgrace, and in no way should the BBKA be considered an environmental group especially when they have entered into a Faustian pact with the corporations.

All questions can be emailed to, the technical committee, at their website www.bbka.uk

Paul Harty, Suffolk, UK

(Concerned beekeeper & BSc Environmental Science student)

ecologist

APPEAL FOR BACK ISSUES

One of our readers is looking for the following back issues of *The Ecologist*. If any of our readers own one or more of the relevant copies and is willing to sell them at a price to be negotiated, please do let us know.

Volume 9 No.3

Volume 10 No 8/9 (double issue)

Volume 15 No 5/6 (double issue)

Volume 19 No 6

FINES MESS

The following is a press release from English Nature, followed by an email correspondence between the organisation and *The Ecologist* November 19 2002

Farmer pleads guilty to destroying water vole habitat

In a landmark case a farmer pleaded guilty today (Monday November 18) to recklessly destroying shelter for endangered water voles on a drainage ditch running across his Wiltshire farm. It is believed to be the first successful prosecution for water vole habitat using the recently amended Wildlife and Countryside Act.

Devizes magistrates fined Charles William Butcher, 53, of Sleight Farm, Sleight near Devizes, Wiltshire £750 and awarded prosecution costs of £150 for offences under the Wildlife and Countryside Act committed in March 2001.

Butcher admitted when interviewed by Wiltshire police that he had ignored Environment Agency guidelines designed to protect water vole burrows during work to widen Crookwood water course in March last year (2001).

Under the Wildlife and Countryside Act 1981, as amended by Countryside and Rights of Way Act 2000, it is an offence to recklessly damage, destroy or obstruct access to any structure or place which water voles use for shelter or protection.

Butcher had contacted the Environment Agency for permission to dredge a drainage ditch and agreed to follow strict guidelines to work from one bank and leave 20m strips of bank untouched for water voles to seek refuge. Legal protection is given to water vole habitat because the loss of suitable habitat is the main reason for the dramatic reduction in their numbers.

English Nature is the statutory body with responsibility for protected species and offered advice and assistance to police in enforcing the provisions of the Wildlife and Countryside Act. Thanks to the hard work and dedication of Sergeant Mark Barrett, Wildlife Liaison officer for Wiltshire Police, the case was

brought to court in Devizes.

English Nature's mammal expert, Tony Mitchell Jones, said: 'We don't want to stop work taking place on farms. All it needs is a small change to working practices to ensure the survival of this seriously threatened species, whose numbers have plummeted by 88 per cent from 7,294,000 to 875,000 between 1990 and 1998. This case sends out a clear message that landowners should follow the guidelines to help save the water vole.' Ends

*Dear Press Office
Thank you for this press release. And on the size of the fine, does English Nature consider a fine of £750 for the crime committed, sufficient?
Yours faithfully*

The Ecologist

Dear Ecologist
The magistrates 'discounted' the fine taking into account work that the farmer had done to fence off the bank from grazing cattle after he had already done the damage.

Unfortunately that will do nothing to help any water vole that may have been on the site when the damage was done, and do little to encourage them to come back to the site again. The water vole finds itself in such a perilous situation because of thoughtless actions such as those committed by Farmer Butcher.

In our view the fine does not reflect the seriousness of the environmental crime and it's not enough to deter others who might ignore the appropriate advice given by the Environment Agency in such cases.

**Heather Wilkins, Press Office
English Nature, Peterborough, UK**

Following the timely rubbishing of Bjorn Lomborg's work last month, can we now expect a spate of other high-profile anti-greens to finally get their just deserts in similar fashion?

Likewise, will the mainstream media think twice now about jumping into bed with every contrarian that comes along, just for the sake of selling a few more papers?

L Silvernorth, by email



GIVING THE BIRD

You give a precious page over to mourn the disappearance, in England, of the house sparrow. Good riddance, say I. I am lucky to live in a sparrow-free cottage, while friends a few miles away are enraged, each summer, when the vulgar hooligans of the avian population evict from their elegantly built mud-cups the martins, whose return each spring brings joy to the heart. The villains fill the house eaves with untidy gatherings of rubbish, and keep up their irritating bawling and chattering until after sunset.

House sparrows have little to commend them. They destroy roofs where thatching remains the local cover. Years ago, when they were numerous, they were a plague to farmers. They are squat in shape, dull in plumage, fly inelegantly, cannot sing, and do not even feed the hawk named for them, who seem to prefer a diet of Blue Tits.

I have often thought I would only feel warm towards the sparrow if I were serving a long prison sentence, and such a bird took to visiting me daily through the bars of my cell.

Name and address supplied

PLANE CRAZY

I have watched the development of air transport over the past several decades with growing apprehension, and wonder when the mushrooming of airports, planes, and pollution will stop

The action that is really needed in respect of air transport is something that our Government could effect at the stroke of a pen, and would if logic came into politics., i.e a fair and equitable tax on the aviation industry.

Car fuel is taxed heavily, while fuel for aircraft is charged no tax at all. Cars are also subject to VAT, while the aviation industry pays no VAT at all, despite 80 per cent of aircraft occupancy being purely for recreational reasons (a luxury).

Trying indefinitely to expand air travel is just digging a big hole into which the future will drop an enormous clean-up bill. As with radioactive waste, we should ask whether we have to leave the costs of this for our children to inherit. While half the world starves, we selfishly reap the unwarranted benefit of cheap holidays to destinations world-wide, and to hell with the environment.

Peter Russell, Plymouth, UK

*Please send all correspondence to Letters, The Ecologist, Unit 18, Chelsea Wharf, London SW10 0QJ, UK or email: editorial@theecologist.org
The best letter each month will receive a year's free subscription to The Ecologist. We reserve the right to edit or shorten letters where necessary.*

HEALING FOODS
Now on video!
Recipes so delicious, so good for you and so easy-to-follow that you'll love them

JUST £10 each Plus P&GP

As head chef and dietary adviser to the world famous Bristol Cancer Help Centre, Jane Sen has all the inside tips on healthy cooking. Her approach to healthy eating is refreshingly straightforward - "Simplicity and variety is the key - there's nothing complicated about delicious, healthy food."

The recipes and information on these videos will guide and inspire you. Once Jane has helped you to master the basics, there is nothing to stop you creating your own culinary masterpieces. Full of taste and goodness and bursting with flavour, Jane's recipes will help you if you have a health concern, want to improve your diet, or just enjoy good

24 hour orderline: 0117 980 9522 Online ordering:

Registered Office: CanHelpNow Limited, Grove House, Cornwallis Grove, Clifton, Bristol BS8 4PG Registered No: 3983263



'There's no such thing as legacies. At least, there is a legacy, but I'll never see it.' George W. Bush, January 31, 2001

RUSSIA Environmentalists in Russia and around the world welcomed the postponement of plans for a massive pipeline project that was to be built by Russian oil companies Yukos and Transneft. If built according to the original plan, the pipeline would have cut through Siberia's Tunka National Park, before going on to its final destination of China. Russia's Natural Resources Ministry halted the project on the grounds that it poses a risk to environmentally sensitive areas near Lake Baikal.

The US-based organisation Pacific Environment and their partner groups in the Baikal region have been highly critical of the project from the beginning. An international letter-writing campaign spearheaded by Global Response recently flooded the Russian government with hundreds of letters, faxes, and e-mails.

'This development is a god-send in the short-term, and it certainly buys time for the Tunka,' said David Gordon of Pacific Environment. 'But there's a strong need to keep the pressure on the Ministry of Natural Resources, and to keep those letters flowing. The project is by no means gone and forgotten; rather, they're going back to the drawing board. And we now understand that there are proposals to move the boundaries of the park for the pipeline, which wouldn't change the fact that we're still talking about a sensitive ecosystem.'

Tunka National Park comprises nearly three million acres of pristine forest ecosystem, over 200 mineral springs, and traditional communities of Buryat, Soyot and Evenk peoples. Adjacent Lake Baikal is the deepest lake in the world and holds 20 per cent of the world's freshwater.

To find out more www.pacificenvironment.org

UK Air pollution in the UK kills 10 times more people than road accidents every year. According to official estimates, up to 24,000 deaths a year are caused by 'peak' air pollution episodes. But a new report by the National Society for Clean Air (NSCA) claims that new evidence suggests long-term exposure to everyday levels of

pollution may increase heart diseases. Furthermore, initial estimates reckon around 4,000 lung cancer deaths a year are caused in the UK due to airborne particles.

Contact the NSCA on 01273 878770 or go to its website www.nsca.org.uk

US CEO's of companies under investigation for accounting irregularities earned 70 per cent more between 1999-2001 than the average CEO at a large company. According to a new report by United for a Fair Economy, the CEOs of 23 large companies under investigation earned on average \$62 million from 1999 to 2001, compared to an average of \$36m for all CEOs.

The report, *Executive Excess 2002: CEOs Cook the Books, skewer the rest of us*, found that between 1999-2001, the CEOs at firms under investigation took home \$1.4 billion between them. By contrast, between January 1, 2000 and July 21, 2002 shares in these same companies lost \$530bn, about 73 per cent of their value.

The companies looked at in the report were Adelphia, AOL Time Warner, Bristol Myers Squibb, CMS Energy, Duke Energy, Dynegy, El Paso, Enron, Global Crossing, Halliburton, Hanover Compressor, HomeStore, Kmart, Lucent Technologies, Mirant, Network Associates, Peregrine Systems, PNC Financial Services, Reliant Energy, Qwest, Tyco, WorldCom, and Xerox.

Download the report at www.ufenet.org/press/2002/EE2002.pdf

US The second largest district in the US has implemented a Least Toxic, Low Risk pest management policy in its schools. The California Safe Schools Coalition worked with Los Angeles Unified School District to adopt the precautionary principle when dealing with pesticides. Its methods and policies are available on the web at www.calisafe.org.

'The policy mandates the use of preventative measures and least toxic methods first in schools,' explained Robina Suwol, executive director of CSS. 'Only when preventative measures fail does the district turn to pesticides on the approved list. Pesticides on the list cannot contain products known to cause cancer, neurological disruption, birth defects, genetic alteration, reproductive harm, immune system dysfunction, endocrine disruption, or acute poisoning, which stops the routine use of the most hazardous pesticides in our schools.'

For more information contact Robina Suwol on +01 818-785-5515 or email her at schoolipm@yahoo.com



BRAZIL The Guarani-Kaiowa indians are finally winning back their land, stolen by ranchers in the 1950s. The ranchers had gone to court to prevent the indians claiming their territory, but the judges found in favour of the indians. One judge ordered official demarcation of the area as indian land, while another ruled the ranchers had no basis on which to claim the land.

For decades the 400 remaining Guarani had been crammed onto just nine hectares of land. Now the judges have ordered that an area of 9,300 hectares be marked out as theirs.

For more on this and other indigenous rights campaigns www.survival-international.org

NETHERLANDS Air tickets would cost 20-30 per cent more for short flights and five per cent more for long haul if the cost of emissions and noise were included in the price. *External Costs of Aviation*, a study by the Dutch Centre for Energy Conservation and Environmental Technology, also found that if 'contrails' are formed, as is estimated to occur in 10 per cent of air miles travelled, the effects on the climate could be up to 8 times higher.

For a summary of the study go to www.umweltbundesamt.de/aviation.pdf

To offset the environmental costs of your flight, go to www.futureforests.com

“ The chief UN weapons inspector **ORDERED** his monitors to leave Baghdad today after saying that Iraq had once again reneged on its promise to cooperate – a report that renewed the threat of US and British airstrikes. ”

Associated Press, 1998

but...

“ Information on Iraq's programs has been spotty since Saddam **EXPULSED** UN weapons inspectors in 1998. ”

Associated Press, 2002

“ The goals for this country are peace in the world. And the goals for this country are a compassionate American for every single citizen. That compassion is found in the hearts and souls of the American citizens. ”

George W Bush

Washington December 19, 2002

“ There's only one person who hugs the mothers and the widows, the wives and the kids upon the death of their loved one. Others hug but having committed the troops, I've got an additional responsibility to hug and that's me and I know what it's like. ”

George W Bush

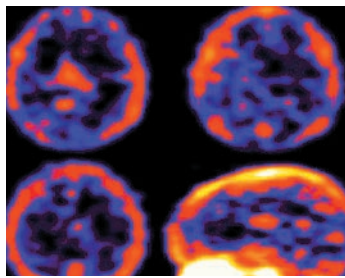
December 11, 2002.

“ In other words, I don't think people ought to be compelled to make the decision which they think is best for their family. ”

George W Bush, on smallpox vaccinations, December 11, 2002

“ Dense overgrown forests and rangelands have grown like a cancer. They need to be treated. ”

**Interior Secretary Gale Norton
December 12, 2002.**



EU The World Trade Organisation is ruining efforts to improve animal welfare within the European Union, according to campaigners. The WTO insists that free trade must take precedence over animal welfare legislation and that the EU cannot ban imports on ethical grounds. This results in a situation where the EU can ban cruel practices in Europe, but cannot ban the import of meat or eggs reared cruelly elsewhere. As a result, claims a report by Compassion in World Farming and the European Coalition for Farm Animals, farmers in Europe are being undercut by cheap, cruelly produced imports.

For more info go to www.ciwf.org

WORLD – Two-thirds of people do not believe their country is ‘governed by the will of the people’, according to a recent poll.

Other findings include:

- Across the world, the principal democratic institution in each country (eg parliament, congress, etc) is the least trusted of the 17 institutions tested.

- Global companies and large domestic companies are equally distrusted to operate in the best interests of society, ranking next to national legislative bodies at the bottom of the trust ratings.

- Non-governmental organizations (NGOs), including environmental and social advocacy groups, enjoy the second highest trust ratings in the survey.

36,000 people were asked to rate their level of trust in whether 17 different institutions operate in the best interest of society.

Full results of the survey can be downloaded from the World Economic Forum's website at <http://www.weforum.org/trustsurvey>.

US A US company is scanning volunteers' brains in order to record their subconscious thoughts about various products and advertisements. Known as Neuro-marketing, ‘what it really does,’ according to Adam Koval, an executive with Brighthouse Institute for Thought Sciences, ‘is give unprecedented insight into the consumer mind. And it will actually result in higher product sales or brand preference or in getting customers to behave the way they want them to behave.’

Asked which companies were interested in using the technology, Koval is more evasive. ‘We can't actually talk about the specific names of the companies, but they are global consumer product companies...Right now they would rather not be exposed. We have been kind of running under the radar with a lot of the breakthrough technology.’

The Brighthouse Institute's website is <http://www.thoughtsciences.com>

ANDERSEN – for shredding documents relating to the Enron case

BRITISH AMERICAN TOBACCO – for claiming to be socially responsible, while working in Burma, denying passive smoking causes harm, and opposing bans on tobacco advertising.

CATERPILLAR – for continuing to sell bulldozers to the Israeli Defence Force, which uses them to demolish Palestinian homes, sometimes with the residents still inside.

CITIGROUP – for financing ‘environmentally unsound and destructive projects such as Peru's Camisea pipeline and Ecuador's controversial OCP pipeline’.

DYNACORP – for spraying herbicides on coca crops in Colombia, which farmers allege are killing their legal crops and exposing them to dangerous toxins. Or as the lawsuit against the company claims: “nothing less than an act of mercenary war was carried out surreptitiously by the DynCorp defendants in total defiance of international law’.

M&M/MARS – for profiting from child slave labour in the production of cocoa used in its chocolate products and rejecting a proposal to purchase five per cent of its product from Fair Trade producers.’

PROCTOR & GAMBLE – for refusing to support the International Coffee Organisation's scheme to save the livelihoods of 25 million impoverished coffee farmers by boosting the price of coffee, which has fallen 50 per cent in the last three years to a 50-year low.

SCHERING PLOUGH – for price-fixing(allegedly), repackaging drugs at higher prices(allegedly), importing unapproved ingredients(allegedly), and for failing to fix problems in manufacturing dozens of drugs at four of its facilities in New Jersey and Puerto Rico, for which the company announced it will pay a \$500 million settlement, shattering the previous record of \$100m.

SHELL OIL – for spending millions of dollars to create the impression that it is a socially and environmentally responsible oil company, while continuing to pollute the planet.

WYETH – for promoting Hormone Replacement Therapy (HRT) for 35 years, even when its supposed benefits were unproven, and outweighed by the proven risks, such as breast cancer, heart attack, stroke and pulmonary embolism. As Cynthia Pearson, executive director of the national Women's Health Network said: ‘This is a story of the corruption of the medical and scientific community. The belief that hormones are good preventive medicine has been a triumph of marketing over science.’

For more on all these cases see *Multinational Monitor* December 2002 (www.multinationalmonitor.org)

UK The Forest Stewardship Council (FSC) has been knowingly misleading people for years, claim environment and human rights experts. In a recent report by the Rainforest Foundation, the authors claim that there are serious flaws in the FSC's certification system which is supposed to mean that product bearing the FSC logo has been produced in a socially and environmentally acceptable manner.

The report claims that the FSC's authorised auditors have a vested commercial interest in certifying timber companies, regardless of whether or not they actually comply with the FSC's strict requirements. As a result companies certified under the scheme include those that have been implicated in gross abuses of human rights, including torturing and shooting local people; and logging pristine tropical rainforest containing some of the world's most endangered wildlife species, such as the Sumatran Tiger.

'The report was given to the FSC in September, but there has been no response to it,' says Simon Counsell, the director of the Rainforest Foundation. 'Conservation groups such as the World Wide Fund for Nature (WWF) should consider whether they wish to continue being associated with an organisation that is clearly misleading the public.'

To obtain the report, contact Simon Counsell on +44 (020) 7251 6345 or email simonc@rainforestuk.com

US Two days before the Congress was due to vote on a 475-page document allowing the creation of the Department of Homeland Security someone inserted a two-paragraph clause protecting vaccine manufacturers from lawsuits brought by parents of vaccine-damaged children: specifically those made autistic by the Eli Lilly company.

The clause also exempts drug companies from claims resulting

from the huge amounts of damage which will follow from the smallpox vaccine being forced onto the American people.

At first no-one owned up and no-one complained because homeland security is 'the fight against terrorism'.

Subsequently, however, House Majority leader Dick Army stepped forth and said he did it to stop vaccine manufacturers going out of business due to increasing lawsuits. 'I did it and I'm proud of it,' he said. 'It's a matter of national security. We need their vaccines if the country is attacked with germ weapons... they asked me to do it at the White House.'

George Bush senior was on the board of Eli Lilly in the 1970s; White House budget director Mitch Daniels was an Eli Lilly exec and Eli Lilly's chief executive officer Sidney Taurel is on the Presidential Home Security Advisory Council.

Army, however, retires at end of this year.



US Last month a US town passed a law that could signify an important first step to reclaiming democracy from corporate power. The officials of Porter Township declared that, in their town, 'a corporation is a legal fiction created by the express permission of the people.'

In 2000, one of the largest sludge hauling corporations in

the US had sued Porter Township, claiming that as a 'person' the corporation had rights equal to the citizens of the township, and therefore they couldn't 'discriminate' against the corporation under the due process and equal protection clauses of the 14th Amendment, which was passed after the Civil War to free the slaves.

ROMANIA Wheat grown in Ukrainian fields poisoned by radioactive fallout from the 1986 Chernobyl nuclear disaster is being sold to unwitting Arab countries as 'Romanian-grown grain' in a scam that has made the Romanian merchants millions. Following studies showing that both Ukrainian and Moldovan wheat was still contaminated, certain Arab countries banned its import. Step forward the new entrepreneurs of Romania, as exposed recently by a member of the countries opposing party. 'Romania is a prime importer of Ukrainian and Moldovan grain,' revealed Valeriu Gheorge, 'and the two countries also use Romania for the transit of their wheat shipments to their traditional Arab markets. In the course of the transit, Ukrainian and Moldovan wheat gets relabelled 'Romanian wheat' and is then exported to foreign markets.'

For more on this story go to www.sundayherald.com/2966



US The state of Michigan has abandoned efforts to significantly ease state standards for toxic dioxin pollution that would have enabled Dow Chemical to avoid huge cleanup costs near its Midland, Michigan plant.

The proposed rule change had been negotiated by the outgoing Republican governor's Department of Environmental Quality and Dow officials. It was heavily criticised by Governor-elect Jennifer M Granholm (Democrat) and regional officials of the US Environmental Protection Agency, and was the subject of a lawsuit that had been filed by a coalition of environmental groups.

For more on Dow turn to page 52

Ads with everything

Soon the whole world will have an advert stamped on it. In recent months we have seen UK councils offering companies the chance to advertise in flower beds, and most recently police cars in the US have signed contracts to carry corporate advertising.

If any readers spot novel (or pernicious, depending on your point of view) uses of space to sell products, let us know. (editorial@theecologist.org / 0207 351 3578)

Additives do affect mood

Food additives can cause behavioural changes in young children, even those with no history of hyperactivity. The findings, by the UK's Asthma and Allergy Research Centre, are the first time a government-sponsored scientific study has corroborated the link between food colourings and preservatives and changes in children's behaviour.

For more information contact the Food Commission on 0207 837 2250, website www.foodcomm.org.uk

Waste to double by 2020

Unless urgent action is undertaken, municipal waste in England will double in volume by 2020, according to a new report from the Prime Minister's Strategy Unit. The report, 'Waste Not, Want Not' estimates that such an increase could cost £3.2 billion per year to dispose of – twice as much in real terms as is spent now to handle waste.

Way to go 'Sainsburys'

89p for a 300g tin of apricots? That's because they are part of Sainsbury's new 'Way to Five' range, with helpful advice on the label about how much of your daily recommended five fruit portions are contained within. Trouble is, Sainsbury's own label tinned apricots only cost 59p afor 411g tin (equivalent to 43p for 300g).

For more on the five a day scam go to www.foodcomm.org.uk

Warning – radioactive trees

Workers thinning forests near the Los Alamos National Laboratory in New Mexico have been ordered not to cut down trees in some areas as they might be radioactive. The first atomic bomb was built at Los Alamos in 1945 and experiments continued at the site throughout the 1940s and 50s.

Chips bad for environment

To produce one computer memory chip weighing two grammes, the total amount of fossil fuels required is 1,400 grammes, a team at the United Nations University in Tokyo has found. It also takes 72g of chemicals and 32kg of water. A car uses two times as much fossil fuels in its production, compared to 700 times for a computer chip.

Israel costs US over one trillion dollars

Since 1973, Israel has cost the US around \$1.6 trillion dollars, estimates Thomas Stauffer, a consulting economist in Washington. Israel is the largest recipient of US foreign aid. It is due to get \$2.04 billion in military assistance and \$720 million in economic aid in the 2003 financial year.

Dolphin friendly?

The Indian navy is to train dolphins to plant limpet mines onto enemy vessels, it was revealed last month. However, far from being a first, it turns out that the US navy has been using dolphins since the Sixties, in a programme that now costs \$14 million a year.

Exxon damages set at \$4bn

ExxonMobil should pay \$4 billion in punitive damages for the Exxon Valdez oil spill, an Alaskan court decided last month. However, Exxon (Esso), which is the world's largest public oil company, believes it should pay no more than \$40 million for the disaster, which took place 14 years ago.

Getting hotter

2002 was the second hottest year yet according to the World Meteorological Organisation. The 10 warmest years have all occurred since 1987, nine of them since 1990. Still, not everyone (well, Esso) believes that global warming is a reality.

Bogus health claims

Food products in the US can now carry health claims even if the supposed benefits have not been conclusively proven to be true, US regulators decided last month.

Computer turn off

Companies wasted £90 million in 2002 by failing to complete the simplest of tasks – pressing 'off' on their computers. And in the process, the PCs pumped a staggering 2.8 million extra tonnes of CO₂ into the environment.



US Chemical and biological weapons buried on abandoned and converted defence sites across the US have contaminated an area larger than Florida, Environment Protection Agency documents released by Public Employees for Environmental Responsibility (PEER) reveal. 'The true magnitude of this unfolding ecological disaster is masked by the Pentagon's unwillingness to complete a reliable inventory or adopt credible cleanup rules,' said Jeff Ruch, director of PEER. 'After inflicting the largest ecological cleanup bill in history on the American taxpayer, characteristically, no one at the Pentagon, will stand up and take responsibility for this mess.'

For more info go to <http://www.peer.org/press/292.html>

UK British Energy, the beleaguered British nuclear energy company, is in further trouble following the announcement of a new investigation into its finances. A Green Party councillor blew the whistle on Lancaster City Council's decision to postpone demands for £1.8 million in business rates owed by Heysham Head nuclear power station. Meanwhile, British Energy is losing a reported £2m a day, despite a government loan of £650 million to keep it from going bankrupt. 'British Energy is costing the UK taxpayer,' said Green MEP Caroline Lucas. 'It's time the government woke up to the fact that the nuclear industry is expensive, dangerous, and deeply unpopular. If the industry cannot stand on its own two feet it should go to the wall.'

A separate investigation is already underway into the UK Government's plans to restructure the nuclear energy industry. According to EU law, any rescue package must compensate competitors for the market distortion suffered as a result of a bail-out. As energy outstrips demand, the European Commission is likely to order the closure of one or more nuclear plants operated by British Energy. It will decide later this year whether the government's failure to itself recommend such closure renders the entire rescue package unlawful.'

UK It's not all one way traffic. Now the UK is to export its worst polluter to the US. Thames Water, which for two of the last three years has topped the list of the worst polluters in the UK, is involved in taking over community water and sewer systems across the US as part of the trend of consolidation and concentration by multinationals eager to privatise the world's water. As a case in point, Thames is also currently in negotiations to be taken over by RWE AG, the German Energy conglomerate.

Meanwhile, RWE is in the process of taking over American Water Works, the largest publicly owned US-based water company.

RWE wants Thames to run its American water operations, which is bad news for the US. In 1999 Thames was prosecuted eight times by the UK government for pollution – more than any other company. In 2000 it was fined almost £280,000 for pollution – again more than any other company in England and Wales. In one instance 22.5 million litres of waste and raw sewage was pumped into the Thames, resulting in a £250,000 fine (the highest ever) and leading the court to criticise Thames for its 'complete disregard for human health and the environment'.

Download the complete report at www.citizen.org/documents/RWE%20Profile.pdf



DENMARK Bjørn Lomborg, author of the controversial anti-green critique 'The Skeptical Environmentalist', has been found guilty of scientific dishonesty by a well-respected committee in his home country Denmark.

Lomborg came to prominence in August 2001, when the publication of his book caused great controversy within the scientific and environmental communities, in both Europe and the United States. It was favourably reviewed in much of the non-specialist media, especially *the Economist*, *the New York Times*, and *the Sunday Times*. *The Guardian* ran extended

extracts in its G2 supplement, and at the recent Earth Summit in Johannesburg, Lomborg was given a slot on BBC2 on which to expound his theories.

The Danish Committee on Scientific Dishonesty spent much of 2002 considering the evidence before concluding that Lomborg had 'clearly acted at variance with good scientific practice'.

Although the committee did not feel able to conclude that Lomborg had misled his readers deliberately, this was only because the scientists considering the case felt that Lomborg might simply have misunderstood the issues he was working on.

US A man who made a remark about a 'burning Bush' was sentenced last month to 37 months in prison for 'threatening to kill or harm the President'. Richard Humphreys was arrested in Sioux Falls in March 2001 following a barroom discussion with a truck driver. 'I said God might speak to the world through a burning Bush... I had said that before and I thought it was funny. It was propheticizing,' testified Humphreys. However, realising that President Bush was to visit Sioux Falls the next day, the bartender told police that Humphreys talked about a 'burning Bush' and the possibility of someone pouring a flammable liquid on Bush and lighting it. The jury took under an hour to find him guilty.

Biotechnology epitomises the issues and the struggles defining today's world. Corporate corruption, weak science, false claims to help the poor – GM links them all. *The Ecologist*, in association with industry watchdog the Norfolk Genetic Engineering Network, reports the key GM events and trends.

GM Propaganda

GM lies in *The Times*

UK 'GM crops could revive endangered wildlife' declared an article last month in *The Times*. It claimed GM sugar beet trials have 'revealed sharp improvements in the density of weeds, seeds and insects' without damaging crop yield, which could help revive endangered birds that depend on seeds and insects for food.

However, not only has the 'research' in question, by the Institute of Arable Crops Research (IACR), neither been peer-reviewed nor published, but, more importantly, farmers are unlikely to agree that increased weeds, weed seeds and insects are 'benefit'.

Nature confesses

UK An article in the science journal *Nature* has admitted the role of Monsanto's PR firm, Bivings, in initiating and fuelling

the attacks on scientists Quist and Chapela, who had published research in *Nature* revealing GM contamination of indigenous Mexican maize. But the article does not include the most recent evidence that their principal attacker operated directly out of Monsanto in St Louis as part of the company's guerilla PR strategy to take control of the internet and use it to destroy the credibility of its critics.

For more on Monsanto's dirty tricks campaign against its critics: <http://ngin.tripod.com/deceit07.html>

Government covers up crop trial

UK Evidence has emerged from the UK government's GM crop trials of widespread gene flow between GM crops and non-GM crops, and between GM crops and wild relatives. The investigation, conducted between

1994 and 2000 by the National Institute of Agricultural Botany and the Laboratory of the Government Chemist, indicates that GM oilseed rape cannot be grown in the UK without massively contaminating non-GM and organic rape. According to the Independent: 'The study is so devastating to the Government's case for GM crops that ministers sought to bury it by publishing the first information on it on the Department of the Environment, Food and Rural Affairs website on Christmas Eve. That is the one day in the year when no newspapers are being prepared. Even then, it only produced a heavily edited summary of the main report.'

Download the full report at <http://www.defra.gov.uk/environmet/gm/research/epg-1-5-84.htm>

GM Science & Technology

Organic yields beat GM 1

MADAGASCAR A purely organic system of rice planting claims to increase rice yield per hectare from 3.5 tonnes to as much as 8t, says the International Institute for Food and Agriculture Development.

Organic yields beat GM 2

BRAZIL In a modern trial of ancient Amazonian organic farming methods, yields on poor rainforest

soil were increased by 880 per cent over plots using modern intensive farming techniques.

BT cotton fails

INDIA In its first year of commercial planting, Monsanto's Bt cotton suffered attacks from American bollworm (the insect against which it is supposedly resistant), other sucking pests and wilt disease. It also proved to be a water guzzler, reports said.

'Superweeds' threaten US land

US An independent study says resistance to Monsanto's herbicide Roundup Ready will hit the value of farmland, wiping around 17 per cent off US land rentals. Furthermore, 46 per cent of farm managers surveyed said weed resistance to glyphosate, the active ingredient in Roundup, is now their top weed-resistance concern.

GM Food & Safety

Pig company says sorry

US The leader of ProdiGene, the company that mixed GM corn containing a pig vaccine with soybeans meant for humans, issued an apology. 'We're very sorry for the mishap and have corrected it,' said Anthony G Laos, the company's CEO and president. The Agriculture Department imposed more than \$3 million in penalties on ProdiGene's contaminated soybeans, and fined the company \$250,000.

GM food may cause cancer

UK Eating GM food could cause cancer, says Dr Stanley Ewen, a consultant histopathologist at Aberdeen Royal Infirmary. Dr Ewen says the cauliflower mosaic virus promoter used in GM foods could increase the risk of stomach and colon cancers. He is calling for the health of people living near the farm-scale GM crop trials in Scotland to be monitored.

Starlink turns up again in US corn

JAPAN Trace amounts of unapproved StarLink corn have been found in a US shipment bound for Tokyo's food supply. US Department of Agriculture officials said they were 'surprised' by the news since they believed all remaining StarLink corn was destroyed in 2001.

For more on these and other stories, and for background information and exposés of all GM issues, go to www.ngin.org.uk

Syngenta pulling out

INDIA Syngenta has pulled out of its planned collaboration with the Indira Gandhi Krishi Vishwavidyalaya (IGKV) for developing new rice hybrids from collected local germplasms held in the University's gene bank. The plan had caused a mass protest when it emerged that IGKV planned to sell off 22,972 varieties of germplasm, collected by revered scientist Dr Richharia, to Syngenta.

Syngenta is also closing its plant genome research institute in San Diego, California and is pulling out of UC Berkeley, California when its 5-year agreement with the University comes up for renewal in 2003. All this having already this year terminated its much vaunted UK research alliance with the John Innes Centre five years early.



Monsanto president resigns

US On 18 December, Monsanto announced the resignation of its president and chief executive Hendrik Verfaillie. Both Verfaillie and the board of directors agreed that 'performance during the past two years has been disappointing.' Monsanto's stock fell nearly 50 per cent in 2002.

SHARE WATCH



What did you do today dad?

More than likely he sold drugs. Of GSK's 107,899 employees, some 40,000 work in sales. GSK proudly admits that 'dad' is part of 'the largest sales force in the industry'. (1) Then again, if your dad is CEO Jean-Pierre Garnier he might say: 'I demanded £20 million to keep me motivated.' (2) But he might not have been at the office at all, in which case he was probably at United Technologies (UT), where he also sits on the board. Like GSK, UT makes important contributions to the world's health, no more so than by making military aircraft like the Blackhawk helicopter. (3)

'At GlaxoSmithKline we feel proud telling our families about the company we work for.'

The word here should be 'companies'. The 16 directors on GSK's board also make the decisions for such well known health providers as Imperial Tobacco, Cadbury Schweppes, Coca Cola, BP, Shell, Marconi, TXU, Allied Domecq, ICI, Bass and ChevronTexaco. And the more products these companies sell, the greater the demand there is for GSK's medicines. Neat. And if it needs to spin this or any other story, GSK also have the chairman of Reuters on its board, as well as a director of Saatchi and Saatchi. And for good measure, there is a senior advisor to the president of the World Bank. (4)

'We feel passionate about working for a company that is committed to finding innovative new medicines for the NHS.'

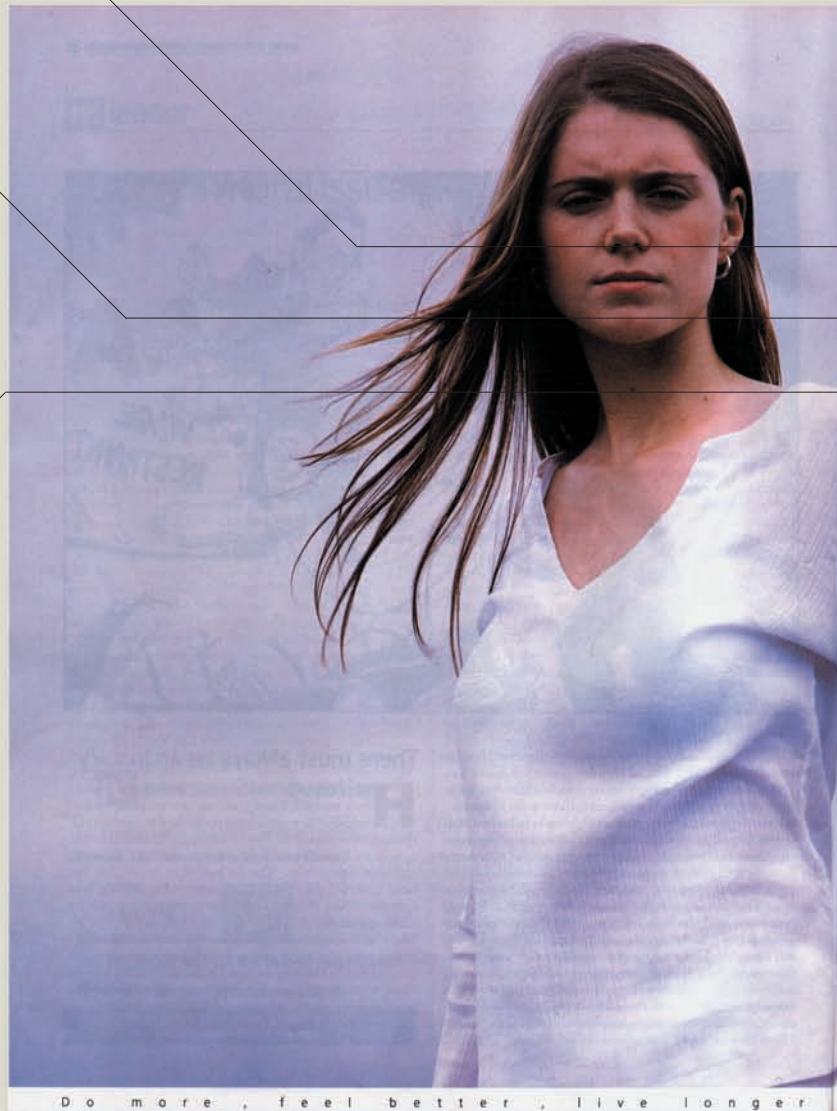
Such as Lotronex (alosetron), the relaunch of which helped turn a non-life-threatening condition into a deadly affliction? (5) On 14 September 2002 the *British Medical Journal* reported that senior members of the FDA's advisory committee had warned that there would be more deaths if Lotronex was relaunched. (It was originally withdrawn after only nine months on the market after five associated deaths.) (6) Furthermore, as *Newsday* reports: '85 people developed ischemic colitis, an inflammation of the colon that occurs when blood flow is interrupted. Another 113 developed constipation so severe it required hospitalization. Thirty-four of those had to undergo surgery to remove portions of their colons. Two with severe constipation died; one of them had Alzheimer's disease and was unable to inform her caretakers.' (6)

Or Zyban (bupropion)? GSK provided insufficient warnings about the potentially fatal side-effects of its anti-smoking drug Zyban, which has been linked to the deaths of 37 patients. More than 5,300 people had also reported adverse reactions under the government's yellow card scheme, which logs problems with drugs. Speaking at the inquest of Kerry Weston, who was found dead just two weeks after her GP prescribed Zyban, GSK's Dr Howard Marsh said that there was a one in 1,000 chance that Zyban could induce fits. Acceptable odds? Between its introduction in 2001 and the death of Weston less than a year later, more than 360,000 people in Britain had used the drug. (8) On the subject of smoking, last September GSK was also found by the UK's Advertising Standards Authority (ASA) to have exaggerated the efficiency of its nicotine lozenges. (9) Still, with the non-executive chairman of Imperial Tobacco on the board, does GSK really want people to stop smoking? (Note: in the same month the ASA ruling, Imperial Tobacco announced a record year with profits up 27 per cent to £789 million.)

Or Seroxat? According to an article published in *The Guardian* last September, over 800 people who found themselves hooked on this antidepressant are pursuing legal action against its manufacturer GSK. The article also revealed that in the USA a federal court judge has ordered the company to pull television advertisements that state the drug is 'non-habit forming'. A couple of weeks later GSK was found guilty of playing down the drug's side effects, including links with aggression and suicide. (11)

Aside from being 'committed to finding innovative new medicines', GSK, and others, love repackaging old faithfuls too... A study of 'new' cancer drugs that were launched in Europe between 1995 and 2000 found that many were not new at all, but repackaged old products sold at prices up to 350 times that of the original. (12)

Behind the lines:



'Last year we spent £2.6 billion on researching and developing treatments that change patients' lives by providing them with medicines for diseases such as asthma, diabetes, cancer and HIV/AIDS.'

But what about people in developing countries, who make up 80 per cent of the world's population, yet represent about 20 per cent of worldwide medicine sales? (13) According to Oxfam, 'Of all annual health related research, only 0.2 per cent is spent on pneumonia, diarrhoea and tuberculosis – three poverty-related ailments which account for 18 per cent of the global disease burden.' (14)

References

- 1 www.gsk.com/about/about.htm
- 2 www.guardian.co.uk/business/story/0,3604,846907,00.html
- 3 www.thecorporatelibrary.com/company_research/directors/director_profile.asp?ID=72331&Ticker=GSK

- 4 www.thecorporatelibrary.com/company_research/directors/search_results.asp?Ticker=GSK
- 5 www.citizen.org/congress/reform/drugsafety/articles.cfm?ID=7442
- 6 *British Medical Journal*, 325 (2002), 592–5
- 7 www.ibsgroup.org/other/lotronex_media/NewsDayJune232002.htm

- 8 news.bbc.co.uk/1/hi/health/1298369.stm
- 9 news.bbc.co.uk/1/hi/health/2248821.stm
- 10 www.guardian.co.uk/uk_news/story/0,3604,792855,00.html
- 11 www.guardian.co.uk/uk_news/story/0,3604,810520,00.html
- 12 *British Medical Journal*, 325 (2002), 269–71


- 13 *Medecins sans Frontières: Fatal Imbalance: the Crisis in Research and Development for Neglected Diseases* (September 2001)
- 14 Oxfam, briefing paper on GlaxoSmithKline: *Dare to Lead: Public Health and Company Wealth* (2001)
- 15 www.q.co.za/news/1999/9906/990602-aidsrate.htm
- 16 www.guardian.co.uk/international/story/0,3604,405799,00.html

Glaxo Smith Kline

“WHAT DID YOU DO TODAY, DAD?”

- At GlaxoSmithKline UK, we feel proud telling our families about the company we work for. We feel passionate about working for a company that is committed to finding innovative new medicines for the NHS. Last year we spent £2.6 billion on researching and developing treatments that change patients' lives by providing them with medicines for diseases such as asthma, diabetes, cancer and HIV/AIDS. We also aim to make a difference in the communities in which we work and our families live. This year, like last year, we will invest over £4 million in UK charities and community groups, supporting education, the arts, scientific and medical research projects. Today, we feel we made a difference.

Science with a conscience



GlaxoSmithKline

Do more. Feel better. Live longer.

We also aim to make a difference in the communities in which we work and our families live.

Like in Ullverston? According to Friends of the Earth, the GSK plant in Ullverston is responsible for producing the third highest amount of carcinogens in the UK, emitting 773 tonnes of them in 2001 – ten per cent of the total carcinogens released by large factories into the UK's atmosphere that year. (20)

In September 1992 (when it was owned by GlaxoWellcome) the same factory dumped several toxic chemicals in the River Leven without authorisation. (21) Two years later it did it again, discharging, again without authorisation, 1,350 cubic metres of 'ineffectively treated effluent' into the river. Although the law states a company must notify the authorities within 24 hours, GSK didn't get round to telling anyone until six days later. (22)

The company has other ways of making a difference to the lives of 'our families'. Despite recording profits of £1.7 billion in the last quarter of 2001, GSK closed down its Liverpool plant at a cost of 500 jobs. (23) And it's planning to close its Scottish plant too. (24)

This year, like last year, we will invest over £4 million in UK charities and community groups, supporting education, the arts, scientific and medical research projects.

Of course. The discovery of new medicines is primarily done by universities and 'medical research projects'. They then license their patented discovery to a company such as GSK, who turns it into a marketable drug. This can be quite a money spinner for cash-strapped institutions, which is why scientists are requested to 'promote and actively pursue commercialisation of their research findings.' (25) In other words, universities are pressurised into conducting research that can be sold to a company.

In September 2001, 13 of the world's leading medical journals accused the major drug companies of distorting research results for the sake of profits. *The Lancet*, the *New England Journal of Medicine*, the *Journal of the American Medical Association* and other major journals accused the drug giants of using their money – or the threat of its removal – to tie up academic researchers with legal contracts so that they are unable to report freely and fairly on the results of drug trials,' wrote Corporate Watch. (26)

Speaking of investments, will GSK once again give millions in political contributions in the hope of legislation that will favour higher prices for its medicines? (27) In one case GSK was able to retain the US patent for Zantac, originally slated to expire in December 1995, for an additional 19 months, netting the company an extra \$1bn. Patients needing the drug, however, were not so lucky. In 1996 a two-month supply of Zantac cost around \$180. A generic version would have cost about half that. GSK's 19-month extension therefore cost patients around \$855 each. (28)

In 2000, the year Bush was elected, GSK's US political donations were worth more than \$3.1m. (29) And last year, the company contributed over \$1m, 83 per cent of which went to the Republicans. (30) But then, if you really cared about the world's health, who else would you want in power?

Not that GSK focussed solely on the US. Last year, it was accused of trying to bribe doctors in Germany with sums of up to £20,000 each to order its drugs. (31)

Today, we feel we made a difference...

Positive or negative? You decide.

And if you'd like to vent your spleen please write to Mr Jean-Pierre Garnier, at GlaxoSmithKline UK Ltd, Stockley Park West, Uxbridge, Middlesex, UB11 1BT. Tel: 020 8990 9000; Fax: 020 8990 4321

Furthermore, GSK has been accused of keeping the price of its anti-HIV medicines out of reach of the poor in countries such as South Africa. (15) It has also blocked attempts by Ghana to import cheap HIV drugs. (16) These and other similar actions have caused Oxfam to single out the company for criticism for overcharging developing countries for its medicines. (17) Not content with making its drugs too expensive for the poor, GSK has even been accused of overcharging for its Aids drugs in the USA. A lawsuit last year by the Aids Healthcare Foundation, the largest non-governmental supplier of Aids treatment to US patients, claimed GSK's prices 'present a formidable obstacle for proper treatment of the Aids epidemic in the US'. (18) One might also want to ask GSK why it has set aside £145m for 'go-away' money to deter generic competitors from challenging its prices in court. (19)

17 www.oxfam.org.uk/cutthecost/news3.html

18 www.guardian.co.uk/business/story/0,3604,747655,00.html

19 news.independent.co.uk/business/news/story.jsp?story=345381

20 www.foe.co.uk/pubsinfo/infoteam/pressrel/2002/20021023000159.html

21 Friends of the Earth, Factory Watch press release, (8 Feb 1999)

22 ENDS Report 292 (May 1999), 33–4

23 news.bbc.co.uk/1/hi/england/1683358.stm

24 www.sundayherald.com/29574

25 Medecins sans Frontières: *Fatal Imbalance: the Crisis in Research and Development for Drugs for Neglected Diseases* (Sept 2001)

26 www.corporatewatch.org/profiles/gsk/gsk3.htm

27 www.commoncause.org/publications/nov99/senior.html
www.cbsnews.com/stories/2002/12/05/politics/main531873.shtml

28 www.democracysouth.org/nc/ResearchPapers/2001/Soft%20Money%203-26-01/ncsoftmoneyconx.html

28 www.commoncause.org/publications/pocketbook2.htm

29 www.opensecrets.org/lobbyists/client.asp?id=9382&year=2000

30 www.opensecrets.org/overview/topcontribs.asp?cycle=2002

31 www.guardian.co.uk/business/story/0,3604,665910,00.html

REVOLVING DOORS • Introducing the latest pro-industry appointee to the Bush administration and revealing what industry gets for all the money it pumps into the president's coffers.

Republican Senator James Inhofe of Oklahoma is the controversial new leader of the US Senate Environment and Public Works Committee. This committee reviews nearly all the USA's legislation concerning green issues including nuclear power, fisheries and pollution.



Inhofe is an outspoken supporter of industry over the environment. He received \$185,958 from the oil and gas industries in the 2001–2002 election cycle, the most of any senator. In 1999 he said to Carol Browner, the EPA administrator: 'I hope we can work together and provide some regulatory relief to the oil and gas industry. I am concerned not about any specific rule, but about all pending regulations across the entire agency.' He supports drilling in the Arctic National Wildlife Reserve and opposes increased fuel-efficiency standards.

SO WHAT DO INDUSTRIES GET FOR ALL THE MONEY THEY GIVE BUSH?

- **The chemical and manufacturing industries gave \$18.6 million.**
In return... the Bush administration, unhappy with the findings of the scientific advisory committees that guide federal policy, began restructuring the Department of Health and Services in September 2002. Committees with conclusions that were at odds with the president's views were eliminated or had their membership reshuffled. In one case members of a committee assessing the effects of environmental chemicals on human health were replaced by people with ties to the same industries that manufacture and profit from selling the chemicals.
- **The oil & gas industries gave \$17m.**
In return... the US government issued a permit in November 2002 to allow BNP Petroleum Corp Seashore to drill off the world's longest stretch of undeveloped barrier reef on Padre Island off the southern coast of Texas. Padre Island provides habitat for

- some 11 endangered species, including the world's smallest and most endangered sea turtle. Permits have also been granted for Yellowstone National Park, Utah's Arches and Canyonlands National Parks, Wyoming's Powder River Basin and Colorado's Canyons of the Ancients National Monument. (At present all drilling in these areas has been halted by legal challenges). This is not to mention Mr Bush's plans for the Arctic National Wildlife Refuge.
- **The Forestry industry gave £3.4m.**
In return... the Bush administration proposed a significant change in longstanding federal rules concerning the US Forest Service's management of the country's 155 national forests in November 2002. The Forest Service would no longer be required to assess the potential impact of a project on wildlife. The proposed rules relieve the agency of scientific monitoring and maintaining wildlife populations while elevating the

- importance of logging and other economic activities.
- **The mining industry gave £3.1m.**
In return... officials allowed a Kentucky coal company to continue mining without a federally required reclamation bond in January 2002. Bonds ensure mining companies fix damage they cause by coal removal.
- **The coal industry gave £3.1m.**
In return... the Bush administration proposed changes to air pollution rules in June 2002 that will weaken the Clean Air Act. The new regulations allow around 17,000 of the country's biggest polluting facilities to avoid installing pollution-control equipment when they improve their plants to produce more electricity.

Source: *Paybacks, Polices, Patrons and Personnel*, the National Resource Defence Council and the Center for Responsive Politics.

America has adopted an attitude that places more value on the life of a critter than on a human being. We want to protect the spotted owl, yet we care little for the men and women who lost jobs in the Northwest when the timber industry was virtually shut down. We want to protect the Arkansas river shiner, a bait fish in Oklahoma, yet we will allow unborn babies to have their brains sucked out in a partial-birth abortion.

Senator James Inhofe, at the Endangered Species Act Reauthorization, September 1997

For the first time in years people are beginning to look at nuclear energy again as a viable option for our energy needs in the future. It is a safe, clean, cost-efficient and reliable fuel source when managed properly.

Inhofe, Hearing on the Nuclear Regulatory Commission, March 2000

There are a lot of nasty stories going around saying that I am the chairman of the committee and I am not pro-environment. I am pro-environment. All I want to do is have two standards and that would be basing our decisions on sound science and having a cost-benefit analysis to these regulations that come out.

Inhofe, The Shawnee News-Star, November 2002

I think the shift from Sen. Jeffords to Sen. Inhofe foretells a sea change in the Senate's attitude toward the environment, going from the most environmentally progressive senator to the least environmentally progressive senator chairing the most important environmental committee.

Frank O'Donnell of the Clean Air Trust, Seattle, November 2002

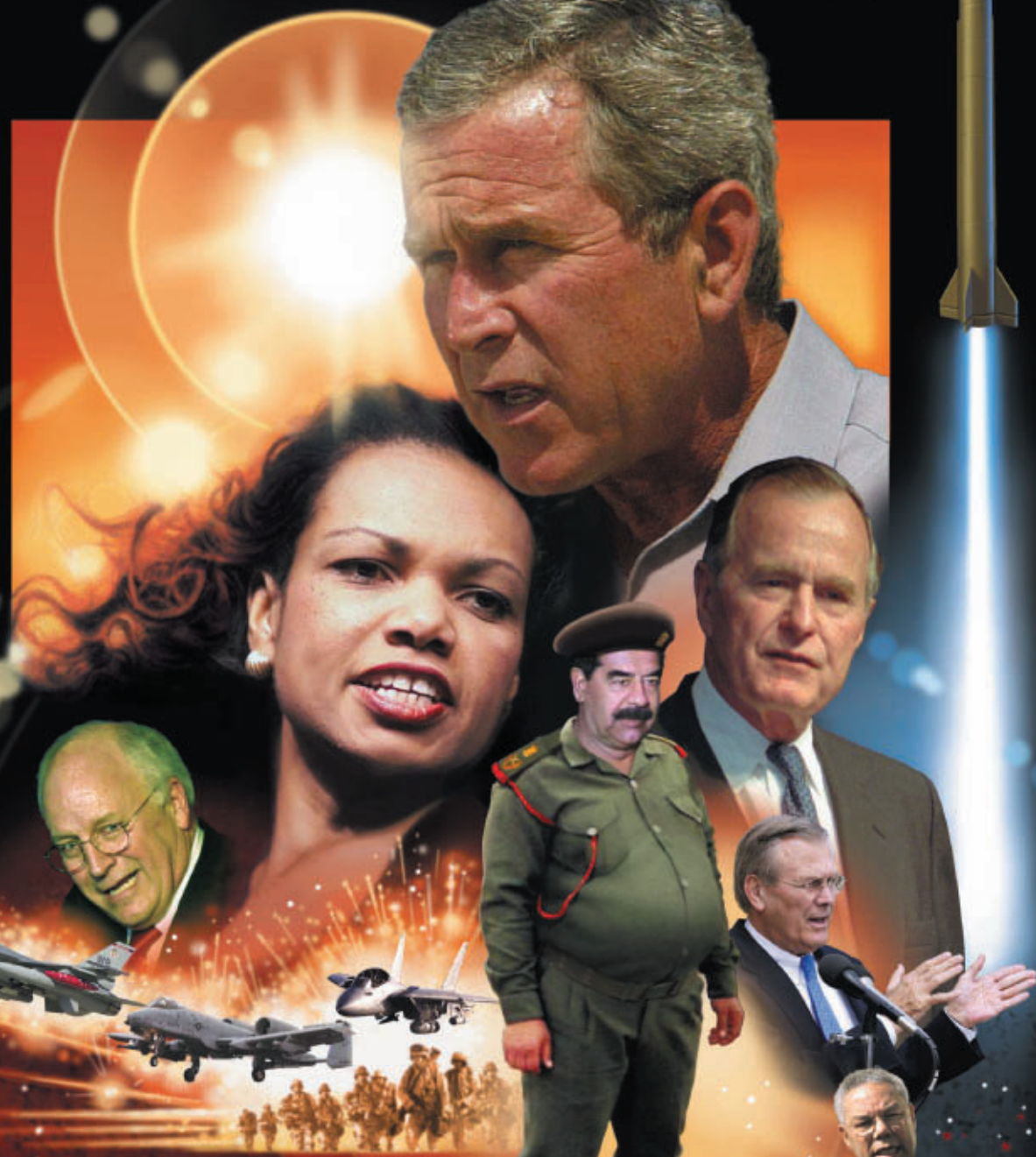
For more Inhofe quotes: www.cleanairtrust.org/release.111302.html

BUSH'S LATEST APPOINTMENTS AND THEIR GREEN CREDENTIALS

Appointment	Committee	State (Party)	Pro-environment Votes *
James Inhofe <i>replaces James Jeffords</i>	Environment and Public Works	Oklahoma (Rep) Vermont (Ind)	0% 76%
Thad Cochran <i>replaces Tom Harkin</i>	Agriculture, Nutrition and Forestry	Mississippi (Rep) Iowa (Dem)	8% 84%
Ted Stevens <i>replaces Robert Byrd</i>	Appropriations	Alaska (Rep) West Virginia (Dem)	8% 56%
Don Nickles <i>replaces Pete Domenici who replaced Jeff Bingaman</i>	Budget	Oklahoma (Rep) New Mexico (Rep) New Mexico (Dem)	0% 8% 64%

* The percentage of total votes cast by each politician which are pro-environment (League of Conservation Voters' 2002 National Environmental Scorecard)

COMING SOON!



THE BUSH ADMINISTRATION
IN ASSOCIATION WITH
THE OTHER BUSH ADMINISTRATION
PRESENTS

GULF WARS
EPISODE II

CLONE OF THE ATTACK

STARRING GEORGE W. BUSH • CONDOLEEZA RICE • DONALD RUMSFELD

REPRISING THEIR ROLES FROM EPISODE I

DICK CHENEY • SADDAM HUSSEIN • COLIN POWELL

AND INTRODUCING OSAMA BIN LADEN AS THE PHANTOM MENACE

BASED ON AN IDEA BY GEORGE BUSH, SR.

PRODUCTION DESIGNED TO DISTRACT YOU FROM THE FAILING ECONOMY

PRODUCED BY THE MILITARY-INDUSTRIAL COMPLEX IN ASSOCIATION WITH EXXON, TEXACO, MOBIL, ET AL.

DIRECTED BY A DESIRE TO WIN THE NOVEMBER ELECTIONS

THE SUCCESS OF THIS MILITARY ACTION HAS NOT YET BEEN RATED

FROM MAD MAGAZINE #424, DEC '02 — ON SALE NOW!

SUBSCRIBE TODAY AT MADMAG.COM!

MAD

© COPYRIGHT 2002 BY E.C. PUBLICATIONS, INC.

Opinionated and outspoken, often wildly at odds with the government's line, the UK's environment minister Michael Meacher is, by his own reckoning, a lone voice in the wilderness. He talks to *The Ecologist* about GM, nuclear power and why no one dares question the path we are on.

sink or SWIM

Michael Meacher is in something of a ministerial hurry. As we bustle down the steps of the Department of the Environment, Food and Rural Affairs a car pulls up to whisk us away. Five hundred metres down the road it stops in front of the House of Commons and we all pile out again. The minister turns to us with a smile. 'Not a very good start, eh?' he says. '*The Ecologist* is here to interview me and I start by doing a Prescott.'

'Doing a Prescott'. It's not exactly what you'd call 'on message'. One can't imagine finding it in the official New Labour dictionary (which is like other dictionaries except the definitions are changed with each new edition and education is listed three times), any more than one would find 'Doing a Byers' – to continue to lie in the face of unrelenting media pressure – or 'Doing a Morris' – to act with honour to save the face of one much more powerful. But neither would you expect to find 'Doing a Meacher', because it has never meant towing the party line.

The environment minister has made a name for himself by veering away from the Third Way to such an extent that former leader of the Labour Party Neil Kinnock dubbed him Tony Benn's 'Vicar on Earth'.

Last year Meacher was asked his opinion of the US policy of dumping GM food on starving African countries and calling it aid. He replied candidly: 'It's wicked when there is such an excess of non-GM food available. We have the means to assist, but we are playing politics over GM.'

'Playing politics over GM'

So, with the USA accusing NGOs of leaving

Africa to starve, Blair calling those environmentalists who are concerned about safety 'anti-science' and the public seemingly keen to keep its food GM-free – we start by asking Meacher what he feels about GM and the risks it might pose.

'The real problem is not whether people are going to develop terrible diseases in six months' time – which is not going to happen,' he replies. 'The real problem is whether 10, 20, 30 years down the track serious and worrying things happen that none of us ever predicted. It's these sort of totally unpredicted problems that make me very, very cautious. The human race has existed on this planet for about a quarter of a million years. We have been feeding ourselves perfectly adequately, since overcoming problems of hunger in our early existence. GM is not necessary.'

So, leaving aside the small fact that the UK minister for the environment feels that we neither need GM nor can be sure if it will be safe, what does Meacher feel about the current system? As the current trials are only testing what effects GM crops might have on the environment, he says, and the government has neither the money nor the manpower to do anything else, we have to rely upon the companies to tell us if they

FOOD STANDARDS AGENCY

THE EARTH SUMMIT



discover any other problems, for example those related to risks to human health. 'So the question is,' he continues, 'can we trust the companies and be sure that they are telling us all they know? When asked if the system is adequate, it is difficult to give the answer 'Yes', for the reasons I have just given. It is very trusting, and that is worrying.'

The issues of trust and corporate science have risen on the agenda in recent years. No more so that with the appointment of Lord Sainsbury as the government's science minister. For the record, Sainsbury is a member of the cabinet biotechnology committee responsible for national policy on GM crops and foods, a key advisor to prime minister Tony Blair on GM technology. He is also a multi-million-pound donor to the Labour Party, giving Labour its biggest single donation in September 1997 and more since, over £9 million in all. Coincidentally he was made a life peer by Tony Blair on 3 October 1997. Sainsbury is also a major personal investor in GM agricultural biotechnology, with long-established links to two biotech companies, Innotech and Diatech. Furthermore, Gatsby, a charity established by Sainsbury,

has invested over £2m a year into setting up the Sainsbury Laboratory, which carries out research into GM crops. In case this isn't enough, the laboratory also receives over £800,000 a year from the

SUBSIDIES

ON STAYING IN GOVERNMENT

Biotechnological and Biological Science Research Council, for which Sainsbury is responsible in his ministerial role.

Or as Tony Blair once put it: 'There is no conflict of interest in David Sainsbury's position. He has nothing to do with the licensing of GM foods.'

We ask Meacher whether he is comfortable that there is no conflict of interest there. The government line, he explains, is that whenever the relevant cabinet subcommittee – known as Sci-Bio – meets to discuss policy or make decisions then Lord Sainsbury withdraws. But this does not prevent him from influencing proceedings before the meeting. 'Sci-Bio meets pretty rarely,' he replies. 'But as far as I know the only way he seeks to avoid this conflict of interest is by absenting himself when decisions are taken by these inter-departmental committees. And as far as I know that is all he does.'

Satisfied? Neither were we, so we ask the minister how he thinks this arrangement must seem to people in the outside world.

Meacher smiles but declines to answer.

Turning away from GM, we enquire how he feels about Jonathon Porritt's comment that this government is in ►

adulation of big business.

Again he smiles and says: 'No comment'. Then, thinking for a second, he adds: 'When I first came into politics Labour was a party which was at best sceptical and at worst openly hostile to business. It has now gone right the other way.' He feels that what matters most is being seen to be independent, that the government should not get too close to any vested interest, whether it is industry or the trade unions. 'As Tony Blair keeps on saying,' he adds, 'we govern for all the people. And that is right and we shouldn't therefore be in the pocket of anyone. Now I'm sure he would say that he isn't.'

But if Blair is not in the pocket of anyone, we wonder, how does Meacher explain recent events surrounding the nuclear industry, which despite years of corrupt practices was last year bailed out by the government to the tune of £650m. It would seem clear that the government is doing everything it can to protect this lethal industry. But is it really worth protecting?

'We have had a nuclear industry for 50 years and still no one is quite sure what to do with nuclear waste,' replies the minister. 'You've got 275,000 cubic metres of intermediate and high-level waste growing rapidly. There is 10,000 tonnes – which is one hell of a lot – at Sellafield alone. If we do not build a single other nuclear power station it will be half-a-million tonnes by the end of the century.'

As we sit back to take in the scale of the problem, Meacher explains what he sees as the main difficulties with nuclear power.

Waste: 'Do you build more nuclear plants when you don't know what to do with the waste and on such an enormous scale and at such great cost?' Liability: 'Do you know how much the Liabilities Management Authority are taking over with the restructuring of BNFL? Eighty-five billion pounds.' Security: 'After September 11 if you want do damage to any country in the world just go for the biggest nuclear installation.' Cost: 'This is the killer in market terms. It's not competitive in price.'

In four straight points the UK's environment minister makes it clear what is wrong with nuclear energy and exposes what is wrong with the government's policy, which rather than looking to end the nuclear age is looking to expand.

THE ENVIRONMENT

THE ENVIRONMENT 2

But he hasn't finished. 'Now the argument of the nuclear industry has always been, "OK, OK, OK, but for supply to meet demand there is no alternative." But I don't think that's true. The big alternative is renewables. There is tremendous opportunity to make a clean sweep and have a very big increase in renewables.'

Heck, we're on a bit of a roll. GM, big business, nuclear power. Might as well go for the big ones: globalisation, growth, sustainable development.

Famously the government tried to avoid sending Meacher to the Earth Summit in Johannesburg last year. In the end, with a group of NGOs offering to pay

his ticket, it recanted and off he went. So what did he make of the world's biggest conference?

'The buzzword at Jo'burg – and, my God, there's enough of them at these things – was "to make globalisation work for the poorest". It's a fundamental issue of a judgement as to whether that is possible or whether it is completely misguided. It is unquestionably true that we are trying to solve a lot of the problems by following the same courses which caused them in the first place. If you talk about what the model should be, of course it is absolutely true – there is a *realpolitik* about this – no one in the industrialised countries challenges that model, it's just about making it work a bit better, be a bit fairer.'

Of course, this is the mantra of sustainable development, and those who chant it relentlessly as they patrol the corridors of power are wont to offer up the same golden lambs as proof of their rectitude. Ask what proof they have that globalisation works, and they point to countries such as Ghana. And when they point, they point very precisely, very specifically at its GDP. They tell you how under the IMF's imposed structural adjustment plans Ghana's GDP rose two per cent a year between 1987 and 1992. What they do not tell you is that it has also seen its forests give way to deserts and now boasts an unrepayable £7.2bn debt.

But does the UK's environment minister share their beliefs, the beliefs espoused by his own prime minister and, since her conversion, Clare Short, the overseas development minister?

Far from it. 'The model on which it is based is fundamentally wrong,' he declares. 'It's not designed actually to enable a country to prosper and thrive. It's designed to put them in a position where they are a valuable, but basically ancillary, part of the capitalist trading network.'

So does Michael Meacher oppose the policies of sustainable development? 'Ever since Reagan and Thatcher the market philosophy has gone totally unchallenged,' he explains. 'I don't know how that is going to change. I go with Tony Benn's theory that the government is the last organisation in the country that radicalises or changes. There is no way that kind of change is going to happen from this government under Tony Blair.'



‘The real problem,’ he adds, ‘is that every government in the EU – the UK included – says, “Of course we want growth.” And growth does solve some problems, but we need growth of a very different kind, one that respects the environment and is generally sustainable. But it is dishonest to say that it is a long-term answer that can go on for ever.’

We ask him how bad he believes the environmental situation to be. ‘The story I like most of all is from James Lovelock,’ he replies. We are somewhat startled. To hear a minister criticise sustainable development is one thing, but to quote James Lovelock and his Gaia theory? Meacher continues: ‘If the human body becomes ill it goes into a fever. The purpose of going into a fever is to concentrate all the activities in destroying the alien virus that is destroying the integrity of the whole human frame. And either, as happens in the majority of cases, it succeeds and the virus is expelled or it doesn’t and the person dies. We are the virus.’

This conjures up an image of a meeting at Number Ten with Meacher standing up and quoting James Lovelock to a sea of astounded suits, all searching for reference to Gaia in their carefully prepared briefing notes. We ask him what would happen. He laughs uproariously. ‘I would be pleading with you for a job within 24 hours.’ He pauses and then by way of explanation adds: ‘I am constantly having to try to decide how far I can go, and I find myself going further and further. I suspect that Number Ten thinks I’m incorrigible, and they just have to ignore me as long as I don’t go too far.’

It makes no sense. Meacher is unique in that he is respected by the environment movement outside parliament, yet clearly at odds with the government. How does he remain in government? And why?

‘I think the view was, “If the NGOs and the peasants are kept quiet, we needn’t take much notice,”’ he says. So is he saying that the environment is not an important issue for New Labour? ‘Being environment minister,’ he replies, ‘is rather like being sub-postmaster in the Outer Hebrides.’ ■

NEW LABOUR & THE ENVIRONMENT

GAIA



BORN November 4, 1939. Married with two sons and two daughters.

EDUCATION Berkhamsted School, Hertfordshire; New College, Oxford (BA Greats, 1962); London School of Economics

NON-POLITICAL CAREER

History Secretary, Danilo Dolci Trust, 1964

Semal research fellow in social gerontology, Essex University, 1965-66

Lecturer in social administration, York University, 1966-69

London School of Economics, 1970

Visiting professor to Department of Sociology, Surrey University, 1980-86

POLITICAL CAREER

Joined the Labour Party in 1962

Labour Member of Parliament for Oldham West (now Oldham West and Royton) since 1970.

Contested Colchester in 1966 and Oldham West in 1968.

Under Secretary for Industry, 1974-75

Under Secretary for Health and Social Security, 1975-79

Candidate for Labour Party Deputy Leadership, 1983

Member of Labour Party National Executive Committee, 1983-89

Member of Shadow Cabinet 1983-1997

Principal Opposition Front Bench Spokesman on:

- *Health and Social Security 1983-87*
- *Employment 1987-89*
- *Social Security 1989-92*
- *Overseas Development and Co-operation 1992-93*
- *Citizen's Charter and Science 1993-94*
- *Transport 1994-95*
- *Employment 1995-96*
- *Environmental Protection 1996-97*

SINCE MAY 1997 Minister of State for the Environment and Privy Counsellor

OTHER AFFILIATIONS

the Fabian Society, SERA and the Child Poverty Action Group.

Parliamentary representative and member of UNISON.

Current responsibilities as Minister of State for the Environment:

- *Climate change*
- *Horizontal and international environmental issues*
- *GMOs*
- *Plant health, plant variety rights and seeds*
- *Agri-environment, non-food crops, organics*
- *Chemicals*
- *Waste (including radioactive waste and incineration issues)*
- *Chair of Green Ministers (ENV(G))*
- *Business and the environment*
- *Environment Agency*

The only current minister who was a member of the 1974-79 Labour government, and one of a clutch of Old Labourites – Gavin Strang, Frank Dobson, Jack Cunningham, Ann Taylor, David Clark – who served the party in opposition for so many years. All of them have gone except Mr Meacher. What's more, he was probably well to the left of all of them - known as 'Tony Benn's vicar on Earth' when he stood for Labour's deputy leadership in 1983 The Guardian

Target whaling today

Whaling is

- cruel
- unsafe
- unsustainable
- uncontrollable
- unhealthy.

Whaling is so cruel and impossible to manage and whale stocks so threatened and poorly understood, that commercial whaling should **NOT** be permitted to resume.

Please join us in our fight to keep the ban on commercial whaling. The situation is critical and we must act **NOW**.

Join WDCS as a vital member TODAY!

Join WDCS today - in two easy steps

1 I wish to join WDCS as a vital member

- Please send my Individual Membership Pack (£3 a month)
Date of Birth (essential if under 18)
- Family Membership pack (£5 a month)
(Adult membership plus choice of under 14's whale or dolphin adoption)
Please choose: Whale Dolphin

MY NAME (MR/MRS/MISS/MS)

ADDRESS

POSTCODE

TEL NO:

EMAIL:

THANK YOU

MEAD0301ECO

2 Please fill in the whole form and return it to WDCS, FREEPOST(SN863), MELKSHAM SN12 6GZ

Instructions to your Bank or Building Society to pay Direct Debit

NAME OF MY BANK

ADDRESS OF MY BANK

POSTCODE

NAME OF ACCOUNT HOLDER(S)

BRANCH SORT CODE ACCOUNT NUMBER

Instruction to Bank or Building Society

Please pay WDCS Direct Debits from the account detailed on this instruction to the safeguards assured by the Direct Debit Guarantee.

SIGNATURE(S) DATE

Tick here if you are a UK tax payer and would like WDCS to reclaim tax, through Gift Aid, at no extra cost to you, on this and any donation to WDCS made from 6 April 2000.

ORIGINATOR'S IDENTIFICATION NO 9 4 1 0 5 1

WDCS REFERENCE NUMBER (OFFICE USE ONLY)

Banks and Building Societies may not accept Direct Debit Instructions for some types of account. Under the terms of the Data Protection Act, you have the right to advise us at any time if you do not want to receive further mailings from WDCS or from other organisations with whom we co-operate.
Company Registration No: 2737421 Reg Charity No: 1014705



Photo: © Mark Votier/WDCS

Return your completed form to:
WDCS, FREEPOST(SN863), MELKSHAM SN12 6GZ

For more information about WDCS, please visit www.wdcs.org or call 0870 870 5001

WDCS - the global voice for the protection of whales, dolphins and their environment

WDCS
Whale and Dolphin Conservation Society

Made in Britain

Eduardo Gonçalves reveals a dirty secret behind Iraq's nuclear ambitions.

In all the huffing and puffing about Iraq's alleged weapons of mass destruction (WMD), little has been said about the West's money-making role in making menaces to world peace out of murderous regional dictators.

Take the 'dirty bomb', for example, said to be the favourite tool of the terrorist's trade. It has become a hot topic post-September 11, and in the campaign to generate public support for an attack on Iraq it is being vigorously suggested that Saddam Hussein currently harbours fresh ambitions to develop his own.

Anyone who plans to build a dirty bomb needs to find a radioactive material with a relatively long (but not too long) half-life. Ideally, it should mix readily with soil, be easy to disperse in food and water supplies, inflict maximum injury (including long-term genetic damage) to a large number of the enemy and in the process cause total psychological terror.

To be really effective, a terrorist or 'rogue state' would want a material that is easy to obtain in powdered form, so that when the conventional explosive detonates, the deadly dust is dispersed as widely as possible.

According to the International Atomic Energy Agency (IAEA), the material that fits the bill is caesium-137. Its effects on humans have been well catalogued, thanks

to the fact that it is the main element in the radioactive fallout from the many atmospheric tests conducted over the years by the permanent members of the UN Security Council. It has a 30-year half-life and attacks fatty tissue, muscle fibre, the thyroid gland, kidneys, lungs and liver.

But where does one get hold of the stuff? Sure, there are always likely to be clandestine sources somewhere in the former Soviet bloc eager to turn redundant radioisotopes into ready cash. However, this



kind of smuggling activity tends to attract unwelcome attention from the authorities.

Far better to be totally upfront about it and ask, say, the British. Better still, why not source it directly from the British government's own radioactive materials factory?

From London with love

When there was money to be made, it really did not matter that Saddam Hussein

was known to be developing a caesium dirty bomb during the 1980s to use against the Iranians. During the Iran-Iraq war, Iranian troops had holed up in Iraq's only port of Fao, from where not even the most intensive shelling would dislodge them. Saddam therefore planned to use a caesium bomb to cut off Iranian supply lines, effectively strangling them into submission.

Therefore, as documents in the public domain confirm, in month 19xx, the official (now-privatised) purveyors of radioactive metals to Her Majesty's Government happily supplied a shipment of the stuff to the Baghdad Nuclear Research Centre, no questions asked (apparently).

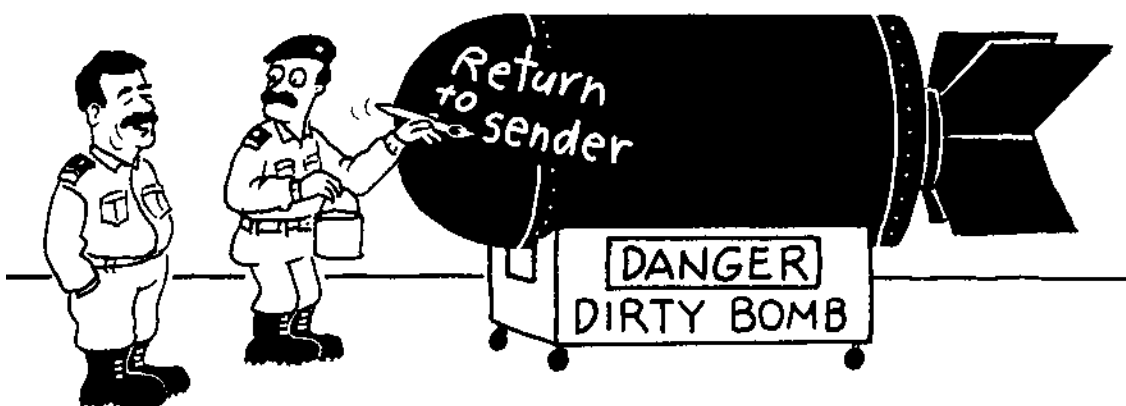
For the record, the materials were sent by the former Radiochemical Centre in Amersham, Buckinghamshire, known today as Amersham Health, one of the largest pharmaceutical factories in the world. And yes, Amersham continues to make radioactive materials for sale to governments and private companies – oh and it also pumps nuclear pollution into Britain's skies and water supplies.

Was the shipment legal? Who approved it? Well, it depends on who you ask.

One British government official I spoke to said that supplying caesium-137 to evil bastards did not come under export restrictions (he didn't use quite those words), while a spokesperson from the Department of Trade and Industry assured me that it was strictly forbidden to export caesium-137 to Iraq (he did, though).

One thing is for sure, though: if Saddam ever does use the bomb, at least we can all rest assured that it carries the stamp 'Made in Britain'.

And that, surely, is great news for British business.



"I like it, I like it!"

Eduardo Gonçalves is an investigative journalist

FLAWED RESEARCH • Last month the Food Standards Agency declared that eating organic chickens increases risk of campylobacter poisoning. So what?

Research conducted by Professor John Humphrey, a scientist sponsored by the Food Standards Agency (FSA), revealed that organic free-range chickens are twice as likely to carry the campylobacter bacteria as battery-reared hens. These bacteria can cause campylobacteriosis, a form of food poisoning in humans that can lead to diarrhoea, abdominal pain, fever, and very rarely, paralysis. Preliminary results were released at an FSA public meeting on organic food on November 6, 2002. Testing 60 organic and 130 conventional flocks, the study found that the bacteria were present in all of the former but only 58 per cent of the latter.

CAMPYLOBACTER

A bacteria commonly carried in the gut of birds where it does no harm. An infectious strain, *c. jejuni*, can cause food poisoning in humans, but being fragile and heat sensitive it is effectively killed by proper cooking.

ORGANICS & THE FOOD STANDARDS AGENCY

- The Food Standards Agency, which sponsored the research, has a history of policies that are anti-organic food and are championed by its director Sir John Krebs. According to the FSA, organic food is not significantly different in terms of safety and nutrition from that produced by conventional means.
- The Soil Association says it has broken off all talks with the FSA until 'it is able to look at organic food and farming with a more open mind'.
- The agency has clashed with the environment minister Michael Meacher after being asked to be more positive about the benefits of organic food.
- 'If the FSA is to be anything more than a useless and expensive clone of MAFF, it needs to represent informed consumer opinion. Post-BSE, consumers have shown very clearly what kind of food they trust: it's no coincidence, after all, that our supermarkets are now brimming with organic food, while GM food is being forced off the shelves. Yet the FSA seems to be pursuing a curiously contrary agenda.' – Joanna Blythman writing in *The Guardian*.

WHO IS SIR JOHN KREBS?

The Soil Association accuses Krebs of being a 'historic supporter of GM foods' and believes that he is biased against organic farming.

He added fuel to the fire by claiming that manure caused much more air and water pollution than do chemical fertilisers. After delivering the annual St Andrew's Prize Lecture in London, he explained that his purpose had been to 'undermine' claims that organic farming is more environmentally friendly than conventional agriculture.

Krebs then made a high-profile attack on organic food, in the words of *The Times*, as 'an image-led fad'.

Dr Patrick Wall, the chief executive of the Food Safety Authority of Ireland has described Krebs' views on organic food as 'extreme'.

CHICKENS ARE MUCH SMARTER THAN YOU THINK

Chickens are far less simple-minded than most believe. They make sounds with actual meaning. Golden bantams, for example, have an elaborate calling system with some 25 different vocal calls in their 'vocabulary'.

Chickens give different alarm calls for different predatory animals, be they foxes, hawks or, presumably, KFC. They don't, however, bother to broadcast warnings if there are no other chickens around.

Chickens are not only aware of their audience's presence, they play up to it.

Roosters, in particular, like a female audience and aren't opposed to using trickery to get one – giving 'food over here' calls, for instance, when there's no food nearby, in order to lure in an attractive hen.

- Virtually everyone infected with campylobacter will recover within 5–7 days without any specific treatment.
- The bacteria are found naturally in high numbers in a chicken's gut, but only specific strains are harmful.
- The low contamination rates in battery hens are likely to be due to various antibiotics administered, which in effect lower their natural immunity.
- The Food Standards Agency went on to admit: 'As long as meat is handled, stored and cooked thoroughly, that should kill any bacteria.'
- Therefore, if any meat – organic or conventional, poultry or pork – were to be prepared correctly the bacteria would present no problem.
- Jerry Wells, head of campylobacter research at the Institute of Food Research in Norwich, stressed that eating organic chickens would not mean there was twice the risk of illness.

FLAWED RESEARCH

What strains of the bacteria were present? The incomplete research fails to identify which strains were present.

It is possible that the contamination may have taken place in the abattoir where the chickens were slaughtered.

The research has so far not been officially published or peer reviewed.



Then again, if you put tens of thousands of them in a shed filled with cramped cages, it all tends to sound like the squawking of a dumb bird.

Animalaid.org say

- The average battery hen yields 338 eggs per year
- Naturally, hens lay one egg every two days or 182 per year

British Egg Information Service

www.britegg.co.uk

The BEIS claims that beak-trimming is essential in free-range chickens, but not in battery ones, as restricted space suppresses their aggression!

RSPCA

A MORI poll found 86 per cent of the British public think that battery farming is cruel and 78 per cent think it should be banned.

UK Egg Stats 2001

Market value: £920 million
 Number of laying birds: 27.5 million
 Total production: 9,636 million per annum, of which:

- Battery hens lay 81 per cent
- Free-range hens lay 15 per cent
- Barn hens lay four per cent

Total imports: 1,332 million
 Total egg consumption: 10,824 million or 174 eggs per person per year

Egg Producers

There are only five main suppliers of egg products: Deans Foods, Freshfayre Products Ltd, Parker Foods, and Stonegate Food Ingredients Ltd. These companies control the industry via the British Egg Producers Association.

Compassion in World Farming Statistics

- Broiler average life span 41 days
- Natural average life span 5–7 years, but can live up to 20
- UK 2001 broiler slaughterings 805 million, compared to 447m in 1985.

Battery hens

- Birds cannot stretch or flap wings.
- They cannot scratch and peck due to bare metal cage.
- Close proximity causes aggression between hens, often de-beaked to stop this.
- Live in artificial environment (increasing day-length) to maximise laying time.



A long walk to freedom

Food Soya

As the people of Argentina are driven by economic collapse to the point of starvation, a new solution is being imposed upon them. Ben Backwell reports on a country being force fed genetically modified soya designed not for humans, but for cattle.

Soya republic

There is no justification for hunger in a country with one of the greatest levels of food production per inhabitant,' says the text on the slick website of the Soya Solidarity campaign. Underneath, a few shiny clean soya beans in front of the smiling face of a child. 'Its time that we replace attitudes based in egoism, bureaucracy, corruption, indifference and "don't interfere" with those of solidarity, ethics, action, and fundamentally, dignity,' gushes the statement.

It goes on in a similar tone to describe soya, 'Argentina's principle crop', as 'a high quality food for human consumption, given that it contains proteins of a high biological value, rich in all the essential amino acids that can practically replace meat in our diet. For cultural reasons, the custom of consuming soya has not been developed. Now the moment to do so has arrived. This can be part of the solution for the hunger that many Argentines are suffering.'

The statement concludes with an appeal for producers to donate soya for needy families, with the help of transport operators, storage centres and the media, 'whose job is to let everyone know about this project and publicise recipes for the use of soya as food.'

Friends in high places

Solidarity Soya's main sponsors are the Direct Sowing Producer's Association (AAPRESID), which groups together large GM producers, Cargill, Chevron Texaco, the Argentine Exporters Association, the Grain Storage Association, the Vegetable Oil Chamber, the Rosario Agricultural Stock Exchange, and the powerful Sociedad Rural, which represents Argentina's large landowners.

It is supported by powerful media interests such as Argentina's biggest daily newspaper *Clarín* and the glossy magazine *Gente* – which called the Solidarity Soya campaign 'a brilliant idea which could change history'. Héctor Huergo, a well known columnist for *Clarín*, called soya 'a complete food, which just needs to enter into our culture.' He went on to suggest that the government could save money on its social spending by supporting soya handouts instead of unemployment cheques. 'Why spend 350 million pesos if we could save this through out solidarity scheme?' asks Huergo.

The campaign has also been supported by media personalities such as the charismatic priest and founder of the Happy Children programme, Padre Julio Grassi, who is also currently on trial for child abuse and recipient of generous government handouts during the rule of the corrupt ex-President Carlos Menem.

'Many times I prayed to God and the Virgin because I couldn't feed the children,' declared Grassi in *Gente* magazine. 'That's why the soya donations from APPRESID were a blessing from God.'

According to Solidarity Soya's website, the campaign has so far directly benefited hundreds of thousands of people in Greater Buenos Aires, Córdoba, Santa Fe, Formosa, Rosario, San Juan and Patagonia – thanks to diesel fuel supplied by Chevron Texaco – through literally thousands of churches, communal soup kitchens, boy scout groups, rotary clubs, neighbourhood assemblies, local councils, and political 'point men'. It has donated some 677,000 kilos of soya in the last year, and is now directly feeding '700,000' people, and 'indirectly' some 300,000 more, according to one of the coordinators of the campaign, Ezequiel Schnyder.

With its extensive social assistance network the Catholic Church has been a key actor in extending Solidarity Soya. When contacted by anti-GM groups alarmed at the effect of the campaign, Catholic charity *Cáritas* refused requests for meetings and sent a written reply saying that 'there is no proof that soya, because it is GM, causes health problems for its consumers.'

While they may not be willing to talk about soya's risks, they are more than happy to give it out. The Three Times Admirable Mother orphanage and its 800 children will soon be running a soya plant capable of producing 30,000 soya rations per day, which will be distributed throughout the soup kitchens of the city of La Plata, Buenos Aires Province. The project will be run by Father Carlos Cajade, with technical support from La Plata University. The former street children that live in the orphanage will act as workers in the plant, as well as, of course, eating from plant's produce.

The campaign has also 'persuaded' large soya producers to donate one tonne out of every 1,000 they produce to schools, neighborhood soup kitchens, churches and hospitals. The campaign then employs a network of promoters that travel the country giving seminars on how to prepare and cook soya beans into steaks, pasties, juices, stews and so on.

Given the almost complete ignorance amongst Argentina's urban population about agricultural affairs, even many Buenos Aires neighbourhood assemblies have been happy to promote soya as a 'natural' substitute for the traditional staples of pasta, meat and cheese, which have become prohibitively expensive for most Argentines. One of the key tactics of Solidarity Soya has been to donate crushing machines to schools to produce soya 'milk', now that school canteens can no longer afford to give children a glass of milk per day. The campaign is also in the process of donating a huge plant in the Buenos Aires provincial capital of La Plata in order to make soya flour for pasta and other foods. The plant – run by a local catholic priest - will feed 800 poor children as well as other sections of the surrounding population.

The result is a disaster. 'Mothers in the provinces are ►

giving soya “milk” to their children thinking that it can replace real milk,’ says Jorge Rulli, a grey-bearded former political activist and member of the Rural Reflexion Group, who spends much of his free time visiting neighbourhood assemblies to counter pro-soya propaganda. ‘The result is anaemia, hormonal disruption, weak bones, rotten teeth, malnutrition.’ The GM feedstock soya that is now being consumed in Argentina is also extremely high in agro chemical traces. Typical traces are 20 ppm of Glyphosate compared to just 0.2 ppm in soya grown for human consumption, according to specialist in GM soya Luis Sabini Fernández. Furthermore, the human body can only absorb limited quantities of soya as it is highly acidic. Argentine strains of soya were developed to be consumed as oils, or by animals in their unfermented state. ‘There is no way that soya can act as a staple without leading to physical deterioration,’ says Rulli.

‘Milking’ it

A government-sponsored congress on nutrition earlier this year produced a document entitled *Criteria for the Incorporation of Soya*. It explicitly warns that ‘Soya should not be denominated as “milk” as it in no way constitutes a substitute for the latter.’ The document also warns against presenting soya as a ‘panacea’, and that it should only be consumed in moderate quantities as part of a balanced diet. It goes on to say: ‘Because of its high concentration of fitates, it interferes with the absorption of iron and zinc, and is not a good source of calcium.’ It warns against giving soya juice to children of two years and under, pregnant women, and indigenous people because of their deficit in iron and calcium.

‘Because of the fundamental role played by milk in the early years, its substitution by the misnamed soya “milk” is completely negative,’ says Andres Britos, from the Argentine Centre for the Study of Infant Nutrition (CESNI). ‘Lack of calcium will inhibit growth and lead to badly formed bones, while the lack of absorbable iron in soya can lead to anaemia.’ Britos warns that soya proteins are not as complete as those contained by meat, and warns that high levels of estrogen in soya may lead to premature development of the sexual organs if it is consumed in ‘exaggerated’ quantities.

Despite this, the government has turned a blind eye while the Soya Solidarity campaign does exactly that. In many areas, government bodies such as the National Farming Technology Institute (INTA) participate in the campaign, ignoring the guidelines spelt out above. The governor of Buenos Aires state, Felipe Solá, who was Agriculture Secretary when GM was introduced, is a firm supporter of the soya complex, and has even been prepared to use his own family as an example of the supposed benefits of a soya diet. The immediate effects in terms of the impact of this sudden introduction of soya in place of traditional foods have yet to be measured, as its effects are only now emerging in the crumbling hospitals of Argentina’s provinces.

And quite apart from the open promotion of soya as staple food, much of the cheaper food sold in supermarkets already contains up to 50 per cent soya – to add consistency and volume – in everything from hamburgers to biscuits and pasta fillings.

According to Teubal, the imposition of the soya model is creating a kind of ‘dietary apartheid’, where the rich continue to eat the same diversity of foodstuffs as before, and the poor are given ‘second rate soya’.

‘The point is that this whole change of model is a business, he says. ‘It has nothing to do with people’s needs. Technology is not neutral, and GM will not resolve the problem of hunger, in the same way that the Green Revolution didn’t before.’

For Rulli, the effects may be even worse: ‘We are addicted to Soya. We have been assigned a role in the world as a producer of soya and in many ways we are now a laboratory. We are seeing all kinds of things due to toxicity: precocious sexual development, early pregnancies, and at the same time, stunted growth. Hormonal disruption will end up making the population less aggressive, creating a new, more docile kind of citizen.’

Soya Republic

This propoganda is the latest development in the transformation of Argentina from a food producing nation to a supplier of feed for the livestock of wealthy nations. Its instrument is GM Soya. Its architects are the giant agro industrial corporations and the biotech firm Monsanto. And its supporting actors are a host of organisations, rural producers, NGOs and individuals who are disingenuously promoting soya as a miracle food that can solve the problems of Argentina’s poor.

‘People keep saying we are “the breadbasket of the world”, but they are missing the point,’ says Rulli. ‘We have become, not a “banana republic” but a “soya republic”, a monoculture that is destroying people’s livelihoods, and preparing the way for famine.’

Economy of Scale

The statistics are startling. In 1994/95 5.9 million hectares were dedicated to soya. By 1999/2000 that number had risen to 7.2m. By the latest estimates, the amount of land used for soya is now as high as 12.7m ha.

The volume of soya produced has grown in the last 10 years from 10m tonnes to an estimated 30m in 2002, making Argentina the world’s second largest producer of GM soya, behind the US, and the world’s largest exporter. Soya cultivation has spread like a cancer, both in traditional grain production areas and in the frontier agricultural regions such as Tucumán, Salta, Santiago del Estero and El Chaco. The onslaught is carrying all before it, affecting even regions such as the forest of Yunga, now disappearing at a rate of 1000ha per year, to be replaced by the green uniformity of Soya.

‘We have already lost – for ever – more than 130,000ha of forest,’ says the director of the Argentina’s Fundación Vida Silvestre (Wildlife Foundation), Javier

Corcuera. 'If we carry on like this we can expect more flooding and less natural resources for the population.'

While Argentines go hungry, the lion's share of the soya production goes to European feed lots, to sustain the 'phantom hectares' of cattle production that could not exist if it were not Argentina and other feedstock producers. The rest is exported as oils, to Asia.

Soya production has been expanding since the 1980s. The process accelerated, however, in 1996 with the introduction of Monsanto's GM seed, Roundup Ready (RR). RR's introduction occurred without any form of public debate in Argentina's parliament and was retrospectively given legal sanction by the Ministry of Agriculture. The result – Argentina is by far the most successful country for Monsanto in terms of take up of its product, with over 95 per cent of producers using RR.

'The direct planting and the GM soya go hand in hand,' explains Professor Miguel Teubal, investigator at the Rural Studies Group of the University of Buenos Aires. 'With the introduction of GM soya and direct sowing, producers can carry out two harvests per year. They leave the leftovers and the weeds of the first season in place, and plant soya on top of it. To kill any thing still living, they put large quantities of Glyphosate on top of it.'

The Glyphosate-based herbicide is called Round Up, and produced by Monsanto. The GM seed is called Roundup Ready and has been engineered for one thing only: to resist the Glyphosate. It is also produced by Monsanto, whose revenues in Argentina rose from \$386m in 1998 to \$584m in 2001 – nearly 10 per cent of its total earnings. Seemingly anticipating Argentina's financial collapse and devaluation at the end of 2001, last year Monsanto opened a \$136m production plant for Round Up in Zárate, Buenos Aires province.

In a worrying tendency, investigators at Conicet, the government-sponsored academic research council, say that Glyphosate use per hectare shows signs of significant increase in the mere five years or so that RR has been used, indicating that weeds are already becoming resistant to its use. The effect on biodiversity of this massive sustained use have yet to be calculated.

'The main "advantage" for producers is not that the GM soya improves yields, or reduces agro-chemical use, but that it reduces labour costs,' says Teubal. Producers no longer have to plough or prepare the soil, nor use several types of fertilisers or herbicides. All a producer has to do is employ someone to regularly measure a sample of crops for weed and parasite levels and, if necessary, telephone a crop spraying service to make another flypass. Indeed, in a government survey carried out in the state of Córdoba, 71 per cent of farmers said one of the main advantages of RR was that 'it saves time'. This has led to a kind of 'agriculture without producers', reduced rural employment and sent further waves of displaced people into the shanty towns surrounding Argentina's huge cities ■

Ben Backwell is an investigative journalist based in Argentina.

GM SOYA: EFFECTS

1 LOSS OF RURAL JOBS

The economies of scale needed for the mechanised agriculture of direct sowing, and the costs of the Monsanto's herbicide and seeds, have left smaller farmers unable to survive. The amount of small and medium farm holdings in Argentina fell by more than 30 per cent between 1992 and 1999.

Since October 2000, 450,000 jobs have been lost, leaving more than 20 per cent unemployed, and more than half the population below the



poverty line. Salaries have lost 70 per cent of their value and the economy is shrinking at a rate of 14 per cent, while inflation runs at 40 per cent. In Tucumán, 64 per cent now live in extreme poverty.

2 CORPORATE LANDLORDS

Aside from the traditional large barons who have always controlled the bulk of the fertile land, large swathes of the country are now in the hands of foreign tycoons such as George Soros, rural investment funds run by agronomists and bankers, and the 'sowing pools'. Many medium farmers merely lease their land to these pools and live from the rent.

3 FOOD INSECURITY

Argentina's production of consumer food goods, and the food security provided by rural producers supplying produce for local markets, has been devastated. Milk production has declined to the point that Argentina is importing milk from Uruguay for the first time in its history, along with other traditional products such as lentils, chick peas, and sweetcorn, and cattle herds have struggled to survive as they are forced into more marginal areas.

'Argentina was not a classic case of an agroexport model because we exported the same foodstuffs which we ourselves ate, and this provided food security,' says Professor Teubal. 'The introduction of the soya culture has dramatically increased our vulnerability.'

4 MONOCULTURE

'We are replacing all the other crops and productive systems, which wouldn't be a problem if it were easy to change back again, but we are wiping out entire woods, fruit plantations and dairy farms, and eliminating the diversity of our production,' says Wálter Pengue, specialist in Genetic Plant Improvement of Buenos Aires University.

CONCLUSION

'The displaced rural producer finds himself in the slums on the edges of the big city, where his knowledge is despised and unused, at the mercy of clientelistic political networks, reliant on hand outs,' says Rulli.

'Within a few years they find themselves completely screwed up physically and psychologically, and when the crisis comes, so does the hunger.'



BURMA • Or Myanmar, depending on which side of the military regime you find yourself. If like the companies below you support the regime, enjoy your visit to Myanmar. If not, please boycott Burma.

While our travel press may be freed to avoid publishing the truth about Burma, the media in Burma enjoys no such liberties. The regime's Press Scrutiny Board orders articles even obliquely critical of official actions to be deleted. Unlicensed possession of a fax machine or modem is punishable by 15 years in jail. There is no public internet access in Burma, apart from a handful of expensive email accounts that pass through a central military server where messages can be delayed for hours while they are read by censors.

Examples of censorship include:

- Banned topics include everything from deposed dictators such as Slobodan

Milosevic and Suharto to floods, plane crashes and train wrecks.

- The September 11 attacks were not mentioned on state television and only in passing by government newspapers. Police confiscated contraband videotapes of CNN's September 11 coverage and threatened vendors with arrest.
- When the national football team was knocked out of the Asian Tiger Cup in 2000, the newspapers were ordered not to report the results.
- A local film-critic's review of *The Man in the Iron Mask* was censored because he quoted the Musketeer slogan: 'One for all and all for one!' The censors felt that 'one' referred to the pro-democracy leader

Aung San Suu Kyi and the 'all' to the Burmese people.

- While the population is unable to discover what its leaders are up to, their leaders are working hard to find out more about what their people are doing. IRIS Technologies is using Burma as a testing ground for its new e-passports which have biometric features. According to the *International Herald Tribune*, 'The company specializes in providing smart-chip technology for governments to identify and track their citizens movements.' What makes this contract particularly alarming is that the UN Special Envoy to Burma Tan Sri Razali is the chairman and 30 per cent stockowner of IRIS.

THE DIRTY LIST

The Burma Campaign recently released a 'dirty list' of companies still profiting from business with Burma's repressive military regime, despite the fact that the country's pro-democracy leader and Nobel peace prize-winner Aung San Suu Kyi has repeatedly and explicitly asked them not to. The companies on that list are shown below.

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Abercrombie & Kent | <input type="checkbox"/> DCI Associates | <input type="checkbox"/> Kuoni | <input type="checkbox"/> Schlumberger |
| <input type="checkbox"/> Adventures Abroad | <input type="checkbox"/> DHL | <input type="checkbox"/> La Redoute | <input type="checkbox"/> Scott Dunn Group |
| <input type="checkbox"/> Airphoto International Ltd / Odyssey Guides | <input type="checkbox"/> Diethelm Keller Group | <input type="checkbox"/> Lion Mining Finance | <input type="checkbox"/> Sea Containers / Orient Express |
| <input type="checkbox"/> Alexander Rose | <input type="checkbox"/> Explorers Tours | <input type="checkbox"/> Lonely Planet | <input type="checkbox"/> Silk Steps |
| <input type="checkbox"/> Andrew Brock Travel | <input type="checkbox"/> Hutchison Whampoa Ltd | <input type="checkbox"/> Lucy Wayne & Associates | <input type="checkbox"/> Sri Asia Tourism Service |
| <input type="checkbox"/> Aon Corporation | <input type="checkbox"/> Highbury House | <input type="checkbox"/> Marubeni | <input type="checkbox"/> Standard Chartered Bank |
| <input type="checkbox"/> Audley Travel | <input type="checkbox"/> Communications | <input type="checkbox"/> Mccann-Erickson | <input type="checkbox"/> Steppes East |
| <input type="checkbox"/> Austrian Airlines / Lauda Air | <input type="checkbox"/> Hunter Publishing / Nelles Guides | <input type="checkbox"/> Mekong Travel | <input type="checkbox"/> Sumitomo Corporation |
| <input type="checkbox"/> Bales Worldwide | <input type="checkbox"/> Iglu.com | <input type="checkbox"/> Mitsui & Co Ltd | <input type="checkbox"/> Suzuki |
| <input type="checkbox"/> British American Tobacco | <input type="checkbox"/> Insight Guides | <input type="checkbox"/> New Horizons Travels and Tours Ltd | <input type="checkbox"/> Tennyson Travel |
| <input type="checkbox"/> Carnival Corporation | <input type="checkbox"/> Ivanhoe | <input type="checkbox"/> Nippon Oil | <input type="checkbox"/> Timbmet |
| <input type="checkbox"/> Cordiant | <input type="checkbox"/> Japan Airlines / Nikko Hotels | <input type="checkbox"/> Norton Rose | <input type="checkbox"/> Totalfinaelf |
| <input type="checkbox"/> Communications | <input type="checkbox"/> International | <input type="checkbox"/> Oracle Energy Group | <input type="checkbox"/> Travelsphere Holidays |
| <input type="checkbox"/> Crown Relocations | <input type="checkbox"/> JJB Sports | <input type="checkbox"/> Petronas | <input type="checkbox"/> Travel World Media Ltd |
| <input type="checkbox"/> Daewoo International Corporation | <input type="checkbox"/> Kajima | <input type="checkbox"/> Pettitts | <input type="checkbox"/> USI Holdings / Unimix |
| | <input type="checkbox"/> Kookai | <input type="checkbox"/> Pricewaterhousecooper | <input type="checkbox"/> Willis Group Holdings |
| | | <input type="checkbox"/> Result | <input type="checkbox"/> Worldwide Journeys |

In the past consumer pressure has made several companies pull out of Burma. All these companies deserve your call. For more information on Burma, its regime and the companies that support it, and for advice on how you can help – including specific campaigns against BAT and Lonely Planet travel guides – contact the Burma Campaign.

The Burma Campaign, Third Floor, Bickerton house, 25/27 Bickerton Road, London N19 5JT.
Tel: 020 7281 7377; Fax: 020 7272 3559; email: info@burmacampaign.org.uk; website: www.burmacampaign.org.uk

1948 Burma gains independence from Britain under U Nu, following assassination in 1947 of Aung San, father of the current pro-democracy leader Aung San Suu Kyi.

1962 U Nu ousted in coup led by General Ne Win, who inaugurates the 'Burmese Way to Socialism', nationalising the economy, forming a single-party state with the Socialist Programme Party as the sole political party, and banning independent newspapers.

1974 New constitution comes into effect, transferring power from armed forces to a 'People's Assembly' headed by Ne Win and other former military leaders.

1988 On 8 August 1988 the Burmese military kills tens of thousands protesting government repression in Rangoon.

1989 The State Law and Order Restoration Council (SLORC) declares martial law, arrests thousands of people, including advocates of democracy and human rights, renames Burma Myanmar.

1990 In a general election Suu Kyi's NLD wins over 450 seats, 82 per cent of the vote. The Junta wins less than 10. The Junta ignores the result and Suu Kyi is put under house arrest for first time.

1991 Aung San Suu Kyi awarded Nobel Peace Prize but not allowed to collect it.

1997 Slorc renamed State Peace and Development Council (SPDC).

2002 Aung San Suu Kyi released after nearly 20 months of house arrest. On day of her release, military attacks villages in Karen State, burning down a hospital, a workshop for the disabled, a school and seven houses.

2002 The SPDC signs a one-year, \$500,000 contract with US PR firm, DCI Associates to 'normalise relations' between the US and SPDC.

40% of all profits go to military junta



EXCLUSIVE FULLY-DISTORTED TOURS

BURMA

leave your conscience behind

DAY 1: RANGOON

Morning – Arrive airport (upgraded by forced labour). Pick up Hire car (Daewoo and Suzuki both have factories here) and drive to Hotel (probable front for drug trafficking). Roam its unspoilt grounds undisturbed by locals, as tens of thousands were forcibly relocated to make way for hotels and to make the scenery appear more beautiful. (NB: Some were retained as forced labour to build your luxury leisure facility).

Afternoon – Explore Rangoon. Visit the famous Shwedagon pagoda, where in 1988 Aung San Sun Kyi gave her first public speech to over 500,000 people. The military responded by gunning down thousands. Or as the Bales brochure prefers: 'The atmosphere of this ancient site at sunset never fails to enchant.'

DAY 2: EXPLORING

Morning – Visit Martaban, famous for glazed pottery and the vast Yadana oil field being developed by Unocal, TotalFinaElf and Premier (see Day 3 for more).

Afternoon – Further on you can see Htam Hin in the distance, dramatically situated over a small ravine and high up a hill. One of 15 refugee camps along the Thai-Burma border, that house a total of 150,000 people in Htam Hin there are 8,000 living under plastic roofs and bamboo shelters. Unfortunately, as this camp is so close to the power station, no visitors are allowed. No one is allowed to leave either.

DAY 3: ALL CREATURES GREAT AND SMALL

Near Martaban we discover 'one of the richest forest floras of Indochina' (WWF) – host to 541 species of mammals, birds, reptiles and amphibians including three critically endangered species, six endangered species, 23 vulnerable species and 22 lower-risk/near threatened species. The Kitti's Hog-Nosed bat, the smallest known mammal species in the world; the Regal crab and the wild Asian elephant are found ONLY here. Unfortunately before clearing 200 sq km for the Yadana pipeline, research by Thailand's national petroleum authority, PTT – whose estimated PR budget was, incidentally, four times that for mitigating impact on wildlife – failed to find any of them. The findings of Total, UNOCAL and Premier's environmental impact assessments are, sadly, unpublished.

DAY 4: PAGODAS, CHURCHES, MOSQUES

Although Burma is predominantly Buddhist, there are Christians and Muslims too, each with their own distinctive practices. Stopping first by a typical Christian church, notice there is no cross on the roof (banned by the junta). Also you'll see no churches under 100 years old (banned by junta). Muslims get even more specialist treatment. Many mosques have been destroyed, with Buddhist shrines often built in their place, while Muslim nationals have to carry special ID papers and have travel restrictions placed upon them.

DAY 5: FIELDS OF MEMORY

Like Tuscan sunflowers or lavender in Provence, Burmese poppies provide a spectacular carpet of colour when in bloom. Beneath their petals lies an ancient secret still upheld today. Burma remains the world's number one exporter of opium.

DAY 6: VANISHING TRIBES

Morning – Visit Ho Ha village, where last year government soldiers executed three Palaung men after finding an old rifle villagers used for hunting.
Afternoon - After a brief stop for photos, visit the site where soldiers tortured a man in 2001 by setting light to his moustache and burning his mouth and another by holding a flame to his eye.
Evening Return hotel where, our tribal troupe will entertain you with a variety of traditional dances.

DAY 7: WHERE THERE'S SMOKE

Morning – Tour the British American Tobacco factory, a joint venture with the military regime who upgraded the facility using child labour. The workers you see earn 23p a day. It would take 85 years for one of them to earn what BAT Chairman Martin Broughton earns in one day.
Afternoon – Transit to airport. Fly home.
 Thank you for supporting the military junta of Burma.

INSURANCE AND MEDICAL
Many travel insurance policies specifically exclude Burma from any coverage. Also bear in mind that the military regime spends only 43p a year on each person's health and education needs. Hence the country's medical infra-structure has all but collapsed.

**7 DAYS FROM
 £1999**

INCLUDED IN THE PRICE

AIRPORT (UPGRADED BY SLAVES)

HOTEL (FUNDED BY HEROIN)

TOURS (UNSPOILT BY LOCALS)

NOT INCLUDED

50,000 CHILD SOLDIERS

VISIT TO NEW NUCLEAR REACTOR

MOST OF BURMA (OFF LIMITS)

'Until very recently this large, politically socialist and profoundly Buddhist country had voluntarily shut itself off from the rest of the world. Its gilded doors are now opened, eager to show its treasures to an appreciative world'

ABERCROMBIE & KENT TRAVEL

'Hard currency is our prime motivation. We also hope that a large influx of international tourists will raise global respectability and credibility for a military dictatorship with one of the world's worst human rights records'

THE RULING JUNTA (allegedly)

'The Golden Land – Experience the marvellous ancient monuments, charming peoples, dramatic scenery and colonial nostalgia of Burma (now Myanmar)'

BALES WORLDWIDE

'A trip for me to die for'

BURMESE CONSTRUCTION WORKER

'One of the few truly original travel experiences remaining in this much travelled world. Decades of social and economic isolation have preserved here many of the traditional features, physical and cultural, which have been lost in other Asian countries.'

MEKONG TRAVEL

'We have not yet come to the point where we encourage people to come to Burma as tourists'

AUNG SAN SUU KYI, PRO-DEMOCRACY LEADER



Journeys of Extinction



After years of failing to make its modified products do its bidding, the biotech industry is changing tack – now its modifying the protestors. Jonathan Matthews reports from South Africa.

rent-a-mob

The protesters were the poorest of the poor. Virtually all black and mostly women, the street traders and farmers conveyed an unpalatable message to the Earth Summit in Johannesburg. These were real poor people marching in the streets demanding development. Nothing surprising there. But a second glance revealed the demonstrators were opposing the eco-agenda of the Greens in support of the biotech industry. This was the environmentalists' worst nightmare.

In the days that followed, the world's media latched on to the march. Seldom can the views of the poor, in this case a few hundred demonstrators, have been paid so much attention. Articles

highlighting the march popped up the world over – in Africa, North America, India, Australia and Israel. In the UK *The Times* ran a commentary entitled 'I do not need white NGOs to speak for me'.

With the summit's passing, the Johannesburg march, far from fading from view, has taken on a deeper significance. Writing in the journal *Nature Biotechnology*, Val Giddings, a vice president at the Biotech Industry Organization (BIO), argued that the event marked 'something new, something very big' that would make us 'look back on Johannesburg as something of a watershed event – a turning point'. What made the march so pivotal, he said, was that for the first time, 'real, live, developing-world farmers' were 'speaking for themselves' and challenging the 'empty arguments of the self-appointed individuals who have professed to speak on their behalf'.

Phoney farmer

To help give them a voice, Giddings singled out a statement made by one of the marchers, Chengal Reddy, the leader of the Indian Farmers Federation. 'Traditional organic farming,' Reddy said, 'led to mass starvation in India for

centuries... Indian farmers need access to new technologies and especially to biotechnologies.'

Giddings also noted that the farmers expressed their contempt for the 'empty arguments' of many of the Earth summitters by honouring them with a Bullshit Award made from varnished cow dung. The award was given to the Indian environmentalist Vandana Shiva, in particular, for her role in 'advancing policies that perpetuate poverty and hunger'.

A powerful rebuke, no doubt. But if anyone deserves the cow dung, it is the president of BIO, for almost every element of the spectacle he described was carefully contrived and orchestrated.

Take Reddy, for instance, the 'farmer' that Giddings quoted. Reddy is not a poor farmer, nor even the representative of poor farmers. Indeed, there is precious little to suggest he is even well-disposed towards the poor. The Indian Farmers Federation that he leads is a lobby of big commercial farmers in Andhra Pradesh. On occasion Reddy has admitted to knowing very little about farming, having never farmed in his life. He is, in reality, a politician and businessman whose family are a



prominent right-wing force in Andhra Pradesh. (His father once famously said: 'There is only one thing Dalits [members of the lowest caste] are good for and that is being kicked.')

If it seems doubtful that Reddy was in Johannesburg to help the poor speak for themselves, the identity of the march's organizers does not breed confidence. It is ironic, given the *The Times*' headline, that the media contact on the organisers' press release was Kendra Okonski. The daughter of a US lumber industrialist, Okonski has worked for various right-wing anti-regulatory NGOs – all funded and directed, needless to say, by 'whites'. These NGOs include the Competitive Enterprise Institute (CEI), a Washington-based think tank with a multi-million dollar budget that comes from such major US corporations as BIO member Dow Chemicals. Okonski also runs the website Counterprotest.net, where her speciality is helping right-wing lobbyists take to the streets to mimic popular protesters.

Delving deeper, it is apparent that there was a network of organisations involved in events that surrounded the march.

Bullshit Award

It hardly needs saying that the Bullshit Award was far from the imaginative riposte of impoverished farmers to India's most celebrated environmentalist, as Giddings suggests. It was, in fact, the creation of another right-wing pressure group, the Liberty Institute, which is based in New Delhi and well known for its fervent support of deregulation, GM crops and Big Tobacco.

The Liberty Institute is part of the deceptively-named Sustainable Development Network (SDN) which was responsible for organising the Johannesburg rally. In London the SDN shares its offices and key personnel (including Okonski) with the International Policy Network, a group which in Washington has the same address as the CEI. The SDN is



run by Julian Morris, who also claims the title of environment and technology programme director for the Institute of Economic Affairs which has advocated that African countries should be sold off to multinational corporations in the interests of 'good government'.

The involvement of the likes of Morris, Okonski and Reddy does not mean, of course, that no 'real' poor people were involved in the Johannesburg march.

American journalist James MacKinnon witnessed the march first hand and saw many impoverished street traders, who seemed genuinely aggrieved with the authorities for denying them their usual trading places in the streets around the event. In the magazine *Adbusters* he reported that march had organisers played on this grievance by distributing a flyer that presented the march as a chance to demand 'freedom to trade'. The flyer made no mention of biotechnology, development or any other issue on the agenda of the Green Left.

For all that, there were some real farmers present as well. Mackinnon says he spotted some wearing anti-environmentalist T-shirts with slogans like 'Stop Global Whining'. This aroused his curiosity, since small-scale African farmers are not normally to be found among those jeering the 'bogus science' of climate change. Yet here they were with slogans on placards and

T-shirts: 'Save the Planet from Sustainable Development', 'Say No to Eco-Imperialism', 'Greens: Stop Hurting the Poor' and 'Biotechnology for Africa'.

On approaching the protesters, however, MacKinnon discovered that the props had been made available to the marchers by the organisers. He reported that when he tried to speak to some of the farmers about their pro-GM T-shirts, they could only smile. None of them could speak or read English.

Another irresistible question is how impoverished farmers – Giddings claims there were farmers from five different countries at the rally – afforded the journey to Johannesburg from as far away as the Philippines and India. Here, too, there is reason for suspicion.

In late 1999 the *New York Times* reported that a street protest against genetic engineering outside a Food and Drug Administration public hearing in Washington, DC, was disrupted by a group of African-Americans carrying placards saying such things as 'Biotech Saves Children's Lives' and 'Biotech Equals Jobs'. The paper reported that Monsanto's PR company Burston-Marsteller had paid a Baptist Church from a poor neighbourhood to bus in these demonstrators as part of a wider campaign to get groups of church members, union workers and the elderly to speak in favour of genetically engineered foods.

In this kind of rent-a-crowd approach, the industry's fingerprints are all over Johannesburg. Reddy, who for over a decade has featured prominently in Monsanto's promotional work in India, was brought to Johannesburg by AfricaBio which itself has been closely aligned with Monsanto's lobbying for its products.

Heart of the matter

And here lies the real key to the president of BIO's account of the march and specifically to the attack on Vandana Shiva. Monsanto and BIO want to project an image that ▶



Farmers expressed their contempt for the 'empty arguments' of many of the Earth summiteers by honouring them with a Bullshit Award made from varnished cow dung.

the Third World accepts of GM technology. That is why Monsanto's website used to be adorned with the faces of smiling Asian children. So when an Indian critic of the biotech industry gets featured as an environmental hero on the cover of *Time* magazine, as Shiva was recently, the brand is under attack and has to be protected.

The counterattack takes place through a contrarian lens, one that projects the attackers' vices onto their target. Thus the problem becomes not Monsanto using questionable tactics to push its products onto a wary Developing World, but malevolent agents of the rich world obstructing Monsanto's acceptance in a welcoming Third World. For this reason the press release for the Bullshit Award accuses Shiva of being 'a mouthpiece of Western eco-imperialism'. And the media contact for this symbolic rejection of neocolonialism? Okonski – an Amercian. In other words the mouthpiece denouncing an Indian environmentalist as an agent of the West is... a Western mouthpiece.

The careful framing of the messages and the actors in the rally in Johannesburg provides one especially gaudy spectacle in a continuing fake parade. In particular, the internet provides a perfect medium for such showcases, where the gap between the virtual and the real is easily erased.

Faking it

Take foodsecurity.net, which promotes itself as 'the web's most complete source of news and information about global food security concerns and sustainable agricultural practices' and claims to be 'an independent, non-profit coalition of people throughout the world'. Despite its global reach, foodsecurity.net's only named member of staff is its African director Dr Michael Mbville, a Tanzanian doctor who is forever penning articles defending Monsanto and attacking the likes of Greenpeace.



The news and information at foodsecurity.net is largely pro-GM, often bitterly abusive, and boasts headlines like 'The Villainous Vandana Shiva' and 'Altered Crops Called Boon for Poor'. When one penetrates beyond the news pages, the content is limited. A single message graces the message board, posted by myoung@bivwood.com, the domain name of the Bivings Group, an internet PR company that numbers Monsanto among its clients. There is also an event posting from an Andura Smetacek, recently identified by *The Guardian* as an e-mail front used by Monsanto to run a campaign of character assassination against its scientific and environmental critics.

The site is registered to one Graydon Forrer, currently the managing director of Life Sciences Strategies, a company that specialises in 'communications programmes' for the bioscience industries. A piece of information

that is not usually disclosed in Forrer's self-presentation is that he was previously Monsanto's director of executive communications. Indeed, he seems to have been working for the company in 1999, the same year the site of this 'independent, non-profit coalition of people throughout the world' was first registered. And incidentally, foodsecurity's African director Dr Mbville is not in Africa at the moment. He is enjoying a sabbatical observing medical practice in St Louis, Missouri, the home town of the Monsanto Corporation.

Web of deceit

Foodsecurity.net is one of a whole series of websites with undisclosed links to biotech industry lobbyists or PR companies. Although the president of BIO has this virtual circus oscillating about him, if he were really interested in hearing poor 'live, developing-world farmers... speaking for themselves', he would need to look no further than Reddy's home state of Andhra Pradesh.

Here farmers and landless labourers were consulted as part of a 'citizens' jury' on World Bank-backed proposals to industrialise local agriculture and introduce GM crops. Having heard all sides of the argument, including the views of Reddy, the jury unanimously rejected the proposals, which were likely to force more than 100,000 people off the land. Citizens' juries on GM crops in Brazil and the Indian state of Karnataka have come to similar conclusions, something that the president of BIO is almost certainly aware of.

But rainchecks on the real views of the poor count for little in a world where 'something new, something very big' and 'a turning point' in the global march towards our corporate future, turns out to be Monsanto's soapbox behind a black man's face ■

Jonathan Matthews is editor of the Norfolk Genetic Information Network website: www.ngin.org.uk

Weasel words

It may be the sticks and stones that inflict the pain, but as Paul Kingsnorth points out, it's the words that often stop us from realising what we are being hit with.

Late last year, local-government minister Nick Raynsford was sent down from Mount Tony to snap at the ankles of the firefighters' union. It was tragically hard to avoid him: he was all over the radio, explaining his government's policies on shafting workers whose boots they weren't fit to polish. Day after numbing day, I heard him talk about 'modernising' the fire service. I heard him explain that he was 'exploring how modernisation might unlock cost savings'. And after about a week of it, I realised that I had absolutely no idea what he was talking about.

Fifty-five years ago, George Orwell wrote an essay called 'Politics and the English Language'. 'In our time, political speech and writing are largely the defence of the indefensible,' he wrote. "Thus political language has to consist largely of euphemism, question-begging and sheer cloudy vagueness... When there is a gap between one's real and one's declared aims, one turns as it were instinctively to long words and exhausted idioms, like a cuttlefish squirting out ink.'

Raynsford, it seems, can squirt with the best of them. What did he mean when he said 'modernisation'? Take a look at the government's plans for the fire service. He actually meant 'privatisation'. And what did he mean when he said 'unlocking cost savings'? He meant 'sacking people', but he couldn't say it; if he had done, people would have understood and most of them would have been against it. Who wants to privatise the fire service and sack firefighters? Hardly anyone. Who, on the other hand, is opposed to 'modernisation' and 'cost savings'? Hardly anyone. See? Clever, isn't it?

I shouldn't pick on Mr Raynsford, though. He's only doing his job. Neither is this another whinge about Labour 'spin'. There's a much bigger, global picture – a widespread and long-standing corruption of language by the powerful. An entire

political culture has been built on one delightfully simple premise: to get away with doing something downright evil, it's not necessary to change your behaviour, it's just necessary to change the language you use to describe it.

Understanding this helps understand the robotic consultant-speak employed by New Labour, a party of free marketers and corporate fifth columnists who are still, it seems, too embarrassed to admit it. New Labour's favourite crime against language is



to get away with doing something evil, don't change your behaviour, just change the language you use to describe it.

called 'dressing up ideologically driven activities in managerial words'. It's dead easy. All you do is pretend that the right-wing neoliberal measures you are planning are something normal and natural that nobody could possibly oppose. Bothered about turning the world into one great big free market and removing any 'barriers' to corporate profit, whether they be ancient cultures or environmental regulations? It's OK, that's now called 'globalisation', which is mainly about having faster internet connections and low-cost air fares. Not only is it beneficial to all, but it's inevitable.

This is related to another language crime – 'using meaningless words to mask horrible things'. The most notorious example of this is the phrase 'collateral damage', which the Americans used for years during the Vietnam War to save themselves from having to use the less palatable 'dead babies'. A new entry, also courtesy of the US government, is 'pre-emptive defence'.

This means 'attacking anyone we want to and justifying it by saying that they might attack us one day'. And who could forget 'daisy cutter', aka the most powerful non-nuclear bomb known to man, and now known to much of recently 'liberated' Afghanistan, which it levelled last year like, well, daisies, apparently?

This is not trivial stuff. Language, as Orwell noted, helps to define thought, as well as the other way around, and dishonest use of words creates a 'reduced state of consciousness', a numbness in the listener. The way to cut through that numbness is to listen closely to how those with power explain themselves. Why? Because, as Orwell put it, if the words 'fall upon the facts like soft snow, blurring the outlines and covering up all the details', then somebody somewhere is doing something they don't want you to know about, probably in your name and with your money.

And no one wants that. Do they?

One No, Many Yeses, Paul Kingsnorth's book on the global resistance movement, will be published by Simon and Schuster in April.



HUMPBACK WHALES – They have the most mysterious and beautiful songs in the natural world, and yet they are being destroyed by the deafening roar of the western navies' new sonar devices.

Rest in peace

Active Sonar

The US, NATO and British navies are currently testing a submarine detection system that employs new Low Frequency Active Sonar (LFAS). The aim is to deploy it across 80 per cent of the world's oceans by 2006.

- Humans can tolerate sounds in the air up to 120 decibels, but LFAS reaches 240 decibels.
- At 300 miles from the source the active sonar can still reach 140 decibels.
- Whales can be adversely affected by sounds as low as 110 decibels.
- At 180 decibels a whale's eardrums can explode.

Effects on whales:

For whales and other marine mammals that rely on sound for communication and navigation, active sonar means serious disruption, deafness and ultimately death.

PHYSIOLOGY Human divers accidentally exposed to LFAS have reported various physiological traumas including lung resonance. This can lead to haemorrhaging, soft tissue damage and death in both humans and marine mammals. Studies subjecting navy divers to LFAS have produced alarming results. After only 12 minutes one of the divers experienced dizziness and drowsiness and had to be hospitalised. He continued to suffer memory problems and seizures and only improved after treatment with antidepressants and seizure medication. There have been mass beachings of various whale species in areas where LFAS has been used, including Greece (1996), Bahamas (2000) and the Canary Islands (2002). Examinations of the dead whales showed extreme auditory trauma.

COMMUNICATION A humpback whale's vocal cycle lasts between ten and 20 minutes and can be repeated for hours at a time. Songs are specific to a region and change slowly over generations. LFAS is known to stop humpback whales singing even when the sonar's source is hundreds of miles away. The effect on their breeding and social behaviour is unknown.

BREEDING A female humpback whale invests heavily into each calf she rears. Each pregnancy lasts 11–12 months and produces only one calf. A calf is not fully weaned until it is one year old and even after that the female rarely abandons her calf. However, following LFAS tests in Hawaii in 1998, marine scientists and tourists found abandoned and distressed whale and dolphin calves, including those of humpbacks.

MIGRATION In the spring humpback whales undertake the long migration from their tropical winter breeding waters to their summer feeding grounds in polar regions. The longest confirmed migration of any mammal is made by humpbacks that breed off Colombia and Costa Rica and then travel south to feed in Antarctic waters south of Cape Horn. But these migration patterns are becoming increasingly disrupted as humpbacks and other whales look to avoid LFAS sources.

DIET Southern Ocean humpbacks mainly eat krill, while those in the northern oceans eat mainly fish – herring, pink salmon, Arctic cod, sardine, mackerel, anchovy and haddock. LFAS's full effects on species other than whales and dolphins have not been considered. But it is thought that the sonar will alter fish species' distribution and abundance. Because the whales avoid the sonar they would be forced out of their normal feeding grounds into areas with less prey.

To protest against the use of active sonar join the Whale and Dolphin Conservation Society: www.wdcs.org





CORBIS

cker

Perhaps you will stay first at the Mar Menor, the region's most famous tourist destination and a unique wildlife site. It is a coastal salt lagoon, shallow and warm, ideal for the increasing numbers of windsurfers and still home (just) to large numbers of flamingos which flock to its waters.

Staying in one of the many hotels crammed onto the narrow strip of land between the sea and the lagoon you will never realise that it was once a beautiful stretch of unspoilt white sand. Instead, you'll see an exciting holiday spot, full of restaurants, shops, villas and apartments, all with lovely views and surrounded by water.

Exploring inland on the ultra-convenient motorways you are spirited into the hills and arid hinterland. After passing through the vast acreage of fruit and vegetable growing areas, you will find that there are still areas of attractive Mediterranean scrub-land dotted around the hills between the pleasant market towns.

Going up...

Nonetheless, you can't fail to notice the amount of development going on. The coastal strip bristles with cranes, and the interior is covered with those typically Spanish urbanisations, in which the lampposts, roads and concrete bases appear long before the houses themselves.

Much of the area is simply unattractive – the permanent building site along the coast; the fields covered with plastic sheeting known as polytunnels; the shacks housing immigrants who work on the farms; and the rigid rows of tiny orange trees, their roots watered by the endless miles of black pipes which snake across the sandy soil.

But those other attractions which originally drew the Brits in such numbers to Spain prevail – the warm Mediterranean, the sense of Spain's vast interior, its history, wine and the ubiquitous hanging haunches of ham.

Before you know it, you're thinking about buying here. The developments are more upmarket than on the Costa del Sol, more spacious and more discreet, and many are built around golf courses with views of the sea and private swimming pools. You can use the profits made from the property boom in the UK to buy here. You can let it out when you don't want it. It's sure to generate income because people will always want to visit this area of Spain. Won't they?

...Coming down

Well, perhaps not. At the heart of this expansion is a growing environmental crisis caused by water shortage, a crisis in which tourism is fully implicated. This is the driest area of Europe, where tourism and industrial agriculture are drinking it dry.

The lush golf courses and well-watered plots represent an unsustainable lie, like all the other lies that have sustained this holiday from the moment you stepped onto your 'cheap' flight.

Aviation, the fastest growing contributor to climate change, receives a huge hidden subsidy. It pays no tax on aviation fuel and no VAT on the purchase of planes, ►



CORBIS

servicing or air fares. Even landing fees and other airport charges at the main airports are kept to a minimum by the Civil Aviation Authority regulatory regime to well below market levels.

The newly born network of smooth, perfectly formed Spanish motorways has been built at the expense of Spain's threatened wildlife – in particular the Iberian lynx. This wild cat, which needs to disperse to breed, has had its territories and isolated communities bisected by the motorways and is now Europe's most endangered carnivore. Conservative estimates put the number remaining at 130.

Next to the motorways, there is an endless vista of agricultural production that is far more than an extension of the vegetable growing for which Spain has always been famous. Most of Murcia's intensive agriculture supplies all-year-round vegetables for UK supermarkets. The supermarkets claim they are simply satisfying consumer demand. Meanwhile, they use their purchasing power globally to get the cheapest, most uniform fruit and vegetables available at the expense of local, seasonally grown produce.

And those organic parsnips you buy to avoid pesticides? They are grown in Spain exclusively for the UK. The Spanish haven't a clue what a parsnip is. They don't eat them. They just grow them for the British and then generate tonnes of pollution getting them over as fast as possible (neatly wrapped in plastic, of course). This kind of production is one of the main problems with which British small farmers have to contend. Many of our farmers simply cannot compete with the costs, looks and all-year-round supply from places like Spain.

Much of this intensive agriculture uses polytunnels, or *invernados* as they are known locally. The process started in the 1960s around the arid town of El Ejido in Almeria, where it was discovered that the tomato yield (and season) could be extended by shovelling a thin layer of sand over the soil and covering with it plastic. This improved ground humidity, micro-thermals and resistance to salinity. Farmers using water from underground aquifers became rich with this intensive market-gardening technique. Traditional slow-growing dry agriculture was abandoned in favour of all-year-round profits.

The polytunnels, meanwhile, are thirsty, ugly and have to be replaced annually, creating a major problem of disposal. The vast majority are either left in unsightly heaps or burnt. Dark plumes of toxic smoke from burning plastic are a common sight. Still, what would we do without salad in December?

This kind of intensive agriculture depends heavily on fertilisers and pesticides, which get washed into rivers and then the sea. Nowhere are the effects clearer than in the Mar Menor. Recently the lagoon has suffered from infestations of jellyfish caused by the nitrates from agricultural run-off. Officials are now paying fishermen to scoop out the jellyfish every day, creating a new

attraction for holidaymakers: piles of rotting jellyfish. 'It's typical,' says Guido Schmidt of WWF's Living Waters project. 'Always dealing with the surface, not tackling the root cause.'

There are social costs too. These areas under intensive development are the focus of hundreds of thousands of new immigrants, mostly unauthorised workers from North Africa. Although Spanish employers face fines for hiring illegal workers, many risk it because they can pay very low wages, sometimes as little as £15 for an eight-hour day.

Most greenhouse farmers earn approximately £30,000 per acre but still refuse to house their workers, who often end up making shacks from discarded polytunnels. The luckier ones live in concrete hovels with no running water. Working conditions are horrendous. With the number of immigrants increasing in recent years there have been attacks and riots. The Moroccan Workers Association complains that farm workers are 'needed but not wanted'.

As the fertile areas around the river and coast cede to tourism, so agriculture has marched relentlessly inland into the arid interior making huge demands for water. Officially the Spanish government is meant to stop any expansion of irrigated land in these areas because of water shortages and depleted aquifers. But a cursory glance shows this is totally ignored. In Murcia it is estimated that 5,000–10,000 hectares of new illegally irrigated plots are created every year.

These areas of cultivation are watered from wells driven into already depleted aquifers or by illegally siphoning water from reserves transferred from the River Ebro in the northwest. Over-exploiting underground water increases its salt content, reducing the fertility of the soil, while over-production exhausts the land. Intensive irrigation causes the earth to suck in salty water from the Mediterranean. Desertification is already visible in places. Continued salination could ultimately return the entire region to desert.

A good walk spoiled

Nothing is more incongruous in this desert landscape than the golf courses. The difference between the first wave of mass tourism to Spain and those who are arriving now is that today people are increasingly buying property. Golf courses are a key factor in attracting the 'right' sort of upmarket purchaser, invariably from the UK and, to a lesser degree, Germany. Currently Murcia has plans for another 34.

Murcia's regional authorities claim the water for these new developments is recycled. But at one new golf course in Argorfa – a surreal area of dark green



in virtual desert – it is impossible to see how. There are no signs of an infrastructure for delivering recycled water and no sign of daily containers arriving. More likely, as with most other irrigated schemes in the area, the water is coming illegally from the already depleted Segura river.

One of the five main directors of this golf course is Maria Teresa Ballester Carreras, wife of José Maria Garcia Zarco, who has important positions in Murcia's Department of Public Work, Urbanism and Transport, which oversees land use. This overlap between politicians and construction companies is common. Protection against inappropriate development is negligible and what protection there is – the zoning of regions – is alarmingly fluid.

Even when campaigners have been able to prove illegal agricultural irrigation and get fines imposed, the municipality promptly reclassifies the land as suitable for housing development. Last year half the land classified as natural open space along Murcia's coast between Mazarron and Aguilas was declassified in this way, freeing 5,000 hectares for agriculture or construction.

Ironically, all this activity may kill the goose that laid the golden egg. The general secretary of the Association of Naturalists of the South East (ANSE) says: 'We have British and German tourists coming to us who bought into these upmarket developments and are appalled when their pleasant complexes are engulfed by other developments. They can't understand why there's no proper land use planning. But what we have here is pretty much development on demand.'

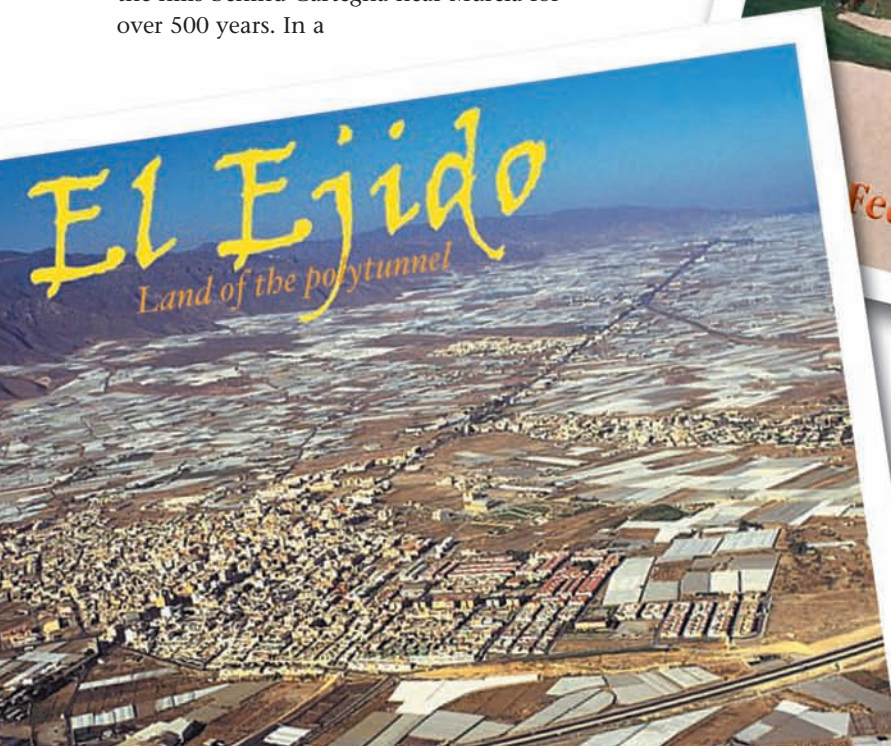
Trouble brewing

The massive demand which these new developments and intensive agriculture make on water resources is already beginning to generate terrible tensions in the region. Miranda Suarez' family has farmed in the hills behind Cartegna near Murcia for over 500 years. In a

traditional Mediterranean landscape, she farms in the traditional way, growing only undemanding olives, almonds and citrus fruits. She waters her land from a natural spring, which is the subject of local legend. It is said the Tartars used to guard the spring in case the Moors poisoned it. Since then it has been used in the traditional way, a free source of water for neighbouring farmers.

But now the surrounding farms are changing and water levels are frighteningly low. Suarez says the spring will be dry in three years. 'There are at least 16 illegal bore holes in neighbouring land. All the land around here is being bought by large companies, often the same people who are building on the coast. They drill pump holes, use some water for irrigation up here, but sell the majority to the water companies. This entitles them to extract water from the same companies further down towards the coast to supply the new developments, golf courses and intensive agriculture.'

This is all part of a process that is ravishing the traditional landscape where imperial eagles and genets used to be common. 'In 1994 there was a huge fire around here ►



which destroyed 40,000 hectares of forest,' says Suarez. 'Landowners were told to leave the scrub to regenerate. There was even EU money available. But then I realised that the burnt land was being bought, grants claimed and bulldozers were moving in, clearing the old forest stumps. Next, fields of broccoli appeared, watered by



illegal bore holes.' The real prize in all this, she says, is water. 'That's what is missing at the coast. That's what these construction companies need and they are prepared to do anything to get it.'

Suarez, who will not use her real name, has been threatened and abused. There is constant pressure on her to sell her land and threats of more 'forest fires' if she doesn't sell. She has taken her case to Europe, trying to highlight the misuse of European funds. But she says: 'I don't know how much longer I can continue like this. I am almost under siege.'

Water transfer

The Spanish government's solution is the Spanish National Hydrological Plan (SNHP). So far, its main achievement has been to divide the country, creating the biggest civil protests in post-Franco Spain, with millions demonstrating in Madrid and Barcelona last year. Around the Ebro delta, where 80 per cent of the economy is still dependent on the river (for growing rice, fishing and transportation), walls in the towns and villages are covered in the symbol of resistance, the knotted water pipe with the slogan: 'No to the Transfer.

Water is for Life'. Local women run market stalls selling campaigning material and recruiting support.

In spite of this resistance the Party Populaire, Spain's ruling right-wing party, pushed the plan through last summer. Now protestors are hoping to persuade the EU to refuse to pay for the major infrastructure projects. The Spanish government, however, claims 30 per cent of the money used for SNHP projects has already come and is confident it will receive the rest.

The plan is highly complicated, but at its heart it is a huge transfer of water from north to south involving the construction of dams and aqueducts. As such, it is a huge boost to the construction industry. Supporters of the scheme, which include Murcia's regional government, buy into the old Stalinist belief that wetlands like the Ebro have water in excess and that a river discharging into the sea is wasted water.

But this is a myth. Without its natural flows, the Ebro delta will sink; it is maintained by the sediment and the flow of fresh water permits the rice cultivation. Its levels are already seriously depleted because of illegal irrigation. 'It's as if your mother has anaemia and the hospital decides to sell her blood,' says an opponent of the plan.

The abandoned infrastructure of previous transfers chillingly supports these warnings. Under Franco, the region was once before the recipient of water from a transfer between the Tajo and the Segura rivers. Now the aqueducts lie empty. At that time the promise of water transfers created a huge demand in anticipation of future water, a demand far greater than the amount of water that arrived.

The same is happening again. 'The authorities expect extra water to be transferred from the Ebro so they are irrigating new zones in anticipation of water to come,' says Juan Pedro Garcia Martinez of ANSE. 'This worsens existing shortages and means that even if water is eventually transferred there will still be a deficit. If the transfer is not agreed, great shortages could produce a situation of crisis.'

What is happening in Murcia is extreme but not atypical. Without a more sustainable approach to water, these conflicts could be precursors of future conflicts in all arid areas. 'We need a whole Europe approach to what's happening, a discussion about how some areas are serving others in the European community,' says Martinez. 'Europe as a whole needs to ask: what do we want to extract from the Mediterranean? More to the point: what can we extract from areas like these without disaster?' ■

Ros Coward is a columnist for *The Guardian*.

Whoops Apocalypse?

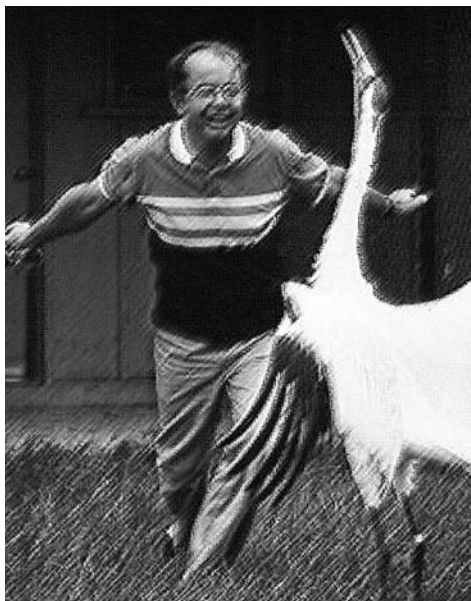
Malcolm Tait tells an unlikely tale of two Georges – and the birds that brought them together.

In May 1939, John Lynch, a member of the US Bureau of Biological Survey team, was making an aerial survey of wildlife in southern Louisiana. As he looked down, he noticed a small flock of whooping cranes, a magnificent five-footer of a bird that once migrated up and down the eastern seaboard in its thousands, but, thanks to mass agricultural draining programmes and millinery feather requirements, was now suffering a population freefall.

Peering out of his plane, Lynch squinted hard and was able to pick out two young cranes, survivors of the broods from that spring. Perhaps, he thought, there was still hope for this graceful creature.

Within months, however, much of the world was at war, and attention was diverted from the plight of birds to that of humans. Two years later, as the USA reeled from the aerial attack on Pearl Harbour, the world's entire population of whooping cranes – or whoopers, as they're known – arrived to over-winter in Texas at the end of their annual pilgrimage from Canada. There were just 15 of them left.

By the end of the war, the species was holding on, but only just. Then, in July 1946, two men were born.



The first was George Archibald.

Growing up to become co-founder of the International Crane Foundation (ICF), Archibald played an instrumental part in saving many of the world's endangered crane species. Yet it was his work with whoopers that caught most people's attention: he was the man who danced with a crane (see picture).

In the late 1970s, one of the remaining whoopers – her name was Tex – seemed reluctant to breed. Artificial insemination



wasn't working, because her hormones simply weren't interested in reproducing. So George began to dance with her. By imitating the male courtship dance, he was able to stimulate her reproductive interest. Tex had a boyfriend, and she felt great.

Whoopers, however, mate for life. So George and Tex danced with each other for six years, until in 1982 her hormones finally responded to the artificial insemination, and she had a son. Today, many of her offspring are alive and well and living in Florida.

July 1946 also saw the birth of another George – George W Bush. But more of him later.

As the second half of the 20th Century rolled by, research into, and conservation of, the whooping crane kept the species alive, even if only in captivity. Efforts have been made by the ICF and other organisations to reintroduce birds into the wild, but by the end of the century, although the population had risen to around 370, not one single pair had successfully bred away from reserves.

Hope continues, however, and Texans

in particular see the species as an iconic symbol. At least, most do. In 1989, one Max Yzaguirre was fined \$15,000 for shooting and killing a whooping crane. He said he'd thought it was a goose. A five-foot goose.

Interestingly, Yzaguirre hit the news again last year when he resigned his chairmanship of the Texas Public Utility Commission, because he'd omitted to mention his years of service to Enron – and the consequent potential conflict of interest – on his original application form. One such mistake in life is unfortunate; two tends to smack of rather deep character flaws.

Recently, in the world of whoopers, something extraordinary happened. In June 2002, with the world again glancing nervously over its shoulder at the prospect of another war, two whooping cranes gave birth in the wild.

63 years after the event had last been recorded, the chick not only survived, but managed to fly. Conservationists rejoiced and named the chick 'Lucky'. Whoopers were breeding in the wild again.

I would hate to overstate the symbolism of the event. Of course, just because world war broke out the last time this happened doesn't mean to say that it will again, however feisty George W Bush might be. But it is worth recording two things. First of all, Lucky had a sibling who didn't make it. The young bird was killed by that symbol of American freedom, a bald eagle.

And secondly, Yzaguirre is not the only member of this tale to have been fined for killing a bird. In 1994, one George W Bush went a-hunting and shot a protected species of plover called a killdeer. He was fined just \$130. He also claimed he thought the bird was something else. He thought it was...

a dove. Draw your own conclusions.

Malcolm Tait is a freelance journalist.

CLIMATE CHANGE • Halon – an ozone- depleting gas 16 times more dangerous than CFCs – will be illegal to possess from 31 December 2003. Is the UK government, like New Zealand, ensuring its safe disposal ?

On 1 December 2002 the New Zealand environment minister Marian Hobbs urged the public to hand in their halon fire extinguishers.

‘Halon fire extinguishers are extremely dangerous,’ she said, ‘not only because they may fail in a fire – they can no longer be serviced in New Zealand – but because halon 1211 and 1301 are very damaging to the ozone layer.’

Concerned that those in possession of halon will choose to “vent off” their halon rather than pay for its legal and environmentally benign disposal, the New Zealand government and fire protection industry have agreed to share equally the cost of collection and disposal.

Fire protection companies are also offering special prices on new fire extinguishers when halon models are traded in.



What is halon?

Halon is a man-made organic compound. The most commonly used types are halon 1211 and halon 1301. The former is used predominantly in hand-held fire extinguishers and the latter in fixed fire-suppression systems that protect high-tech installations.

Why is it being banned?

Halons have the highest ozone depleting potential of any chemical in common use. Halon 1301 is approximately 16 times more damaging than CFCs, which have already been banned. A single one kilogram halon fire extinguisher can destroy 50 tonnes of ozone.

HALON KEY DATES:

- **SEPTEMBER 1987**
The Montreal Protocol, signed on 16 September 1987, establishes an international agreement to phase out ozone-depleting substances.
- **OCTOBER 1990**
The European Union starts to systematically phase out halon fire-suppression systems
- **From 1 OCTOBER 2000**
Newly manufactured halon cannot be used to refill new or existing fire-suppression systems.
- **From 31 DECEMBER 2001**
The manufacture of halon ceases.
- **From 31 DECEMBER 2002**
Recovered, reclaimed or recycled halon cannot be used to refill existing fire-suppression systems
- **From 31 DECEMBER 2003**
All fixed and portable fire extinguishing systems containing halon that are not listed as critical must be decommissioned and removed from service by 31 December 2003. The halon must be processed for destruction or for recycling and reused by critical users.

And in the UK, how is the government planning to dispose of Halon safely?

Is Halon disposal a problem for the UK?

Technically no. Companies exist in the UK that can destroy Halon environmentally, using either ultra-high temperature incineration or plasma conversion.

But, as the system owner will be responsible for paying for the disposal – at present it costs £5–10 per kg of halon – there is widespread concern that owners of extinguishers and systems will vent their halon into the atmosphere rather than pay for it to be destroyed.

How big is the problem?

Conservative industry estimates indicate that there are between 800 and 1,200 tonnes of halon in the UK. However, unlike in Australia, there has been no mandate from the government for registration of halon. It is therefore extremely difficult to come up with an accurate figure.

But if 1,200 tonnes of halon were vented illegally, it would destroy almost 61 million tonnes of ozone.

So what is the UK government doing to ensure safe disposal?

The government has done nothing to ensure the safe disposal of halon in the UK:

- No mandate or funding has been provided to regulate or determine the amount of halon in the country.
- The cost burden of environmentally sound disposal is placed squarely with the owners of systems and extinguishers.
- There is no system in place to ensure compliance.

Fines will apparently be dealt out to users or contractors that vent their supplies. However, since an empty canister will be the only evidence left, it is not difficult to see what is likely to happen once the deadline looms – widespread deliberate venting.

What have other governments done?

Australia phased out halon used in non-critical applications in 2001. There was no evidence that the ban led to deliberate venting because, unlike in the UK, companies had had to report their halon inventories to the government which could therefore effectively police its legal disposal. And like in New Zealand the government offered to subsidise the cost of disposal.

What should be done?

The UK government has 11 months to ensure that illegal and environmentally destructive venting of halon doesn't take place.

The time for policing the disposal has passed as the government has failed to quantify or qualify the problem. Therefore the only realistic solution is for the government to subsidise the disposal of existing halon.

THE ECOLOGIST PREDICTS



The handling of halon will mirror the mishandling of the disposal of fridges.

FRIDGE DEADLINE SET...

EU regulations established in 1988 stated that from 1 January 2002 it would be illegal to dispose of fridges without first removing ozone-depleting substances. Giving the government plenty of time to forward plan.

...AND THE GOVERNMENT DID...?

On 1 January 2002 there were a pathetic two incineration facilities available, each capable of processing eight fridges per week. Given on average 20,000 fridges are dumped every week, the fridge mountain started to grow quickly.

CURRENT STATE OF THE FRIDGE MOUNTAIN

It is currently estimated that the national stockpile runs to one million fridges, at an estimated cost to the tax payer to date of £40 million, the majority of which relates to the cost of storing them, whilst awaiting destruction.



**LIFE
EXTINGUISHER**

The problem with vivisection, argues Derrick Jensen, is that we're experimenting on the wrong sort of animals.



Vivisection

a 'moderate' proposal

To the dismay of many of my friends, I'm not unalterably opposed to vivisection. In fact, I'd wholeheartedly support it were vivisectioners to make one minor administrative change. It would be that scientists perform the experiments not on nonhumans but on themselves and their colleagues.

Scientists keep telling us how beneficial the experiments are for Science with a capital 'S', Progress with a capital 'P' and, of course, Man with a capital 'M'. If the experiments really are Necessary with a capital 'N', the scientists should be willing to make this sacrifice (with a small 's') for the greater good. In any case, according to no other than Lord Sainsbury, UK minister for innovation and science, advocate of genetic engineering and owner of a large supermarket chain,

strict regulations ensure that experiments generally cause no more than 'moderate' suffering. If this is actually true, scientists shouldn't object too much to throwing their hats into this ring.

Now, I'm sure you can spot the problem: there are too many important experiments for the number of vivisectioners. In Europe alone an animal is killed in a laboratory every three seconds. In Britain it's one every 12 seconds, in Japan one every other second and in the USA one per second. I'm not sure even full-fee scholarships and high salaries will suffice to bring in enough scientists to fill this bill. But that's okay, because every problem carries within it the seed of its own solution.

The solution comes through the words of Sainsbury, or rather his

existence: add another category of those eligible to be vivisected. This would, of course, be those politicians who speak or vote in favour of experimenting on live animals. Given the importance of these experiments to everything from the economy and national security to shiny, clean hair and new cosmetics, I think the politicians will be glad to serve the public in this manner.

Unfortunately, this won't solve the problem entirely; I just don't think we have enough politicians (and I'll bet you never thought you'd hear anyone say that).

At first I toyed with the notion of putting vivisectioners' families on the short list, but decided to keep them in reserve in case they're needed to provide 'spare parts', as the xenotransplantation literature

so elegantly puts it, for those humans rich enough to afford their own personal organ donors. The use of vivisectionists' families should eradicate the technical and moral problems caused by the current planned use of pigs and should also bring in some extra cash for the corporations that hire the vivisectionists (and that's always been the real point, hasn't it?); some estimates put the market for pig organs to transplant into humans at \$6 billion per year, just in the USA.

But we still have the problem of numbers, don't we? Not enough vivisectionists, not enough politicians. Naturally, CEOs of companies that profit from vivisection need to go on the list, and in these desperate straits – how could we possibly live without the draize eye-tests – I think we'll just need to add everyone who works for those companies, too. Certainly the shareholders. Especially the shareholders.

I suspect, however, that we still won't have enough; our culture's appetite for subjects on which to inflict 'moderate' suffering seems insatiable. We feel the need to force-feed agrochemicals and household products to dogs through tubes directly into their stomachs and to transplant the hearts and kidneys of pigs into the necks of baboons. We immobilise monkeys, lizards, cats, dogs, then take off the tops of their heads. We break the necks of baboons. We force macaques to become addicted to cocaine, and give them electric shocks if they will not use. We create super-viruses that kill everyone they contact. We cut out portions of the brains of marmosets and leave them as stupid as the experimenters themselves. We cut off the heads of live animals using scissors, then study their brains. We put live animals in freezers and let them try to claw their way out. We teach chimps sign language, then put them in cages the size of cupboards; when they signal that they want to get out, we ignore them and inject them with

pesticides. We separate monkeys from their mothers, infect them with HIV, then put painful coils in their eyes to track where they look.

There are simply not enough CEOs and shareholders. I'll bet you never thought you'd hear someone say that, either.

But I have a plan. Make vivisection duty mandatory for every human who supports animal testing. We are, after all, animals. It will be just like jury duty. You get a note from the local authorities advising you that your turn has come, and you are to report next Tuesday. You call the evening before to see if the experiment has been cancelled. It hasn't, but you learn they only want males. You are, so you show up the next day. You learn you'll be testing Viagra. Good, you say. You don't need it (you hasten to add) but can it really hurt? You soon find out. You take the drug. Instead of cutting off your penis, as happened in experiments on beagles, rabbits, rats, mice and monkeys, the vivisectionists (who at the very least have no testicles, otherwise they would surely refuse each time they were told to torture another) cut open your penis and insert an electrode into a branch of the pelvic nerve. They pass a charge through for a minute at a time, causing erections. They then measure the blood pressure of the erection. Their hope is that Viagra will help maintain the erection. It seems to do that, but you and everyone else concerned already knew that from many previous tests. 'Can I go home now?' you ask, your opened penis smarting. 'Oh, sorry', they say. 'We forgot to tell you: afterwards all subjects are sacrificed.'

You're not too happy about that. But that's okay, you can say as they put the final needle in your arm. Animal experimentation is extremely important, the suffering only moderate ■

Derrick Jensen is the author of *A Language Older than Words* and *The Culture of Make Believe*.

moderate according to the dictionary

adj. Being within reasonable limits; not excessive or extreme, not violent or subject to extremes; mild or calm; temperate

moderate according to Scientific Procedures Act (1986)

Toxicity tests and many surgical procedures. Protocols that have the potential to cause greater suffering but include controls which minimise severity, or terminate the protocol before the animal shows more than moderate adverse effects, may also be classed within the moderate severity limit.

In 2001, Home Office statistics revealed that 55 per cent of licensed projects of animal experimentation in the UK were classified as of 'moderate' severity (see above). Which means that last year 1,412,242 animals suffered moderately in British laboratories.

Put another way, that's just over half the 1,655,766 mice, 489,613 rats, 47,387 guinea pigs, 7,124 hamsters, 2,957 gerbils, 3,053 'other rodents', 23,356 rabbits, 731 cats, 5,460 beagles, 94 'other dogs', 1,039 ferrets, 949 'other carnivores', 649 'horses, donkeys and cross-bred equids', 5,401 pigs, 312 goats, 10,664 sheep, 2,910 cattle, 67 deer, 10 'other ungulates', 1,123 marmoset and tamarin monkeys, 2,219 macaque monkeys, 776 'other mammals', 110,330 domestic fowl, 3,780 turkeys, 1,488 quails, 10,007 'other birds', 341 reptiles, 9,648 amphibians and 170,459 fish.

But what happened to them? Well, 71,261 animals were killed in toxicity (poisoning) tests; 135,839 were subjected to poisoning tests for pollutants, agrochemicals, industrial chemicals, household products, food additives and other food stuffs; 246,844 were only experimented upon after having been bred with 'harmful genetic defects'; 25,043 suffered injections into the brain; 7,225 endured radiation experiments; and 363 were subjected to 'thermal injury', or 'burnt', in normal parlance. Oh, and in 59 per cent of all the experiments, no anaesthetic was used whatsoever.

But didn't most of these animals suffer only moderately in the end? You decide. According to leaked Home Office documents, a programme of xenotransplantation (transplantation of organs from one species to another) undertaken by biotech company Imutran came under the category 'moderate'.

During the experiments, genetically modified piglet hearts were transplanted into the necks of baboons that had been caught in the wild. The documents state that a baboon with a transplanted pig heart was later seen clutching the transplant, which was 'swollen red' and 'seeping yellow fluid' for most of the last days of its life. Elsewhere in the report one can read of a 'cervical abscess eroding the internal jugular vein leading to haemorrhage and [the] collapse of the animal'. Or how one baboon 'collapsed and died because of bronchopneumonia'. Or how five animals 'had to be killed because of gastrointestinal toxicity, resulting in severe diarrhoea'. Makes you wonder how they classify 'severe'.

Or does it? When deciding whether this, or any other experiment should be deemed 'unclassified', 'mild', 'moderate' or 'severe' a team of government scientists apply a cost/benefit analysis, where the 'cost' to the animals is weighed against the 'benefit' to science. However, of 22 scientists on the team, 17 were found to have held licences to carry out experiments on animals in the past, casting a shadow of doubt over their impartiality.

BOTTLED WATER Twice as expensive as petrol, 3 times the price of milk, and 10,000 times more expensive than tap water. Is it worth it, and what impact is it having on our environment?

In November 2002, a grassroots group in Grey Highlands, a village 40 kilometres southwest of Collingwood, Ontario, Canada, won an important court decision that could place restrictions on Ontario's water bottling industry. Three judges of the Divisional Court ruled that commercial water-taking is considered land use under Ontario's Planning Act and comes under the control of municipalities' official plans and zoning bylaws.

That means municipalities may no longer be powerless when a commercial water-taking operation begins pumping millions of litres of water out of the ground. Commercial operators currently hold 50 permits that allow them to drain up to 11 billion litres a year from the province's aquifers, making bottled water big business there.



MYTH 1

'Bottled water is safer than tap water'

A 1997 United Nations Food and Agricultural Organisation (FAO) report cites a study comparing popular brands of bottled water, which showed that they were in no way superior to New York tap water.

MYTH 2

'Bottled water is more healthy than tap water'

In 1997, a FAO study on 'Human Nutrition in the Developing World' declared: 'the claims that bottled "spring" or "natural" water contains near-magical qualities and great nutritive value are "false"'. They admitted that bottled water may contain small amounts of minerals such as calcium, magnesium, and fluoride, but pointed out that tap water from many municipal supplies does too.

BOTTLED WATER TRADE GROWTH

Growth in Annual Volume

1970	1 billion litres (300 million gallons)
1980	2.5 billion litres (650 million gallons)
1990	7.5 billion litres (2 billion gallons)
2000	84 billion litres (22.3 billion gallons)

BOTTLED NUMBERS

1.1 billion	number of people living without adequate water supplies.
£13.7 billion	estimated current value of the global bottled water market.
0	the usual amount companies pay for extracting water.
10,000	the number of times more expensive that bottled water can be than water taken from the tap. (NRDC 1999)
40	est. percentage of bottled water that is in fact tap water. (NRDC 1999)
1 in 3	chance of any of 103 brands of bottled water studied containing levels of contamination, including traces of arsenic and E coli.
£1	the average price of 300ml of Evian.
£1	the cost of delivering 3,750 litres (1,000 gallons) of tap water to a person's home (American Water Works Association).
1.5 million	tonnes of plastic used every year to package bottled water.
89 billion	litres of water consumed globally in 2001.
1 in 4	bottles of water traded and consumed outside their country of origin.
30 billion	litres of water legally allowed to be taken each year in Canada by a bottling company.
25,000	total fees, in Canadian dollars, collected by the British Colombian government every year for water extraction.

A CHINESE PUZZLE

For Nestlé, China is a potential 'blue gold' mine. On average each Chinese person currently consumes only 2 litres of bottled water a year, compared with 45 litres in the United States, and 111 litres in France. But over the next five years the amount of bottled water drunk in China is projected to grow 150 per cent.

For the world's water giants, the mandate is clear – expand. The companies that brought you Perrier (Switzerland's Nestlé – the world's number one producer of bottled water) and Evian (France's Danone – the world's number two) are fighting for dominance in the region.

In early April 2000, the Nestlé Sources Shanghai Ltd bottled water manufacturing plant was opened. It has an annual production capacity of 100 million bottles of water. Where and how this water is sourced is unknown, but given the scale of the demand, future pressure on community water tables looks set to grow exponentially.

Meanwhile, Nestlé and Danone extract the water for next to no cost; package it in polluting plastic; sell it to the poorest of the poor; and have the gall to pretend they are saving lives. When did drinking water become a commodity, not a basic right?

And driving unsustainable demand for bottled water in China will force us to face the fact that 'we will only know the worth of water when the well is dry' (B. Franklin).

LIE

In 1993, Crystal Geyser Natural Alpine Spring Water claimed to be 'nature's perfect beverage' which 'begins as the pure snow and rain that falls on 12,000-foot Olanca Peak in the towering Sierra. This pristine water is naturally filtered through the mountain's bedrock.'

TRUTH

North Carolina Agriculture Department disagreed, saying the company actually drilled underground wells to pump water to the surface for bottling. Crystal Geyser and seven other bottled waters were ordered to be removed from store shelves.

HALF TRUTH

The brand 'Spring Water' featured a picture of a lake surrounded by mountains on its label.

COMPLETE TRUTH

The source for this water was actually a well in the middle of an industrial parking lot next to a hazardous waste site.



It struck me... that all you had to do is take the water out of the ground and then sell it for more than the price of wine, milk, or for that matter, oil.

Ex chairman of Perrier

True conservation of water is not the prevention of its use. Every drop of water that runs to the sea without yielding its full commercial returns to the nation is an economic waste.

Herbert Hoover (1926)

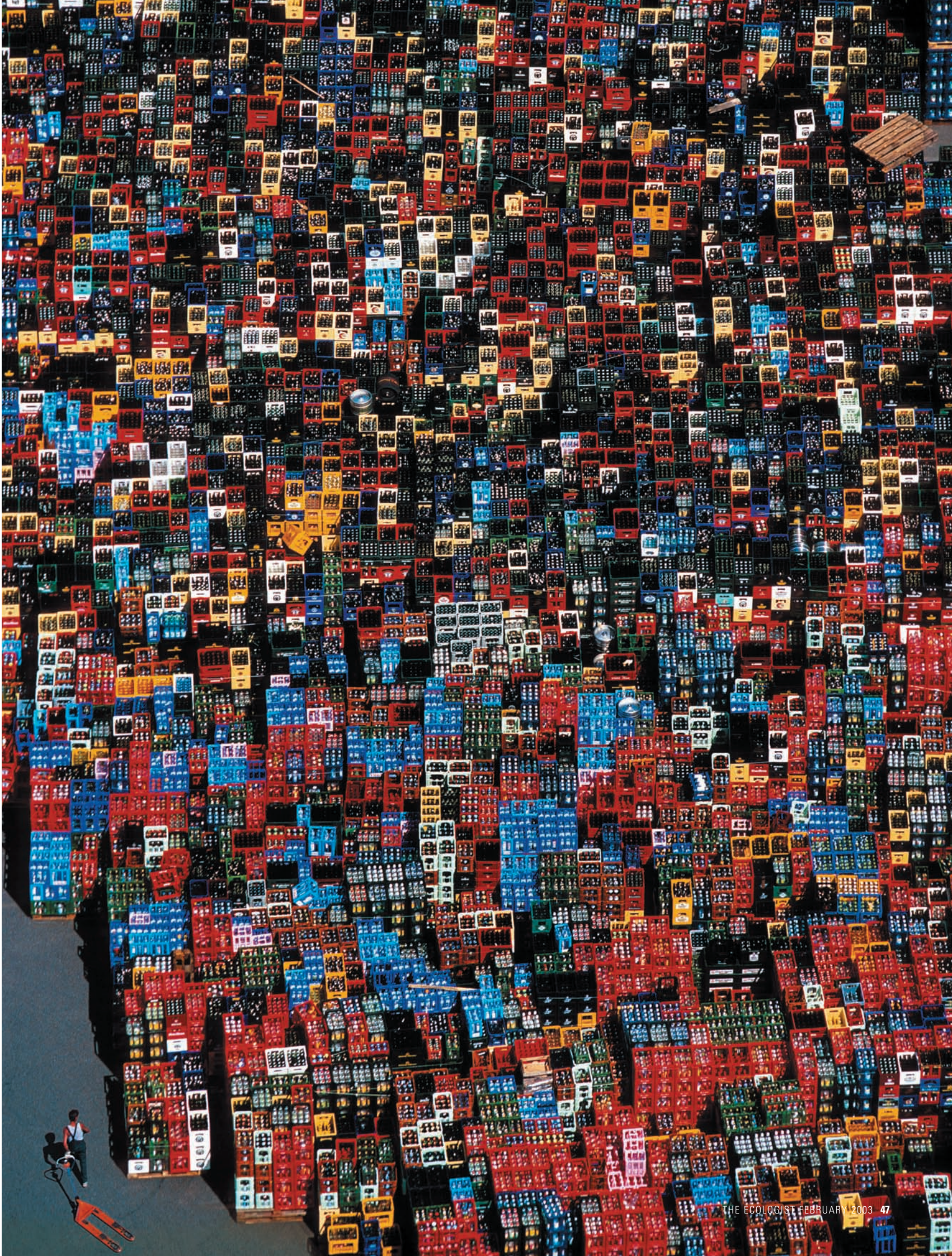
When you drink water, remember the spring.

Chinese Proverb

Photo opposite:

Bottle racks near Braunschweig, Lower Saxony, Germany.

By kind permission of Impact photos, and taken from Yann Arthus-Bertrand's inspiring book *The Earth from the Air*.



Russia's zapovedniks are some of the world's most pristine wildernesses. For 70 years they were protected ruthlessly by the Soviet system, but recently they have fallen prey to Putin, the World Bank and ecotourists. Paul Webster reports on their plight.

The Wild

They form a patchwork of dizzying diversity that includes the largest undisturbed Eurasian wilderness, the world's most biologically varied temperate forests and an inter-continental roll call of rare species from the Siberian tiger to the snow leopard, the Anatolian leopard to the Asiatic black bear and the European bison to the oriental stork. They are Russia's greatest natural marvels, a collection of 100 scientific reserves ranging in size from two hectares to 3.6 million hectares, that represent an astonishing 40 per cent of the world's scientific reserves. And they are at risk of being destroyed.

Better red than dead

Established in 1916, the reserves, which are known as zapovedniks, were originally

governed under the Soviet system by strict rules that prohibited any activities within their boundaries, other than those for scientific purposes. But in 1991 the Soviet collapse suddenly exposed the reserves to market forces. The Russian government slashed zapovednik budgets by 90 per cent and pay was terminated for thousands of nature wardens and researchers in the reserves. The parks found themselves under fierce attack, threatened by developers and industries who were keen to strip them of their protected status.

'Russia's greatest protected areas are being destroyed,' says Arkady Tishkov, a biologist and geographer at Moscow State University who monitors parks and zapovedniks. 'Everything is being done to change the status of reserves and national parks to allow economic exploitation like logging and oil drilling.'

The pressure on zapovednik directors and scientists is fierce. 'We are supposed to be quiet when our local administration makes plans to cut down the forests that we have been protecting with our limited resources, even at risk to our lives,' says Tishkov. 'We are supposed to be patient when local bosses visit us and demand bribes.'

Enter Putin

Although the crisis started in 1991 with the end of 70 years of rigid Soviet protection, the disaster deepened two years ago when Russian president Vladimir Putin came to power and introduced an aggressive programme to boost government revenues by exporting Russia's natural resources.

One of Putin's first moves in office was to shut down the Forest Department, which, along with the State Committee on Environment Protection, was Russia's main environmental regulator. Its responsibilities, including management of the zapovedniks, were passed to the Ministry of Natural Resources, a



Wild East

department, as its name suggests, dedicated to resource exploitation.

The effect was immediate. In October 2001 the deputy minister of finance suggested that money could be raised by logging the zapovednik's buffer zones which were designed to shelter their perimeters. Furthermore, it was put forward that those zapovedniks without buffer zones should sacrifice forest areas within the reserves to logging.

Vsevolod Stepanitsky, Russia's most senior zapovednik administrator at the time, resigned in anger soon after those suggestions were made. 'The policy of abandoning the zapovedniks is having dramatic impacts,' he says. 'There is incredible pressure from industrial lobbies. The ministry is dedicated to encouraging resource industries to strip and sell natural resources anywhere they can.'

The ministry's new zapovednik director Vladimir Pishchelev denies the charge. 'These are protected areas and that won't change,' he says. He insists the ministry will not surrender the zapovedniks to chaos, corruption and condemnation.

But when asked whether the zapovedniks are now open for business, Pischelev gives an important admission. 'There are lots of ways to make money in the zapovedniks,' he says. 'We favour a sustainable conservation approach.'

Sustainable?

These days in Moscow, everyone aims to be sustainable. The forest industry promises it. The oil industry is enthusiastic. The nuclear industry is keen. Even President Putin, whose anti-environmental policies delivered huge budget surpluses in recent years, says sustainable development is his goal.

But Russia's biggest sustainability booster is undoubtedly the Washington-based World Bank. In recent years, it has sent out \$170 million in loans to the Russian government for 'environmental projects'. They started in 1994, with a \$110m loan for an environmental management programme. The aim was to help Russia's beleaguered Ministry of the Environment to re-organise, rebuild and rededicate itself to serve 'both nature protection and economic growth, through

sustainable and environmentally acceptable development options'.

The bank's efforts to rebuild Russia's environment department were temporarily punctured when Putin terminated Russia's federal environmental agencies in 2000. Forced to rethink, the bank quickly drafted a \$60m loan to Russia's Ministry of Natural Resources for a 'sustainable' forestry project which aimed to help the ministry boost pulp and paper production through intensified approaches to forestry.

The bank hopes the loan, which is currently in the final stages of negotiation, will help Russia hugely expand forest cutting using 'sustainable' practices modelled on those found (and bitterly opposed as utterly unsustainable) in Canada, says Andrey Kushlin, the bank's Russian environmental chief.

Conservation?

In 1996 the Global Environmental Facility (GEF), an environmental protection fund established by the World Bank and the UN, granted \$20m for a biodiversity conservation project aimed at helping Russian nature ►

reserves and parks cope with the crisis triggered by the Soviet collapse.

Under the recently completed project, zapovedniks received nearly \$3.8m in direct aid for computers, security, transportation and salaries. A further \$440,000 was awarded for 66 scientific projects. And the project delivered another \$15m for programmes based in Russian parks.

And what did the bureaucrats do with those millions?

Mostly, they engineered projects promoting 'sustainable' ways to squeeze money from nature, including the publication of two books: *Ecological Problems and Commodity Producers: a Review of Facts and Examples in the Russian and World Markets* and *Nature and Profit: a Textbook for Children and Ministers*.

The programme also paid for various economic studies, the language of which typifies modern man's relationship to the natural world. For 'The Economic Value of Living Nature in Concrete Situations based on the Total Economic Value Concept' and a study of how to integrate 'categories of economic value of biodiversity into the National Strategy of Biodiversity Conservation,' read 'How much do you want for the trees?'

Business of biodiversity

So it goes on. 'We looked at how the business of biodiversity can be made more sustainable', says Kushlin, who managed the project. He explains that putting the zapovedniks to work was a key objective in an overall effort to bring environmental protection into the mainstream and make it a factor of economic development.

The programme focussed on making use of high-profile reserves as engines of economic development with more and more focus on maximum use of protected areas. Specifically, Kushlin says, that means eco-tourism and sustainable hunting.

According to the bank, its programme delivered a 44-fold increase in tourism in ten zapovedniks where tourism was tracked. Trails and roads averaging 487 kilometres long were built in each of these reserves.

The zapovedniks were originally protected by strict Russian laws that ensured natural purity in these areas by keeping humans out. Asked if the

Driven by Putin's greed, aided and abetted by the myopic World Bank and a host of foreign multinationals, Russia's great ecological wildernesses are being plundered.



An hour from Moscow, housing developers have put the buffer zone around the Priosko-Terrasny zapovednik to work, for sewage lines and roads.

On the borderlands of the Sayano-Shushensky zapovednik, north of the Mongolian border, nature wardens reportedly now serve double duty as hunting guides for hunters from Europe, Canada, and the United States.

South of Lake Baikal, plans are set to flood a section of the Bureya zapovednik for a hydro project.

A Canadian company has plans for another massive ski resort on the Krasnaya Polyana zapovednik near Sochi on the Black sea.

In the Caucasus mountains, efforts are underway to build a road through the Kavkazsky zapovednik, and for a Russian-owned ski resort in the Terbidinsky zapovednik.

At the Astrakhansky zapovednik on the northern shore of the Caspian, guiding tourists distract wardens from patrolling for poachers.



On the Kronotsky zapovednik, masses of tourists pour from cruise ships anchoring offshore, trampling all over one of the world's most unique ecosystems, as helicopters thunder overhead.

On the Sakhalin Islands, the Poronaisky preserve is ringed by oil exploration, as international giants, Shell, BP, and Exxon, tap into the massive oil fields nearby.

In the Kuril Islands, Canadian gold miners have pushed into the Korilskii zapovednik.

economic push contradicts this original purpose, Kushlin says the old-style purists must surrender. 'There are no longer sustainable economic means to do it the old way,' he says.

Development or disaster?

The Kronotsky zapovednik is Russia's most famous reserve. Lying on the Kamchatka peninsula it is home to active volcanoes, thermal rivers and beautiful scenery. When Putin cut funding for Kronotsky, GEF specialists were invited to help develop tourism.

Soon afterwards tourists started arriving on cruise ships and helicopters, generating substantial revenue despite the laws to keep them out.

'The reserves do not need financial sustainability based on ecotourism,' says

Vladimir Mosolov, Kronotsky's deputy director of science. 'Ecotourism will only destroy the Russian system of reserves. What has to be supported are protection activities, not the infrastructure of ecotourism.

'None of the proceeds are invested in supporting the reserves themselves. The next step will be when the government changes the reserve's status from zapovednik to national park. And if that happens, Russia's most famous zapovednik, one of the world's great biodiversity reserves, will cease to exist.'

Marine biologist Olga Selivanova, a field researcher at Kronotsky, echoes these criticisms. 'The World Bank did a great job of opening Kronotsky for cruise ships and helicopter companies. But they have only succeeded in making the reserve environmentally unsustainable.'

In conclusion

Olin Rhodes, a Purdue University wildlife ecologist with a strong interest in the zapovedniks, is unequivocal on the topic of opening them to ecotourism. 'Once you allow ecotourism, they are no longer zapovedniks,' he says. 'They cannot be, because they are no longer suitable for the study of long-term ecological processes in

undisturbed natural settings.'

Vadim Mokievsky, an oceanographer with Moscow's Shirkov Institute agrees. He insists that the zapovedniks are 'strict scientific reserves where any kind of human activity must be prohibited completely'. Even from a narrowly economic view, he says, protecting biodiversity by keeping people out will pay a greater economic reward through scientific rewards in the long run. And the way to do it, he says, is through pressuring the government to

protect the reserves from market forces. 'Society has to pay,' he argues.

Instead, the World Bank and the Russian government are making 'poor, unrealistic assumptions if they succumb to the myth that nature can be protected though free market mechanisms,'

says David Ostergren, a researcher in Russian wilderness policy at Northern Arizona University. In his view, the Russian government has a responsibility to fund the sanctuaries.

Budget surplus

A review of Putin's recent budget priorities suggests environmental cuts are no longer necessary. Profits from oil and other natural resources have increased Russian government revenues by 50 per cent in just two years, delivering a \$10 billion annual windfall starting in 2001. This has allowed Putin to pay off foreign debts ahead of schedule while putting aside a \$3bn budget surplus; he has boosted military expenditure by 40 per cent and spent \$500m a year on the war in Chechnya.

Recently the international community has got wise to Russia's new wealth and of Putin's controversial spending. So the idea of mobilising public support for a lobby to persuade the government to set aside some of what it squeezes from nature to protect the reserves has become a realistic ambition. If successful, the zapovedniks would have a real chance at a sustainable future. Otherwise the world will lose some of its greatest natural treasures before most people even knew they existed ■

BHOPAL • Eighteen years after the world's worst chemical disaster, survivors are still fighting for compensation. And Dow Chemicals has taken over the defence of the indefensible.

In the face of growing international fury, Dow Chemicals has decided not to sue survivors of the Bhopal disaster, which saw thousands of people die after an explosion in 1984 at a chemical factory owned by Union Carbide, which Dow now owns. Digvijay Singh, Chief Minister of Madhya Pradesh, instructed his officers in the presence of an ICJB delegation to drop all charges against activists who were protesting outside Dow's Indian headquarters in Mumbai. Singh also apologised for the unwarranted brutal treatment meted out to the survivors and their supporters.

Dow had intended to sue the group of 200 women for \$10,000 for loss of earnings, after a Dow employee ventured out of the Mumbai corporate business park for a brief meeting with the protestors. The damages demanded by Dow would have amounted to approximately ten years' income for the demonstrators but less than one hour's sales revenue for the world's largest chemical company.

To mark the 18th anniversary of the disaster, the women had delivered toxic waste from the abandoned Union Carbide factory. They called upon Dow to assume all responsibility for the Bhopal disaster. Among their demands were for survivors to receive economic rehabilitation, long-term health care and clean drinking-water and that Dow should clean up of the factory.

They also insisted that Dow, as the owners of Union Carbide, face its criminal liability charges in the ongoing case pending in the Bhopal district court and that Warren Anderson, former chairman of Union Carbide, be brought to justice and face trial in India.

BHOPAL IN NUMBERS

Pre explosion:

67	tonnes of the deadly MIC gas stored at Bhopal
0.5	maximum number of tonnes of MIC allowed to be stored in Europe
24	number of weeks required for standard safety training
2	number of weeks employees at Bhopal received safety training
6	number of months before critical equipment should be replaced
2	number of years before critical equipment was replaced at Bhopal

Post explosion:

8,000	number of people dead in first three days that followed the explosion
520,000	number of people exposed to poisonous gases
200,000	to 500,000, number of survivors now chronically ill
2	frequency, in days, of deaths caused by the disaster
20,000	now dead (conservative estimate)
0	amount of compensation received by victims between 1984 and 1988
\$4bn	Estimate of Bhopal State's economic losses
\$10bn	UCC's assets in 1984
\$240m	Final settlement offer by UCC for survivors
\$240m	UCC's insurance cover
\$50	UCC spend on lawyers for the case

WHAT IS DOW CHEMICALS?

Dow is the largest chemical company in the world with annual sales over \$30 billion. Its operations span 170 countries and involve a workforce of over 50,000 people. Dow manufactures and distributes chemicals – DDT, Agent Orange, Dursban (pesticide) and asbestos – which are highly restricted or banned in the USA. It is the world's largest producer of persistent organic pollutants (POPs), the worst of toxic chemicals and their main by-product Dioxin, one of the most poisonous.

\$500 is plenty good for an Indian. **Michael Parker, Dow's former CEO, referring to compensation paid to Bhopal victims**

What we cannot and will not do, no matter where Greenpeace takes their protests and how much they seek to undermine Dow's reputation with the general public, is accept responsibility for the Bhopal accident.

Parker

The bottom line is we only spend money on essentials... We cannot allow ourselves to be distracted. We cannot engage in the 'what-ifs' of life nor meaningless speculation.

CEO William Stavropoulos

Victims of the Bhopal tragedy could be fairly and adequately compensated without a material adverse effect on Union Carbide's financial condition.

Union Carbide annual report, 1984

They were dead, every one of them, hundreds of them, dead. The dying were urinating, defecating and vomiting... In a few minutes I will be dead.

Victim of poisoning, Bhopal

1898 Union Carbide Company (UCC) formed in Virginia to manufacture calcium carbide.

1914 UCC begins work in India, declaring it will have a 'Hand in Things to Come'.

1930 Two thousand UCC workers die of acute silica-poisoning while constructing a tunnel near Hawk's Nest, West Virginia.

1955 A third of the world's mercury is brought to UCC plant at Oak Ridge. Some 2.4 million pounds are unaccounted for; it is believed that 475,000lb leaks into a creek, and 30,000lb leaks into the air. In 1955 almost half of workers who were tested had dangerous levels of mercury in their urine.

1975 UCC builds plant in Bhopal.

1980 The US Department of Labor, Health and Human Services reports a disturbingly high rate of deaths from brain cancer at UCC's Texas City facility, where 18 workers had died of brain cancer.

1981 *Newsday* reports that over half of UCC's employees in Indonesia suffer from kidney disease due to exposure to mercury levels 20 times higher than considered acceptable in the USA.

1982 UCC inspection team indicates that Bhopal plant is unsafe.

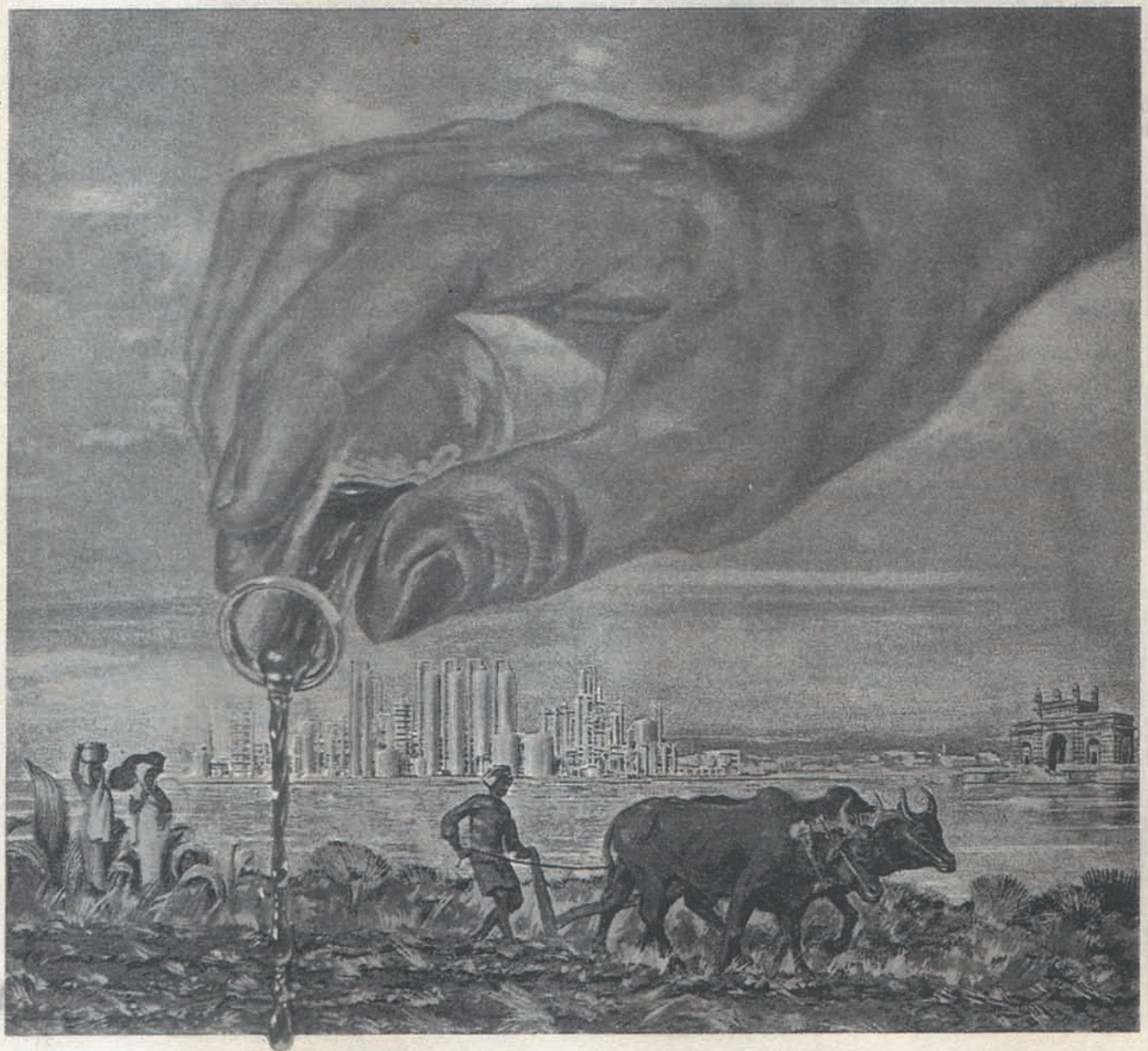
1983 An excess of cancer-related deaths is reported at UCC's plant in Seadrift, Texas. Workers exposed to polyethylene show are seven times more likely to suffer from lymphoma than the general public.

1984 An internal memo UCC's plant in West Virginia warns of a 'runaway reaction that could cause a catastrophic failure of the storage tanks holding the poisonous gas [MIC]'.

2-3 December 1984 An explosion at UCC's Bhopal plant kills 8,000 people, the worst chemical disaster in history.

1991 Explosion at Seadrift plant near Port Lavaca, Texas, kills one and injures 26 others. The plant shutdown costs UCC \$50m.

1999 Dow Chemical buys Union Carbide for \$11.6 billion.



Science helps build a new India

Oxen working the fields . . . the eternal river Ganges . . . jeweled elephants on parade. Today these symbols of ancient India exist side by side with a new sight—modern industry. India has developed bold new plans to build its economy and bring the promise of a bright future to its more than 400,000,000 people. ▶ But India needs the technical knowledge of the western world. For example, working with Indian engineers and technicians, Union Carbide recently made available its vast scientific resources to help build a major chemicals and plastics plant near Bombay. ▶ Throughout the free world, Union Carbide has been actively engaged in building plants for the manufacture of chemicals, plastics, carbons, gases, and metals. The people of Union Carbide welcome the opportunity to use their knowledge and skills in partnership with the citizens of so many great countries.

A HAND IN THINGS TO COME

**UNION
CARBIDE**

WRITE for booklet B-3 "The Exciting Universe of Union Carbide", which tells how research in the fields of carbons, chemicals, gases, metals, plastics and nuclear energy keeps bringing new wonders into your life.
Union Carbide Corporation, 270 Park Avenue, New York 17, N.Y.

Measure for measure, GDP is the world's hidden accounting scandal, the one that neither governments nor media will touch. Jonathan Rowe asks why we worship such a false idol.

Several months ago a professor at the University of North Carolina published research that turned beliefs about the economy upside down. Health improves, he said, as the economy shrinks. And as the economy declines, deaths, smoking, obesity, heavy drinking, heart disease and some kinds of back problems all decline as well.

'Sounds unlikely', said a *New York Times* correspondent. And indeed it is, at least by standard reckonings. We all know that an expanding economy makes us better

off. Or do we? Another study, from the UK, found that shopping, which is the driving force of the entire economy and which is supposed to make people feel good, can actually make us depressed. 'For significant numbers, dissatisfaction is now part of the shopping process,' one of the authors wrote. (As though we needed a study to tell us that.)

What is going on here? How could we feel better when the experts say we should feel worse, and worse we should feel better? Could it be that economists have got it all wrong?

This is the world's hidden accounting scandal, the one that neither the government nor the media will touch. It concerns the accounting for the entire economy, the way the government purports to determine whether things are getting better or worse. This accounting is called the Gross Domestic Product or GDP. It is central to the big policy debate in Washington and is the template for the policies the USA projects upon the world. The media regard it with a reverence bordering on awe. The *Wall Street Journal* recently called the

Grossly Distorting



GDP 'the world's most reliable economic indicator'.

Yet, like the books of Enron and Tyco, economic accounting at governmental level is a sham. It portrays regress as progress, and misery as economic advance. If leaders are really looking for chief executives who cook the books, they might well take a look at their own accounts. They truly are a mess.

Adding nauseam

Imagine an accountant who can add but can't subtract and who is so short-sighted he can't see past his nose. That is the mentality behind the GDP. The GDP simply adds up the the amount of money that people spend and calls the result growth, which equals good,

to bad air get added to the GDP as evidence of the nation's growth. Americans spend over \$5 billion on petrol they burn while stuck in traffic, going nowhere. That's \$5bn more for the GDP. Cook the planet, cook the books and call the result growth.

It's this kind of ridiculous accounting that enables governments to claim that action to address global warming would be bad for the economy. If you define regress as progress, then steps to take us forward look as though they would set us back. What's more, while counting bads as goods, the GDP totally ignores the genuine goods that don't cost money: the air we breathe; the care that parents and grandparents give their

news the next time the Treasury releases the quarterly GDP figures. Is there a single reporter or economist who says: 'Wait a minute. Does this accounting really say what people think it says?'

Not likely. Moreover, they never acknowledge how deep the phoney accounting runs. They might remark occasionally upon the unfortunate side-effects of consumption, what economists call externalities – for example, the way off-road vehicles pollute the air. But the consumption itself is always positive, another step up the mountain of more. 'A nation is by definition thriving if its major indices [such as GDP] say people are making more things and spending more money on them,' a writer in the *New York Times* opined not long ago. 'By definition' means there's no need to observe actual experience and see if it is true.

Blind faith

Yet reporters are supposed to be observers, not theologians, and these talents are desperately needed with regard to the hoary postulates of economic thought. The problem today goes far deeper than externalities. Increasingly the problem is 'internalities', the supposed cornucopia itself. Is the economy really thriving when kids nag their parents for junk food or when credit-card companies rip off their customers with billions in hidden charges? Is it thriving when teen magazines induce a pathological body-consciousness in young girls to the benefit of the cosmetic and plastic surgery industries?

According to a recent test, six out of seven brands of 'off-road' vehicles are designed to incur major damage – worth over \$1400 – from a crash at just five mph. That's GDP for you.

But let's face it. The problem is not just the economy. It's also ourselves.

In the belief system called economics, we all are shrewd little integers of acquisition, who go through life with an unflinching ▶

Perception

regardless of where the money went and why.

So the more medical bills you incur, the more junk food your kids eat, the more you sit in traffic and the more your credit-card company rips you off with hidden charges, the better the economy is doing.

At the same time GDP accounting ignores the implications of expenditures that at face value might suggest advance. Perhaps your neighbour loves her new Renault Clio. Perhaps she regards it as a step up in her life. Still, when she drives the thing, she pollutes the air and adds to pressures to put oil rigs near coastal beaches. She takes up more space on the road, contributing to traffic and causing everyone to burn more gas. Honest accounting would show such costs. The GDP ignores them.

Worse, it actually shows such costs as economic gains. All the petrol, the fender-benders, the medical bills arising from exposure

children; the games children play with one another; the quiet of the night. These are invisible in the national accounts.

Only when the economy destroys them and forces us to buy substitutes do the governmental accountants spring to life. Day care counts but mum-and-dad care doesn't. Driving a car counts but walking does not. The reason is not that government bean-counters are incompetent or ethically challenged. Actually they are top notch. The problem is the antiquated system they are forced to use. It is so out of touch with reality it would be comic – if the consequences weren't so grim.

Thriving on absurdity

The absurdities of all this have not gone entirely unnoticed. Economists and the media reflect upon them from time to time in a feet-on-the-desk kind of way. But they continue to use the GDP anyway. Watch the

calculus of benefit and gain. Since economists believe us all to be 'rational', the sum total of our buying must be the nation's prosperity and good. That's the belief embedded in the national accounting – more buying equals more happiness.

Leave aside for the moment the buying the economy thrusts upon us. Leave aside, too, whether it is really so rational to be obsessed with shopping to begin with. If we simply observe the life around us, what we see is – surprise – a lot of bad choices. We see people who seem in constant lament over the bad choices they have made.

Our bookshops are full of titles for such people. Support groups proliferate for those who can't stop eating, drinking, smoking, falling for the wrong people, spending money they don't have. The pharmaceutical industry is marketing drugs for people who can't stop shopping. And there are myriad counsellors waiting to counsel them.

Yet somehow, when the

accountants put all of these bad decisions together, the result is supposed to be prosperity and growth. And when people start to get control of their lives – when they toss the gin down the toilet, put the credit cards in the freezer and timers on their telephones – we hear dire warnings of a drop in 'consumer confidence' and a 'sluggish' GDP.

Rejecting the hype

For a McDonald's, an Exxon or a General Motors, GDP is of great comfort. It turns obesity and pollution into economic advance, and the perpetrators of these into the heroes of the script. Politicians also like the accounting. It enables them to say that in helping their campaign contributors they are actually helping humankind. Oil drilling in wilderness areas is not a plum for the oil industry, they say. Rather, it's a boost for the GDP.

For the media, meanwhile, the GDP provides a way to turn a complex story into a simple number, one that comes weighted with a

combination of government authority and an economists' expertise. It enables reporters to pontificate about the economies of entire countries without the need to leave their desks. And the fact that the GDP aligns economic reporting with the interests of advertisers doesn't hurt either.

These mental grooves are deep, and they are set in concrete. They are not likely to change any time soon. But that does not mean we have to follow along. The first step to change is to withdraw our consent. The next time we hear the solemn voices on the BBC talk about the GDP and 'growth', we can just chuckle at how out of it they are. As the exposés of corporate corruption have shown to the great pain of many in the USA, phoney accounting can't cover up reality forever ■

Jonathan Rowe is director of the Tomales Bay Institute, California, and a contributing editor of *The Washington Monthly*. *Enough!* is a publication of the Center for a New American Dream.

There are few human misfortunes that do not have a silver lining where the economic mind is concerned. The result is a strange take on the world that permeates the mainstream media yet goes almost entirely unnoted.

- Teenage girls prone to pathological body-consciousness, egged on by images of physical 'perfection' that barrage them in teen magazines, have helped create a teen cosmetic industry worth almost \$25bn annually.
- Americans owe over \$7 trillion in household debt, used to make purchases that boost the GDP. And in a curious twist, the debt interest payments add \$100 billion more.
- For the purchases they don't really need or use, there is the burgeoning self-storage industry and garage extensions on suburban homes to hold the stuff. The accoutrements alone – shelves etc – are expected to become a \$650mn business, according to the *Wall Street Journal*.

- Growth development problems, otherwise known as erectile dysfunction or impotence, are on the increase, which is excellent news for manufacturers of Viagra – in itself a \$1.5bn industry in the USA.
- Over 500,000 Americans contribute to the GDP with purchases on stolen credit cards. Add to this identity theft insurance which costs over \$100 a year per person.
- Economists love web pornography since it adds some \$2bn to America's GDP.
- Gambling is another affliction that contributes impressively to the US GDP – by some \$63.3bn a year.
- GDP also thrives on noise pollution – sound-proofing insulation for an apartment ceiling costs about \$400. And the 5.2m American children who have damaged hearing from listening to their headphones too loud are an investment in the GDP as later in life many will require treatments and hearing aids.
- More than half of Americans are overweight. Yippee! Direct medical costs from diabetes alone add some \$44bn to the GDP. And over 50,000 Americans had their stomachs stapled last year at a cost of around \$20,000 each.

- Manufacturers of soft drinks are targeting children with hyper-caffeinated sodas, with names like Jolt and Code Red. And to calm them down? Easy. Americans spend \$758m on the drug Ritalin. GDP heaven – self-perpetuating supply and demand.
- Approximately one-fifth of America's food goes to waste, and that's not counting the vast amount that ends up as flab. This adds about \$31bn to the GDP, a figure which could feed those who die of starvation each year twice over.
- American motorists sitting in traffic jams spend over \$5bn a year on petrol. In Los Angeles alone the figure is close to \$1bn. Note, coincidentally, that Los Angeles also leads the nation in the number of hospital admissions for respiratory problems – more medical costs, higher GDP.
- Depressed – excellent. Over seven million Americans take anti-depressants. Prozac alone has generated over \$2.5bn a year. Even better, when the Grim Reaper finally arrives, the typical American funeral costs over \$5,000, not counting the price of the cemetery and monument.

BIOLOGY IS... ...AN INTEREST FOR LIFE



INSTITUTE
OF BIOLOGY

What we eat; how we function (even to the smallest active molecule); every creature, microbe or plant that lives and grows in, on and around us – all these subjects and more are studied by biologists. Biological topics and research products are often in the news – this science has truly come of age and is uniquely important in the twenty-first century. The *Institute of Biology* is identifying the issues that matter in this broad-ranging science, promoting a clear understanding and channelling concerns in a constructive way. The Institute is:

Vibrant – with over 1000 new members each year.

Proactive – identifying tomorrow's hot topics.

Influential – responding to consultation requests from Parliament.

Supportive – careers information, discounts, networking and education.

Interactive – journals, discussions, links, advice and jobs online.

Biologist is a publication unlike any other available today, bringing biology to life with stimulating and authoritative reviews. Whether you are a student, a researcher, a captain of industry, or simply interested in science, you are certain to find something new and intriguing within each issue. *Biologist* is rich and colourful, published six times annually, and **free** to all members.

If you would like to get the best information in this fast moving world, join a network of like-minds in your local community, become involved in the development of the biological profession, and unite the *Voice of British Biology*, simply complete the form below to request more details or **visit our website at www.iob.org**.

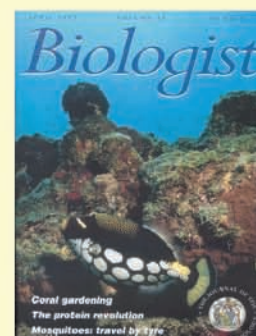
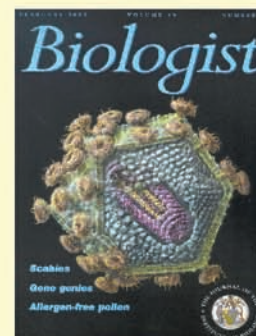
The *Institute of Biology* is ***The Voice of British Biology***

Name
Address
Postcode
Email

ECOL0103

- I want my **free** copy of *Biologist* and your information pack.
- I am a professional life scientist.
- I am interested in learning more, but am not working/ qualified in biology.

Please return to **Institute of Biology, 20 Queensberry Place, London, SW7 2DZ.**
Tel: 020 7581 8333; Email: biologist@iob.org



Registered charity
number 277981

American Heat: Ethical Problems with the United States' Response to Global Warming

Donald A Brown

Rowman & Littlefield 2002

ISBN 0-7425-1296-7

Reviewed by Matthew Cohen



Brown analyses the USA's obstructive stance on global warming from a perspective that is too often neglected – that of its ethical

dimension. In this way he makes clear the USA's position is untenable. It contributes to global warming more than any other country and in economic terms it is in the best position to do something about it, yet it is doing the least. For the world to understand how to share the burden of responsibility, Brown argues, we need to see the problem morally, as well as scientifically and economically.

The Quest for Sanity: Reflections on September 11 and its Aftermath

Edited by the Muslim Council of Britain

MCB Books 2002

ISBN 0-9543652-0-8

Reviewed by Anne Levers



With more than 30 contributions, by both Muslims and non-Muslims, *The Quest for Sanity* is a powerful attempt to explore the

complex range of emotions felt in the aftermath of 11 September 2001. Covering issues such as Islam and the media, the historical roots of Islam in the UK and today's need for dialogue between faiths, the book deserves to be read by all seeking a deeper understanding of the issues underlying the current push of world events.

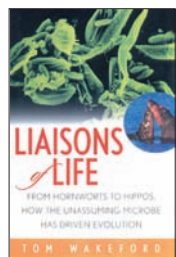
Liaisons of Life: how the Unassuming Microbe has Driven Evolution

Tom Wakeford

Wiley 2002

ISBN 0-471-39972-8

Reviewed by Doug Bebb



Rejecting the determinism of Richard Dawkins' selfish-gene theory, Wakeford discusses a marvellous and more radical

alternative – that life is marked by symbiotic relationships in every kingdom of life. Tracing the political background to the development of evolutionary theory over the last century, *Liaisons of Life* helps reconnect us with the world to which we all belong.

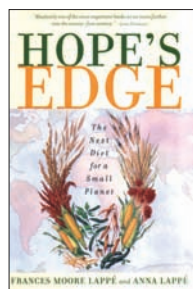
Hopes Edge: the Next Diet for a Small Planet

Frances Moore Lappé and Anna Lappé

Tarcher Putnam

ISBN 1-58542-149-9

Reviewed by Jeremy Smith



Thirty years ago Frances Moore Lappé's book *Diet for a Small Planet* exposed the myths behind fears of global

food scarcity. It showed how we can all choose to eat in ways that are better for ourselves and the planet. It sold more than three million copies. With the help of her daughter she returns to these issues in the light of corporate globalisation in *Hope's Edge*. The book crosses continents, telling stories of activists, farmers, peasants and communities across the world fighting to reclaim their food and their sense of self from the hands of multinational oppression.

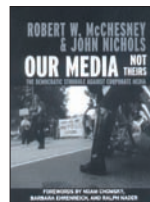
Our Media, not Theirs: the Democratic Struggle against Corporate Media

Robert W McChesney & John Nichols

Seven Stories Press 2002

ISBN 1-58322-549-8

Reviewed by Jeremy Smith



Written by two of the USA's most respected media critics, with forewords by Noam Chomsky, Ralph Nader and Barbara

Ehrenreich, this is a little book with a big voice. Not only does it expose the mess in which our corporatised media is currently miring itself – with all the attendant restrictions on true democracy – but it offers a way out. In the words of Patti Smith, this is 'an astute analysis offering compassionate solutions'.

Israel/Palestine: how to End the War of 1948

Tanya Reinhardt

Seven Stories Press 2002

ISBN 1-58322-538-2

Reviewed by Jon Napier



Written by an Israeli and based primarily on sources from the Israeli media, this is both a ravaging critique of the Israeli

government's policy towards the Palestinian people and an

excellent historical account of the conflict, from Oslo to the present day. Reinhardt's work is well researched, well timed and worthwhile reading for those who want to understand the conflict's recent history better. It also gives a serious proposal for a resolution to a conflict now regarded by many as intractable.

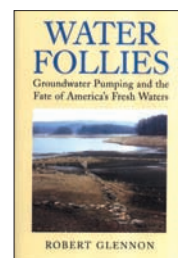
Water Follies: Groundwater Pumping and the Fate of America's Fresh Waters

Robert Glennon

Island Press 2002

ISBN 1-55963-223-2

Reviewed by Jeremy Smith



Water, so we are repeatedly told, is going to be the next big issue. Droughts, dams and depleted fisheries, they all have their

part to play. However, as Robert Glennon reveals in this well-researched book, there is a deeper problem that no one has mentioned – that of groundwater, and the impact that pumping it to the surface is having on the environment. So how big is the issue? Put it this way: each year the USA takes 28 trillion gallons from its aquifers. But groundwater is an essential part of a cycle that provides fresh water to lakes, rivers and streams and disrupting this cycle is causing irreversible damage.

Who will Feed China? Wake-up Call for a Small Planet

Lester R Brown, Norton (1995)

ISBN 0-393-31409-X

Using China as a case study, Lester Brown exposes the inherent flaw of basing our economic system on perpetual growth. 'There is no precedent by which to assess the extraordinary growth in the demand for food that is occurring in China today,' he wrote in 1995. He noted that it in the early 1990s its economy was growing 'at double-digit rates – 13 per cent in 1992, 13 per cent in 1993, 11 per cent in 1994 and an estimated ten per cent in 1995.' While the figures revealed in this book are alarming in themselves, they are even more so in light of China's recent acceptance into the WTO, which will result in an acceleration of all these trends. Brown points out that if China succeeds in its aspiration to industrialise on a scale comparative to countries such as the UK and the USA, then the world will not be able to sustain that one country's needs, let alone those of the rest of the world.

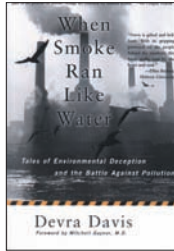
When Smoke Ran like Water

Devra Davis

Perseus Press 2002

ISBN 1-903985-50-1

Reviewed by Jeremy Smith



Devra Davis is a world-renowned epidemiologist, senior advisor to the World Health Organisation and a member of the

Intergovernmental Panel on Climate Change. She is therefore in a better position than most to understand the effects of environmental pollution on public health. What sets this book apart is that, as well as understanding the issues, she really can write too. From the London smog of 50 years ago to breast cancer and global warming, Davis makes it clear that our attitude towards public health needs a wholesale rethink.

Perpetual War for Perpetual Peace

Gore Vidal

Clairview 2002

ISBN 1-902636-38-4

Reviewed by Jon Napier



With his distinctive mixture of hard nosed satire and seriousness, Gore Vidal questions the comfortable conclusions the US public have

reached in the wake of its two most indelible events of the last decade – the attacks of 11 September 2001 and Timothy Veigh's bombing of the federal building in Oklahoma City in 1995. Vidal refuses to be steamrollered by the weight of 'received wisdom', arguing that the USA is engaged in an Orwellian perpetual war for perpetual peace and that the much-maligned evil-doers, as portrayed in the corporate media, are themselves a product of the past actions of the American government. Vidal is far from an apologist; rather he injects a vein of rationalism into the conclusion arrived at so far: we are good, they are evil.

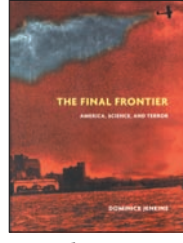
The Final Frontier: America, Science and Terror

Dominick Jenkins

Verso 2002

ISBN 1-85984-682-3

Reviewed by Jon Napier



This is an authoritative account of the roots of the links between the state, science and technology, weapons of

mass destruction and perceptions of the 'enemy'. Dominick Jenkins' provocative and original work highlights the relationship between the US presidency and American weapons laboratories, from the First World War to the present day. Through meticulous analysis of events 90 years ago, he shows how American leaders have been manipulating society for their own ends under the banner of the War on Terror. *The Final Frontier* is a call for resistance against the return of the empire and a heartfelt manifesto for the peace movement now emerging throughout the world.

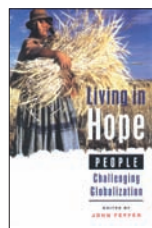
Living in Hope: People Challenging Globalization

edited by John Feffer

Zed Books 2002

ISBN 1-84277-1531

Reviewed by Jon Napier



One often wonders what there is to be positive about in today's world. Globalisation is perceived as an all-pervading conquering force

that is overwhelming all those not sufficiently 'developed'. In doing so we are in danger of ignoring the billions of people who are building alternative systems of their own. From the grassroots of societies and cultures across the world *Living in Hope* collects the stories of people creating these alternatives, which together paint a vision of hope for the future. Necessity is truly the mother of invention and this book is testimony to the Davids of our world and their inventions.

As temperatures have been rising, the planet's polar ice caps have begun to melt, the coral reefs to die and record-breaking weather events have struck the world over.

- With higher temperatures, the Intergovernmental Panel on Climate Change predicts malaria will affect 60 per cent of the world's population – a rise of 30 per cent – by the second half of the century and that it may reach Europe and North America;
- 30 of the world's largest cities lie near coastlines: a one-metre rise in sea levels would put an estimated 300 million people directly at risk of flooding. The same increase could also affect 30 per cent of the world's farmland;
- Since 1950, coal use around the world has more than doubled, oil use has increased eightfold and natural gas use twelvefold. Yet Europe's off-shore wind potential in waters of 30 metres or less could supply all the continent's power needs.



- www.ipcc.ch The Intergovernmental Panel on Climate Change. The principal scientific authority on climate change. All of its major reports are available on its website.
- www.climateark.org an internet portal for climate news, policy and reports.
- www.guardian.co.uk/climatechange Reliable for breaking climate change news.
- www.gci.org.uk Global Commons Institute, home of contraction and convergence.
- www.climateactionnetwork.org The site of the Climate Action Network
- www.foe.co.uk Friends of the Earth
- www.seen.org Sustainable Energy and Economy Network
- www.risingtide.org.uk An international coalition of grassroots climate groups.
- www.corpwatch.org Focuses on the fossil-fuel cartel.
- www.unfccc.int/resource/docs/convkp/kpeng.html Full text of the Kyoto Protocol.

Climate Change 2001: the Scientific Basis by the IPCC

The most comprehensive and up-to-date scientific assessment of past, present and future climate change.

The Heat is On by Ross Gelbspan

An excellent discussion of climate politics in the USA, with lots of detail on the climate skeptics and their funding.

The No-Nonsense Guide to Climate Change by Dinyar Godrej

A good introduction to the science and formative international agreements.

Dead Heat: Global Justice and Global Warming by Tom Athanasiou & Paul Baer

A clear, concise, passionate and convincing book on why it is imperative that we tackle climate change now.

The Ecologist Special Report on Climate Change November 2001

Our most recent report on climate change. To order a copy call 020 7351 3578

Stormy Weather: 101 Solutions to Global Climate Change

by Guy Dancy and Patrick Mazza.

Compulsory reading for all those in the White House and Downing Street.

● www.stopesso.com The quintessential campaign. There's no such thing as a good oil company and Esso stands out as the worst, unwilling as it is to make any efforts towards mitigating the damage done by fossil fuels.

● www.futureforests.com Absorb some of the carbon dioxide you produce by sponsoring your own tree.

● www.co2.org More ways to offset some of your carbon dioxide emissions.

● www.chooseclimate.org Besides featuring a sophisticated, interactive climate model, the site has an excellent carbon dioxide calculator for estimating air-travel emissions. Check it before you next fly.

ecologist classified

Iceland - an adventure in whale and dolphin conservation.

Join WDCS for the experience of a lifetime with blue whales, orcas and other wildlife in the land of ice and fire
5 - 13 July 2003



out of the blue
Visit www.bluetravel.co.uk
or call 01249 449533 for more information

part of the blue is the licensed subsidiary of the Whale and Dolphin Conservation Society (charity no: 1014700) through WDCS Trading Ltd (Company Reg No: 2532112) which concerns all post fee points to this charity. Photos used © Royal N. Wood, others © Mark Czerwik

WDCS

Conservation Adventure Research Education

Wild Horizons Research Expeditions
Wildlife Adventures

Incredible journeys of discovery
in the natural world...

Dedicated to humpback whale research

www.wildhorizons.org

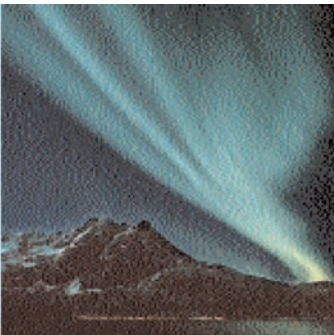
Innovation Centre, University of Wales Swansea, SA2 8PP, Wales, UK or Email info@wildhorizons.org

*Kayaking with humpbacks in Alaska *Swim with Wild Dolphins *Sperm Whales in Dominica *Manatees


EXPEDITIONS
MONDIAL
Presents

**"MYSTERIOUS SKIES
OF THE
ARCTIC CIRCLE"**

A LONG WEEKEND IN
TROMSØ, UNFOLDING THE
MYSTERIES OF THE
AURORA BOREALIS



AN INTRODUCTION TO
ARCTIC LIFE & HISTORY
AT 70° NORTH, AND THE
THRILLING EXPERIENCE
OF DOG SLEDDING
THROUGH THE
NORWEGIAN
COUNTRYSIDE

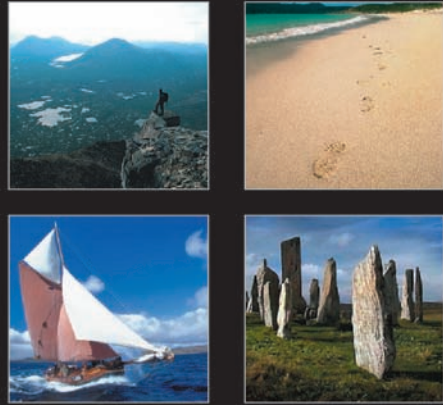


* JANUARY WEEKENDS CAN BE EXCITING - JOIN US * *

A few places left - Call: 020 7433 0180
or email: sendmeabrochure@expeditions-mondial.net

ATOL 3664 IATA 9122928

**wilderness
scotland**



**Wilderness Walking
Sailing and Walking
Wilderness Expeditions
Historical Journeys
Canoeing and Kayaking**

Unique wilderness experiences in the Highlands of Scotland
Phone Wilderness Scotland on 0131 6256635
email: info@wildernessscotland.com

Please contact us for a full-colour brochure and further information

www.wildernessscotland.com

NHBS Mailorder Bookstore
for the best books on earth, worldwide

nhbs.com offers a searchable **web** catalogue with
over **85,000** titles in natural history, wildlife,
conservation, and environmental subjects.

EXCELLENT SPRING OFFERS!

South East ASIAN NATURAL HISTORY PROMOTION
130 titles at up to 25% off - ends March 2003
see: www.nhbs.com/nhbs-seasia

WORLD WILDLIFE GUIDES OFFER
100 of the top world guides at up to 25% off - ends March 2003
see: www.nhbs.com/world-guides

shop online at nhbs.com

- Secure ordering via the unique NHBS shopping trolley
- Over 85,000 titles with quick & easy search facilities
- Updated regularly with the latest titles & offers

please quote 'EC02' in reply

NHBS, 2 - 3 Wills Road, Totnes, Devon TQ9 5XN, UK
Email: ecol@nhbs.co.uk Web: www.nhbs.com/ecol
Tel: +44(0)1803 865913 Fax: +44(0)1803 865280



nhbs.com

BLACK TREE COTTAGES

Unique hideaway 1000m above the Lycian Coast in Turkey, run in a socially and environmentally sustainable manner. 9 Cottages of different sizes, sleeping 2-7people. Renovated stone or timber houses, well equipped with cookers, refrigerators, and showers. Swimming pool and restaurant/bar on site. Excellent walking, mountain biking, horseriding and a wealth of culture and nature. Good centre for exploring.

**For details: Tel: 01489 896686;
E-mail: akl@hawker.clara.co.uk**

Evergreen

Seeking Friends/Soul-mate?
Nationwide service for all age groups
with similar interests

Free details: *Evergreen, PO Box 147,
WALTHAM CROSS, EN7 6BZ*

Telephone: 01992 632250
Or 0845 456 1274
(local rate call from anywhere in UK)

Or visit our website:
www.evergreenagency.co.uk

DOLPHIN RESEARCH

Zodiac based, bottlenose dolphin
study with AWF researchers
in Los Gigantes, Tenerife.
**£295pw inclusive
quality accommodation.**



Canarynature.com Tel: 0207 590 7919

ORGANIC WINES

by mail order



Free list from Vinceremos

74 Kirkgate, Leeds LS2 7DJ
email: info@vinceremos.co.uk
www.vinceremos.co.uk

0800 107 3086

TRY OUR ECO-CASE -
12 organic wines for £55 delivered
(GB mainland only)

vinceremos
Organic Wines

we've been walking for 8 years

During our 8 year history we have helped over 6,000 people raise money for the world's poorest communities. Across the UK's mountains our track record stands out - 1,000 successful corporate teams, and over 50 Mountain Challenge Events

and we've raised over £5MILLION!

In recognition of our 8 years of achievement, the CARE Challenge Series 2003 consists of 8 mountain challenge events for teams of 5-7 walkers. The series will run from May to August next year.

Do something exciting and rewarding in 2003.

Call the Challenge Team on 0118 951 3030, or email challenge@cluk.org. Alternatively visit www.challenge-series.co.uk.

Our Challenges follow a strict environmental code of conduct in order to protect the environment. All events raise money for CARE International UK, a global humanitarian organisation working to end poverty.

Kit sponsor for CARE Challenge Series 2003 events are Cotswold Outdoor.

COTSWOLD
OUTDOOR



where the end of poverty begins
Registered Charity No. 292506

www.onevillage.org

0845 4584 7070

One place is home...



www.onevillage.org

TO ADVERTISE PLEASE CALL JULIE ON

020 8962 3026 OR EMAIL

julie@thinkpublishing.co.uk

The Albion Canvas Co

**Yurts, Tipis, Domes, Arab Tents
Bespoke Canvas Work
Garden Gazebos, Bell Tents**

For a free catalogue or enquiries,

Tel. 01803 762230

www.albioncanvas.co.uk

Craftsman built wood and canvas tents

THE GREEN STATIONERY COMPANY
COMMUNICATING

The Green Stationery Company is the complete green office supplier. We stock laser, inkjet and copier papers, fax and listing papers, labels, envelopes, pads, packaging, files and desk accessories, all made to the highest quality recycled specification. We print letterheads, remanufacture guaranteed laser and inkjet cartridges and many machine consumables including green disks. We also hold a complete range of original printer cartridges and magnetic media.

CALL US FOR A FREE
COPY OF OUR CATALOGUE

TEL: 01225 480556

FAX: 01225 481211

Nationwide free delivery on orders over £80

All major credit cards accepted for telephone orders

STUDIO ONE
114 WALCOT STREET
BATH BA1 5BG

TEL: 01225 480556

FAX: 01225 481211

E-MAIL: jay@greenstat.co.uk
<http://www.greenstat.co.uk>

CONSERVATION

No Place Like Home LOCALISATION IN ACTION

Findhorn Ecovillage
International Conference
April 19-25 2003

Helena Norberg-Hodge
Dr. Caroline Lucas
Richard Douthwaite
Peter Harper
Dr. Vinya Ariyaratne
Pooran Desai

www.findhorn.org/home

and speakers from
The Soil Association ·
New Economics Founda-
tion · Centre for
Alternative Technology
· Global Ecovillage
Network · BioRegional
Movement of the Amer-
icas · University for the
Study of Human Good-
ness · Dyfi Eco-Valley
Partnership

For further information
contact the conference
office
Tel: +44(0)1309 691933
e-mail:
conference@findhorn.org

Founded in 1823 and based in
Bloomsbury, Birkbeck has the
highest proportion of
research-active staff of any
university in London.



Postgraduate study in environmental policy

MSc Business Strategy, Politics and the Environment

School of Management and Organizational Psychology

This programme analyses the influence of ecological issues on business strategy in both the public and private sectors. It is management-based but genuinely inter-disciplinary, incorporating environmental regulation, business strategy and environmental politics modules; but with a strong unifying focus on analysing practical management strategies for addressing environmental pollution problems. It is also available as an MSc by Research, MRes or Postgraduate Diploma.

MA/MSc Science, Culture and Environment

School of Biology and Chemical Sciences

This programme focuses on the interrelationships between science, human culture, technology and the natural world. It brings together key scientific ideas that have shaped contemporary life, and critiques and analyses offered by a broad range of thinkers from the sciences, social sciences and cultural studies. The courses are for students with a variety of backgrounds and interests who are interested in expanding their understanding of, and practical engagement with, science in contemporary political, intellectual and social life.

Both programmes take place over one year full-time or two years part-time, by evening study.

For further details and application forms, please call 0845 601 0174, email admissions@bbk.ac.uk or check our website: www.bbk.ac.uk

Insight, Passion and Skills to make a difference

MSc Human Ecology

Core courses on ecological, scientific and qualitative thinking; social and ecological justice; and change skills for sustainable development.

- Nonviolence
- Biodiversity
- Spiritual Activism
- Food & Agriculture
- Art, Creativity & Nature
- New Economics
- Ecopsychology
- Individual Study Programme

Options in:

Weekend schools and home study, full or part time, one or two years. Validated by Open University. MSc, Diploma & Certificate options.

0131 624 1974 (fax 0131 228 9630)
12 Roseneath Place, Edinburgh
EH9 1JB, Scotland
www.che.ac.uk
info@che.ac.uk



BROCKWOOD PARK SCHOOL



www.brockwood.org.uk



More like a large vibrant family than a boarding school, with 60 students aged 14 -19 from around the world, Brockwood Park offers a totally different way of learning.



Classes have 7 students on average, so teachers can give individual attention to students' academic studies whilst nurturing in them human qualities. Enquiry about all aspects of life is encouraged, as teachers and students live, study, work, play and inquire together.



Set on a large country estate, we have an active environmental programme and vegetarian diet sourced mainly from the schools own organic garden.

To find out more visit www.brockwood.org.uk or contact Claire Little, Brockwood Park School, Bramdean, Hampshire, SO24 0LQ, UK.
Tel: 01962 771744, Fax : 01962 771875
Email: enquiry@brockwood.org.uk

Founded in 1969 by J.Krishnamurti. Part of Krishnamurti Foundation Trust Registered Charity No. 312865

Turn off your television

Best of the alternative press to expand your mind, loosen your brain and broaden your horizon.

Prestel
Munich London New York

Living Jewels
POUL BECKMANN
Introduction by Ruth Kaspin



"a beautiful book that should appeal to anyone who retains a sense of awe and wonder at the sheer extravagance of nature." *Times Higher Education Supplement*

"An idea of their [beetles'] sheer variety is conveyed in this lavish book." *The Financial Times*

112 pages with 192 colour illustrations.
Hardcover. ISBN 3-7913-2528-0. £24.95

Xtreme Houses
Courtenay Smith and Sean Topham



From inflatable shelters for the homeless to houses made from recycled tin-cans, this lavishly illustrated, exhaustively researched collection of 45 amazing houses from around the world shows how we have responded to overpopulation, suburban sprawl, environmental pollution, and dwindling resources.

176 pages with 180 colour illustrations.
Softcover. ISBN 3-7913-2789-5. £22.95

Prestel books are available worldwide. Please contact your nearest bookseller or call Prestel on +44 (0)20 7323 5004. www.prestel.com

BLUE GUIDES

Travel through a world packed with culture, art, architecture & history
'The companion of enlightened travellers for many decades.'
Times Higher Education Supplement

NEW BLUE GUIDE UMBRIA
4th edition
Alta Macadam
0 7136 6277 8
paperback £13.99



Over 60 TITLES available

BLUE GUIDE UMBRIA
8th edition
Alta Macadam



Available from bookshops
For more information contact
A&C Black, PO Box 19,
St Neots, Cambs, PE19 8SF
t: 01480 212666
f: 01480 405014
e: sales@acblack.com

www.acblack.com

EARTHSCAN

THE MONEY CHANGERS
Currency Reform from Aristotle to E-Cash
David Boyle

'David Boyle is the finest radical voice of this generation'
Ed Mavo, Executive Director, New Economics Foundation

Hb £17.95 1-85383-895-0

BLUE GOLD
The Battle Against Corporate Theft of the World's Water
Maude Barlow and Tony Clarke

'Clarke and Barlow do an admirable job of presenting a shocking, depressing, almost insurmountable problem... how the planet is being milked dry by exploitation of nonrenewable underground aquifers'
QUILL AND QUIRE

Hb £20.00 1-85383-937-X

INFORMATION FEUDALISM
Who Owns the Knowledge Economy?
Peter Drahos with John Braithwaite

'A fascinating read for anyone interested in how the rules of the global knowledge economy are set'
JUSTIN FORSYTH, Director of Policy, Oxfam GB

Pb £12.00 1-85383-917-5 • Hb £35.00 1-85383-922-1

THE SUBSIDY SCANDAL
How Your Government Wastes Your Money to Wreck Your Environment
Charlie Pye-Smith

A fascinating account of 'perverse subsidies' and the damage these do to the environment and society.

Hb £17.99 1-85383-902-7

www.earthscan.co.uk
Further information • Discounts • Monthly e-bulletin
120 Pentonville Rd London N1 9JN UK • Fax: +44 (0)20 7278 1142

PLUTO PRESS
Independent Progressive Publishing www.plutobooks.com

PROPAGANDA AND THE PUBLIC MIND
BY DAVID BOYLE
NOAM CHOMSKY

NOAM CHOMSKY
Pirates and Emperors, Old and New
International Terrorism in the Real World
0-7453-1980-7 £12.99 Nov 2002

ROGUE STATES
The Rise of a New World Order
NOAM CHOMSKY

Publisher of Noam Chomsky, Vandana Shiva, John Pilger and other key dissenting voices of our times

ECOCIDE
A Short History of the Rise, Extension of Species
FRANZ BROSWIMMER

Beyond September 11
An Anthology of Dissent
Edited by Paul Gilroy

WATER WARS
PROLIFERATION, POLLUTION, AND PROFIT
VANDANA SHIVA

available from all good bookshops

REACH OVER 100,000 ECOLOGIST READERS

Call Belinda Bush on 020 7351 3578 or email belinda@theecologist.org

APPEALS

Oxfam's Bring Bring scheme. Please recycle your old mobile phone through Oxfam and help people all over the world to work their way out of poverty. On average each working mobile donated is worth £5. Simply hand it in at any Oxfam shop or visit www.oxfam.org.uk for freepost or courier-collection information.

Green Network Breast Cancer Campaign has decided to initiate our own scientific research into the cause and prevention of breast cancer. We need your help and support. If you would like to support us financially or in kind please contact Vera Chaney, National Organiser, Green Network UK, 9 Clairmont Road, Lexden, Colchester, Essex, CO3 5BE. For more information call 01206 546 902 or visit www.green-network.org.uk/breast_cancer

The International Otter Survival Fund (IOSF) is dedicated to the conservation of all 13 species of otter worldwide. IOSF always needs funds to help our work in practical conservation, scientific research, otter rescue, rehabilitation and education. Projects both in the UK and abroad. For more information contact IOSF, Broadford, Isle of Skye, IV49 9AQ. Tel/FAX: 01471 822 487; email: info@otter.org

BUSINESS OPPORTUNITIES

Pyrenees eco-development. Please join us in renovating a beautiful thermal spa and residence with flats and guest rooms. So far 66 solar panels provide hot water and underfloor heating. For additional information email ecomundi@teletelne.es

CAMPAIGNS

Breast is Best. Please stop buying Nestlé products and write to tell Nestlé that you support the boycott. For a sample letter and full details of all Nestlé products visit www.babymilkaction.org/pages/boycott

Support local producers. Buy locally produced food. For more information contact the National Association of Farmers on 01225 787914 or visit www.farmersmarkets.net

The Ban Lindane Campaign. Lindane is a pesticide linked with serious health problems including breast cancer and disruption of the endocrine system. For further information or to join the campaign visit: www.pan-uk.org/banlindane

Stop Esso... It doesn't give a damn about global warming. Esso is doing more than any oil company to sabotage international action on global warming. Join thousands of people and boycott Esso. For further information visit www.stopesso.com

Fairtrade banana campaign.

Fairtrade bananas are widely available in Sainsbury's, Co-op and Waitrose supermarkets, but not in others such as Tesco, Asda and Morrison's. Please use your consumer power to encourage these shops and others to follow suit. For further information visit www.bananalink.org.uk



Ecotourism Watch is a new online initiative that provides information about international tourism and ecotourism developments with environmental implications. For further information visit www.ecotourismwatch.org

The Women's Environmental Network is campaigning for safer cosmetics. Modern cosmetics and toiletries contain synthetic chemicals that threaten human health and the environment. For further information or to join us email localgroups@wen.org.uk

THE CLIMATE VIGIL 3 February, London, UK (and every Monday) The Climate Vigil has been maintained every week since November, 2000, the day the Hague Climate Talks broke down, due to the intransigence of the US in refusing to do their share in the fight against climate change. North West corner of the Grosvenor Square gardens nr American Embassy, (Bond Street tube). Contact philthornhill@yahoo.com www.campaignagainstclimatechange.net



CAREERS

Growing careers. A website featuring a wide range of rewarding and challenging career options for any jobseeker in the following sectors: fresh produce; nurseries and garden centres; landscaping, gardens and design; environment and conservation; horticultural and land-based engineering. www.growing-careers.com

ENDS environmental job search

New appointments and training opportunities in various fields including contaminated land consultancy, project development management; and air-quality consultancy. Updated weekly. www.ends.co.uk/jobs

Campaign officer wanted

Liberty is looking for a criminal-justice campaigns officer to assist with its campaign on the government's recently published Criminal Justice Bill. The bill presents Liberty with one of its greatest challenges in recent years. The job will involve lobbying parliamentarians, liaising with other NGOs and supportive individuals and assisting with policy, research and media work. The post is fixed term and full time and will end on 31 July 2003. To apply send a CV and covering letter outlining your suitability for the job to joannag@liberty-human-rights.org.uk. Further information about Liberty visit www.liberty-human-rights.org.uk

COURSES



Global Resonance's Diversity and Social Responsibility Incorporated Spring Festival 2003

PLANTING THE TALL TREES
The Long View of Corporate Citizenship 14th and 15th May 2003 This course will give you time, space and tools to explore your vision of 'corporate citizenship'. You will link this vision to your organisation and to your personal life, and you will let loose your passion to make change happen. Specialist input from Warwick University Business School's Corporate Citizenship Department will keep our feet on the ground.

DECISIONS IN CRISIS

The Dynamics of Responsible Action 15th April 2003. This live action simulation, again with specialist input from Warwick University, will explore through participants taking up a range of stakeholder roles, the dilemmas inherent in decisions around ethical issues like child labour, biodiversity, poverty and environmental disaster. You will experience a range of perspectives: government, boardroom, NGOs and Trades Unions and you will reflect on the personal, group and organisational dynamics that influence decision-making.

Main website: www.globalresonance.com
Please mail paul@globalresonance.com for more details.

'Taking Corporate Responsibility Seriously'. Seminar at Schumacher College, Dartington, Devon, from 30 March to 4 April. What does it mean to be a truly responsible corporation? Guest speakers include Anita Roddick, Mark Ritchie and Dr Alan Knight. For further information call 01803 865934

Lake Baikal Ecotour. 31 July to 21 August 2003. Join renowned photographer and author Boyd Norton and Gary Cook, director of Baikal Watch (a project at Earth Island Institute), for a special three-week ecotour to Lake Baikal this summer. Email: baikalwatch@earthisland.org

INFORMATION RESOURCES

Green Solutions. How green are you? Advice on green issues for the home, from composting and energy efficiency to green investment. info@green-solutions.com

The Good Alternative Travel Guide.

A useful guidebook giving details of community-based tourism worldwide – tourism that is controlled by and benefits local people. It's full of information about responsible travel and useful contacts. Price £9.99 (plus £1.50 p&p UK, £3 overseas). To purchase with Visa/Mastercard call 020 7753 3330 or visit www.tourismconcern.org.uk

Planet Friendly. A popular e-mail newsletter and website that provides information about events, resources and opportunities associated with sustainable living and environmental, community and social issues. www.planetfriendly.net

Organic Food Days. Elm Farm Research Centre holds organic food days four times a year, organises educational visits and runs a variety of training talks and seminars for farmers and growers. For a programme call 01488 658298 or email judith.t@efrc.com

Shop ethical. An online ethical shopping directory featuring links to ethical goods and services, ethical organisations, fair trade and socially responsible traders. It is a UK-based limited company that covenants all its profits to environmental and charitable causes. www.shopethical.co.uk

ASEED

Action for Solidarity, Equality, Environment and Diversity is a global organisation linking youth groups and individuals on all continents. ASEED targets the structural causes of the environment and development crisis and campaigns against the international financial institutions and free-trade agreements. www.aseed.net

Intentional Community provides information on eco-villages, co-housing, residential land trusts, communes, student co-ops, urban housing co-operatives and other related projects and dreams. www.ic.org

Oneworld.net is an online magazine with news, features and special reports that focus on human rights and sustainable development. www.oneworld.net

ecologist newsagent order form

To receive your regular copy of *The Ecologist*, fill in this form and take it to your local newsagent

Name _____
Address _____

Postcode _____
Telephone number _____

NO FT, NO COMMENT • NO ECOLOGIST, NO PLANET

LAUNCHES

GOOD FOOD FOR ALL!

Join the **East Sussex Food and Health Partnership** at the launch of its food action programme. Current initiatives cover food in schools, horticulture, farmers markets, village shops, community food projects, food in residential homes and an outreach project. Wednesday 12 February at Hillcrest Community Centre, Newhaven. Friday 14 February at Brede Farmers Market, nr Rye. For further information call Fay Baker on 01273 403635 or email fay@foodandhealth.org.uk www.foodandhealth.org.uk

VOLUNTEERS NEEDED

Green Volunteers lists projects and organisations connected with a wide range of species, habitats and locations. There are large international organisations with many world-wide projects as well as smaller organisations based in developing countries which focus on particular species or habitats. Examples of programmes include the Orkney Seal Rescue Centre in Scotland and the Sea Turtle Conservation Program in Costa Rica. For more information call 01767 262481 or visit www.greenvol.com

Coral Cay Conservation is recruiting volunteers to assist with vital work on the Negros Rainforest Conservation Project (NRCP). The NRCP is a collaborative programme of research, conservation and education on Negros Island in the Philippines. Volunteers have the unique opportunity to live with and work within a local community and contribute to the conservation work of a local organisation. For more information call 0870 750 0668, email info@coralcay.org or visit www.coralcay.org

Join WWOOF. World Wide Opportunities on Organic Farms (WWOOF) is dedicated to helping those who would like to volunteer on organic farms and supporting the work of such farms in the process. WWOOF compiles an international list of organic farms that welcome volunteers. Join WWOOF to receive a copy. For more information visit www.wwoof.org

The Institute of Cultural Affairs (ICA) is a global network of private, non-profit, non-governmental organisations concerned with the human factor in world development. The Volunteer Service Programme of the ICA is for those interested in volunteering overseas. It offers short courses for the orientation, training and preparation of volunteers and a small number of placements each year. www.ica-uk.org.uk

Volunteers at Friends of the Earth carry out a variety of administrative support work, from helping with mail-outs and press cuttings to assisting with research and information gathering. You can volunteer at the head office in London, at a regional office, with a local group or overseas. Tel: 020 7490 1555 or visit www.foe.co.uk/press_for_change/volunteer

WANTED

Work placement required by second-year student studying for a BSc in environmental science. In 2003, as part of my course, I am required to undertake a year's placement in a relevant industry. I would greatly appreciate any information about any placements that anyone may have. I am particularly interested in environmental journalism and policy making. Email: pink_pixie_42@hotmail.com



VOLUNTEERS WANTED

To work as an intern at **The Ecologist** please email Belinda@theecologist.org

HELP
her fight hunger



NAME AND PHOTO ARE REPRESENTATIVE TO PROTECT OUR BENEFIICIARY

Amona knows what hunger is. Her family are facing starvation – but you could help her fight famine, with ITDG. ITDG is helping people in Africa build and use donkey-drawn ploughs that are simple and uniquely effective. Each furrow holds more moisture during drought, yields more crops and so brings more food. Enough to feed the family, year after year after year.

Give £20, and you could help Amona get an ITDG donkey plough too – and help her fight hunger for good.

Every day, more families like Amona's can only watch as hunger draws closer. So please, make your gift to ITDG today.

HERE'S MY GIFT TO HELP FIGHT HUNGER

£20 or my own amount of £ _____

Title _____ Name _____

Address _____

Postcode _____

I'd like to give by

Cheque/PO/CAF Voucher made out to ITDG **OR** 02/NA/04

Visa/Mastercard/CAFCard/Switch/Solo (delete as appropriate)

□□□□ □□□□ □□□□ □□□□ □□

Valid from □□ □□ Expiry date □□ □□ Issue no □□ □□ (Switch/Solo only)

Signature _____

1998 Data Protection Act
ITDG promises NOT to pass on your personal details to any third party. ITDG keeps a record of your details for administrative and marketing purposes only. If you do not wish us to contact you again, please write to our data controller at the address shown. Thank you.

Please return to: ITDG, FREEPOST CV1753 Bourton-on-Dunsmore Rugby CV23 9BR

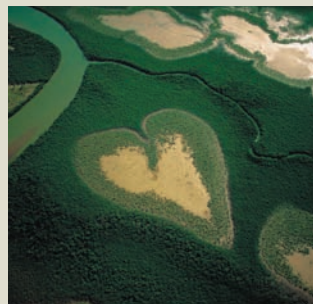
Donation Hotline **0800 389 16 24**

www.itdg.org Registered Charity No. 247257



ecologist diary

EARTH FROM THE AIR



Earth from the Air is a spectacular collection of large-scale photographs of astonishing natural landscapes. Created by world-famous photographer Yann Arthus-Bertrand, every stunning aerial photograph tells a story about our changing planet. A free open-air exhibition in the gardens of the National History Museum, Kensington, London, open from 10am–8pm daily. For more information visit www.earthfromtheair.com

JANUARY

23–8 JANUARY, PORTO ALEGRE, BRAZIL

The World Social Forum is an open meeting opposed to neo-liberalism. For more information visit www.worldsocialforum.org. An antidote to the absurd World Economic Forum held in Davos, Switzerland. (For info on this visit www.weforum.org)

29 JANUARY, LONDON, UK
Making your Project Financially Sustainable. Real, practical examples, including the use of credit unions, selling services, utility co-ops, mainstream funding, membership, motivating support and exchanges. Run by the Environmental Trainers Network. Tickets: £150/100 plus VAT. Contact: Pat Brayshaw 0121 358 2155; email: etn@ukgateway.net <http://www.btcv.org/etn>

FEBRUARY

2 FEBRUARY, WARWICKSHIRE, UK
Celebrate National Potato Day and discover over 100 varieties of potato. For more information call the HDRA on 024 7630 3517 or visit www.hdra.org.uk/events.htm

2 FEBRUARY

World Wetlands Day. What you can do to help save the world's wetlands and to ensure the provision of safe, fresh water around the world. Tel: +41 22 999 01 70; email: ramsar@ramsar.org For more information visit: www.ramsar.org/wwd2003

2 FEBRUARY, BRIGHTON, UK

Fancy a Seedy Sunday in Brighton? A community seed swap held at the Old Market in Hove on from 11am to 5pm. 113 Queens Road, Brighton. Tel: 01273 381686; email: seedsunday2003@yahoo.co.uk

3–9 FEBRUARY, NATIONWIDE, UK

Bramley Apple Week organised by the Bramley Apple Association. www.bramleyapples.co.uk/events_apple_week.htm

4 FEBRUARY, LONDON, UK

Fireflies and dragonfishes do it in the dark. Professor Peter Herring talks on bioluminescence and its use in sexual displays, defence and camouflage. Zoological Society of London. Tel: 020 7449 6313; email: tuesdaytalks@zsl.org

10–16 FEBRUARY

National Honey Week For further information call 020 7255 1100 or visit www.honeyassociation.com

11 FEBRUARY, LONDON, UK

Gene Futures Conference will debate the commercialisation of GM crops in the UK. Bringing together key voices in the scientific, regulatory agricultural and policy communities to highlight key questions and explore the different options faced by the UK. Royal Society of Arts, London. 9.30am–4.30pm. Individuals £15; organisations £45. Book tickets by calling 01298 872531 or online at www.genewatch.org

12 FEBRUARY – 16 MARCH, LONDON, UK

In Search of Paradise. Kew's ninth orchid festival. Orchid evenings are held on 19th and 26th February and 5th March from 6.30pm–9pm. Tel: 020 8332 5607/5619

13–16 FEBRUARY, NUREMBERG, GERMANY

Biofach World Organic Trade Fair. The leading international organic fair with 1,921 exhibitors from 57 countries. Nuremberg Exhibition Centre. Mon–Fri: 9am–6pm, Sun: 9am–5pm. Email: info@biofach.de or visit www.biofach.de

13–18 FEBRUARY, COPENHAGEN, DENMARK

Environmental Justice and Global Citizenship. This event explores the role of ecology and assesses the implications for our understanding of fairness, justice and global citizenship. Contact Dr Rob Fisher on rf@inter-disciplinary.net or visit www.inter-disciplinary.net

15 FEBRUARY, GLASGOW, SCOTLAND

Not in our Name Mr Blair! No More Blood for Oil! Mass rally and march to stop war on Iraq to coincide with the Labour Party Conference. When

Tony Blair is in Glasgow make sure he gets the message! Organised by Scottish Coalition for Justice not War. Assembly point: George Square, 11am. For further info call 0141 423 1222 www.banthebomb.org

14–15 FEBRUARY, LONDON, UK

Stop the War Demo. The 14th will be an evening of rallies, culture and film and the 15th will be a London-based national demo. Part of a Europe-wide day of protest against the war. For further info visit www.stopthewar.org



17–21 FEBRUARY, CORNWALL, UK

Disabled Access to the Countryside: putting the case for integration. This course will raise participants' awareness of disabled peoples' physical, intellectual and sensory needs, through lectures given by technical experts to give a balanced appreciation of access needs. Churchtown, Lanlivery, Bodmin, Cornwall. Tel: 01208 872148

28 FEBRUARY, LONDON, UK (LAST FRIDAY OF EVERY MONTH)

Monthly Critical Mass bicycle ride around London. Meet at 6pm under Waterloo Bridge on the South Bank, next to the NFT bar. www.critical-mass.org

MARCH

4 MARCH, LONDON, UK

The Decline and Recovery of Otters to English Rivers. A lecture by Rob Strachan discussing the threats to the otter, both past and present, and the conservation measures being taken to protect its future. The Meetings Rooms, Zoological Society of London. Tel: 020 7449 6313; email: tuesdaytalks@zsl.org

5 MARCH, SHREWSBURY, SHROPSHIRE, UK

The use of homeopathy in organic systems. One-day training event at The Farm in Lognor, Shrewsbury. For further information contact Angeal Wescott at the Soil Association on 0117 929 0661 (ext 7587). Email: info@soilassociation.org

6–9 MARCH, WELS, AUSTRIA

Energiesparmesse is one of Europe's largest sustainable energy exhibitions. 550 delegates from 60 countries are expected to attend. Contact: Natural History Museum press office on 020 7942 5654; email: J.Glyde@nhm.ac.uk

7 MARCH, ACCRINGTON, UK

Lancashire Food Festival features demonstrations, food stalls, free tastings and traditional Lancashire music. Accrington Town Hall. For further information visit www.lancashirefoodfestival.co.uk

12 MARCH

World Day of Action against Seal Hunting. Called by Coalition to Abolish the Fur Trade. Tel: 0845 330 7955/07939 264864; email: caft@caft.demon.co.uk www.caft.org.uk; www.banfur.com
13–14 MARCH, WASHINGTON, DC
World Resources Institute's Sustainable Enterprise Summit. This sixth annual summit will showcase partnerships between the WRI and leading corporations that transform vague concepts of sustainability into concrete actions. The conference will focus specifically on actions that support new 'green' markets and that train business leaders to manage for sustainability. Tel: +1 202 729 7635; email: lydiaV@wri.org <http://wri.org/wrisummit>

27 MARCH, CHILTON CANTELO, SOMERSET, UK

Pest and disease control in organic glasshouse crops. One-day training event at Cantelo Nurseries in Chilton Cantelo. For further information contact Angela Wescott on 0117 929 0661 (ext 7587); email: info@soilassociation.org

28–30 MARCH, TORONTO, CANADA

A three-day Toronto Social Forum of resistance and alternatives to corporate-led globalisation. [More details to follow.](http://www.more.org) Contact: jconway@ryerson.ca

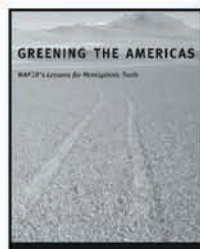
29 MARCH, LONDON, UK

Kyoto March. Two years after Bush abandoned the Kyoto protocol we are having a March to the End of the World (symbolising where Bush and Exxon are leading us) from the ExxonMobil HQ in Leatherhead, 20 miles to the US embassy in London. A rally at the Imperial War Museum at 3.30pm begins the march to US embassy where an End of the World Party begins at 5.30pm. For more info call 020 8855 3327 or email: info@campaignc.org



For further information visit: www.theecologist.org

New books from the MIT Press



Greening the Americas

NAFTA's Lessons for Hemispheric Trade

edited by Carolyn L. Deere and Daniel C. Esty
foreword by José María Figueres-Olsen

"For those of us who see the trade and environment nexus as central to future progress, this is essential reading."
— William K. Reilly, former Administrator, U.S. Environmental Protection Agency

352 pp., 10 illus. \$27.95 paper

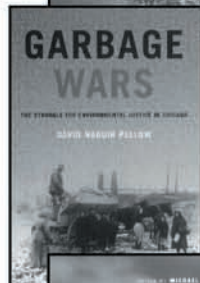


Tritium on Ice

The Dangerous New Alliance of Nuclear Weapons and Nuclear Power
Kenneth D. Bergeron

"An alarming and absorbing book about the dangers to the Tennessee Valley, the country, and the world from the government's 1998 decision to produce tritium in three civilian nuclear plants."
— Ralph Nader

232 pp., 7 illus. \$24.95

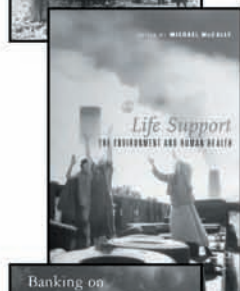


Garbage Wars

The Struggle for Environmental Justice in Chicago
David Naguib Pellow

"Raises important questions about how society confronts its waste problems, and who ultimately pays for the choices made."
— Martin V. Melosi, University of Houston, author of *The Sanitary City*

263 pp., 8 illus. \$24.95



Life Support

The Environment and Human Health
edited by Michael McCally

"Should be required reading for both medical professionals and environmentalists."
— Anne H. Ehrlich, Stanford University

292 pp., 12 illus. \$19.95 paper



Banking on the Environment

Multilateral Development Banks and Their Environmental Performance in Central and Eastern Europe
Tamar L. Gutner

"An important study of some of the challenges international institutions face in responding to increasingly diverse demands from their expanding constituencies."
— Steven Weber, University of California, Berkeley

280 pp., 4 illus. \$24.95 paper



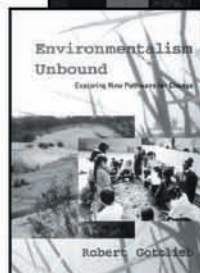
Bureaucratic Landscapes

Interagency Cooperation and the Preservation of Biodiversity
Craig W. Thomas

"A significant contribution to the field. . . . helps clarify the need for improved cooperation, and why cooperation is so rare today."
— Timothy W. Clark, Yale University

368 pp., 2 illus. \$27.95 paper

now in paperback



Environmentalism Unbound

Exploring New Pathways for Change
Robert Gottlieb

"*Environmentalism Unbound* is cogent and visionary."
— *Washington Post Book World*

414 pp. \$19.95 paper

Moral and Political Reasoning in Environmental Practice

edited by Andrew Light and Avner de-Shalit

"This balanced and brilliant collection bridges environmental philosophy and environmental practice to the betterment of both."
— Mark Sagoff, University of Maryland

Taking Sustainable Cities Seriously

Economic Development, the Environment, and Quality of Life in American Cities

Kent E. Portney

"Finally, here is a book that takes the environmental-urban connection seriously. A work like this is truly overdue."
— Dennis R. Judd, University of Illinois at Chicago

312 pp., 2 illus. \$25.95 paper

Environmental Politics and Policy in Industrialized Countries

edited by Uday Desai

"The first really useful book for teaching comparative environmental politics."
— Norman Vig, Carleton College

392 pp., 3 illus. \$24.95 paper

The Economic Dynamics of Environmental Law

David M. Driesen

"Shows that the holy grail of public policy—economic efficiency—is both misunderstood and misapplied by those who examine the so-called environment-economy tradeoff."
— Stephen M. Meyer, MIT

272 pp. \$24.95 paper

The Grassroots of a Green Revolution

Polling America on the Environment

Deborah Lynn Guber

"Provides the most comprehensive and thought-provoking look at public opinion on the environment to date."
— Paul Mohai, University of Michigan

328 pp., 14 illus. \$24.95 paper

now in paperback

Tomorrow's Energy

Hydrogen, Fuel Cells, and the Prospects for a Cleaner Planet

Peter Hoffmann

foreword by Senator Tom Harkin

"This book has everything the reader needs to know about hydrogen."
— *Foreign Affairs*

301 pp., 23 illus. \$16.95 paper

To order call 800-405-1619.

Prices subject to change without notice.

<http://mitpress.mit.edu>

Care for others as you care for yourself



Viridian is a new kind of vitamin company dedicated to ethical business practices including environmental awareness, pure ingredients and charity donation.

In fact, in 2001/2002, Viridian is donating £30,000 to a range of environmental, children's and other selected charities including NSPCC, Friends of the Earth, Childline, Woodland Trust, Shelter, The Orangutan Foundation, Help the Aged, Amnesty International, Terrence Higgins Trust, Barnados, National Deaf Children's Society, RSPB, Trees For London, UNICEF, Hackney City Farm, Born Free Foundation and Maggie's Cancer Care. Viridian supplies specialist health food stores and each year the stores vote which charities will benefit the

following year – as the company grows, so do the charity donations.

Viridian vitamins and herbs are excellent quality and cost no more than comparable, non-donating brands found in the mass market. So, by switching to Viridian, you not only get the best in nutrition, you also help generate thousands for charities. Everyone's taking vitamins these days and what better way to take them than with a large dose of Viridian's feel-good factor.

The Viridian range of vitamins, minerals, herbs, amino acids and nutritional oils is available from selected independent health food stores.



viridian

Care for others as you care for yourself

For your nearest stockist call 01327 878050.
www.viridian-nutrition.com