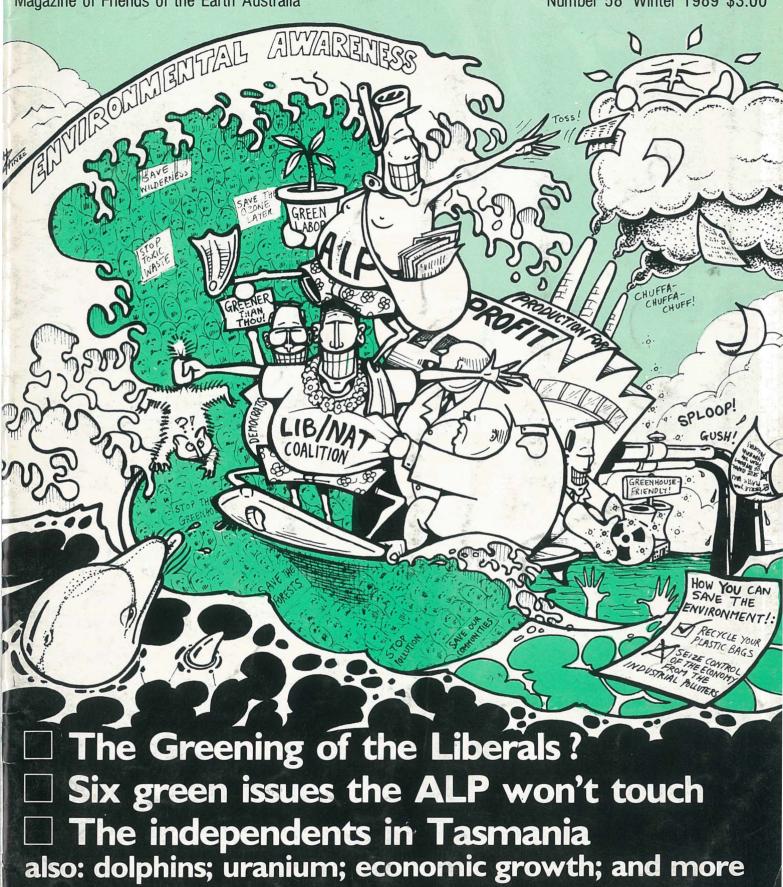
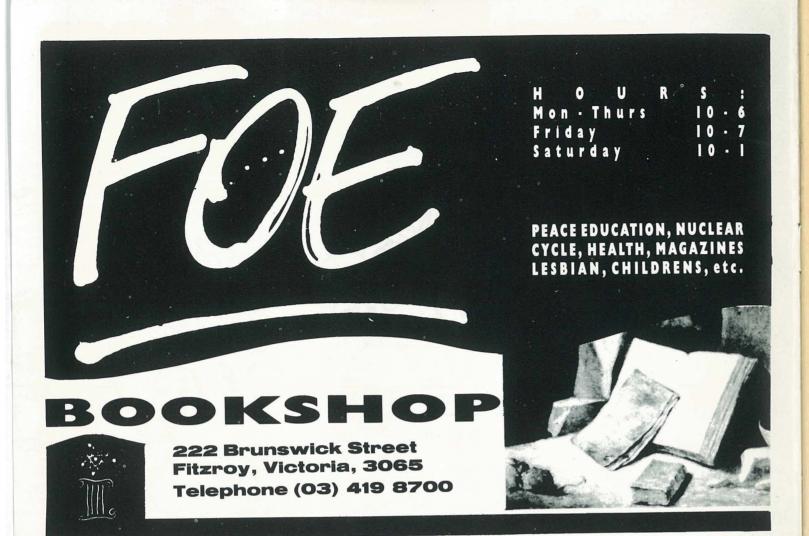
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Chain Reaction 58 Winter 1989 Is growth so bad? Economic growth does not necessarily lead to environmental destruction, argues James Prest. **Growing pains** 15 John Young looks at the price society and the environment pays for conventional economics. Of Time and tide 18 Richard Grossman examines the media's handling of environmental issues. **Green Independents** 20 Bob Burton and Judy Lambert report on the Tasmanian Green Five green issues 23 the ALP won't talk about But Peter Blacknell will. **Green light for the Right?** 24 Does the Libs' new-found environmental concern make any difference, asks James Prest. **Agent Orange Revisited** 28 Paul Di Masi reports on a review of the findings of the Evatt Royal Commission **Dolphins in chains** 31 Sue Close ponders the fate of Adelaide's Marineland cetacea. A range of problems 33 Pat Jessen summarises the chequered history of uranium mining in Ominous, obsolete and over here Regulars Margaret Colmer looks at the role of the US base at Nurrungar. **LETTERS** Recycled paper: Still a whitewash 38 BACKSTAGE 4 David Vincent asks, "how recycled is 'recycled'?" **EARTH NEWS** Sacred sites under threat **FOE GROUPS** The Northern Territory Government legislates away Aboriginal 10 control. A special report. REVIEWS 43 Frame-up ... RESOURCES 47 The Hilton bombing blows up again. Georgina Abrahams looks into the case. **HELLO FLOWER**

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LETTERS

International Conference 1988

In their report about the Friends of the Earth International Annual General Meeting (AGM) in 1988, held in Krakow, Poland, Jane Basden and Dave Sweeney (Chain Reaction No 56) made an observation that I would like to comment on.

Jane and Dave describe the debate about the role third world groups play in the Friends of the Earth International network. According to their observations "a number of quite strong criticisms were raised by representatives of the third world groups." These criticisms were concentrated on being a member having only "very little advantage at present and often brings unexpected disadvantages." Jane and Dave seem to agree with that, stating: "The larger western groups often use the fact that there is a high 'third world membership' to gain credibility or prestige for their own groups, without assisting their southern partners."

First of all, I would like to make clear that not all third world representatives expressed this criticism. It was expressed by two or three representatives only and on the other hand, the representative of FOE Ghana, Theo Anderson, made a strong point in warning his colleagues not to become too independent from financial sources from the north.

Another third world

member group, Sahabat Alam Malaysia, in its Annual report to the AGM, made clear how important FOE International has been for its activities, even more, for its existence. It faced a very difficult situation in the autumn of 1987, when three activists were arrested under the Internal Security Act and even a even ban on its activities was threatened (mainly due to its support of the Penan in Sarawak and the residents of Bukit Merah against a Japanese factory, Asian Rare Earth producing radioactive waste).

"The immediate response and mobilisation of support from FOE International was tremendous. In those trying weeks, SAM truly felt the solidarity of the environmental movement."

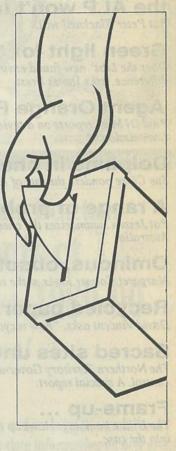
Jane and Dave do mention the direct assistance by FOE Netherlands, Sweden and the United States to southern groups, thereby moderating the picture. I would like to underline that the biggest FOE group, the one based in London and with membership in England and Wales, through the years has been the biggest supporter from the network (also financially) to especially FOE Malaysia. And I would not like to forget the effort FOE Italy and again the Netherlands is making in assisting the environment movement in Eastern Europe. Eastern Europe is not the third world, surely, but the independent environmental movement in

this part of the world is facing serious troubles well worth our attention.

Furthermore, I would like to make clear that apart from the Netherlands, England and the United States there are no real big organisations within FOE International, in the sense of having a large budget. Some groups, like Canada and Italy, are growing fast at the moment, and they will be able to support FOE-groups in other parts in the world more and more. But even within Europe a number of FOEgroups are either very small or very much decentralised.

The strength of FOE International lies within its decentralised structure, within its national groups having a political, critical attitude towards governments, companies and also to the moderate environmental and conservation organisations. This means that FOE groups working in the West, having a consciousness that the environmental problems in the third world are also the result of the unequal world wide economical relations, know that they have to take part in the global fight for a better environment together with environmentalists from the third world countries. Financial support is important and this kind of support is growing. But more decisive in the long run will be the development of the international campaigns in a sense that people in the third world and in the west really find common goals and means to fight the global destruction. That is what makes FOE International impor-

John Hontelez, Chairperson FOE International Netherlands You are invited to write letters to Chain Reaction with vour comments on the magazine or any other issues of interest. Letters should be kept within 300 words so that as many as possible can be published. Longer letters may be edited. Write today to Chain Reaction, GPO Box 90 Adelaide, 5001. South Australia.



Greenhouse

Bill Keepin's 'Cooling the Greenhouse' (Chain Reaction No 57) made two salient points: nuclear power isn't appropriate and efficient energy use is important. However, energy efficiency is only part of the solution to greenhouse problems. No matter how efficiently we use energy it needs to come from somewhere. But where? This question is left unanswered in Keepin's article. The answer is, of course, from renewable energy sources.

Small scale solar, wind and hydro technologies all have an important part to play. These technologies are developed, but government apathy and market place problems are hindering their introduction. Heightened public awareness of the compatibility between renewable energy and the environment will contribute to widespread acceptance.

John Foster Palm Beach, Qld

Environmental Action

Our workplace has recently established an Environmental Action group, which is an excellent way to meet like minded colleagues, share information, and initiate actions.

We've organised speakers, shown films, publicised rallies, instituted paper recycling and circulated information.

As the meetings are held at lunch times and there is no travelling involved, people who otherwise find it difficult to actively participate in environmental issues are able to. So why not start one?

Joanne Wright Bondi, NSW Economic Growth
In your most recent issue of
Chain Reaction (No 57),
Ian Grayson in his article

Chain Reaction (No 57), Ian Grayson in his article says that no political party has a policy calling for a sustainable economy. The Australian

Democrats not only have a policy calling for a sustainable economy, I have spoken many times against the growth economy. I include a package of my speeches on this matter.

Congratulations on an (otherwise) excellent journal

John Coulter, Senator for South Australia

Flying into the Greenhouse

I read Ashley Campbell's article 'Flying into the Greenhouse' (Chain Reaction No 57) with interest. However I was under the impression that air travel became the favoured method of overseas travel because of the vast amounts

of oil required by ships, in other words ship travel was uneconomic because it was less energy efficient than air. All forms of overseas travel, except sailing ships, canoes etc, use fossil fuels in their operation, as do all forms of motorised land transport.

greenhouze

Ashley Campbell is correct in pointing out the environmental costs of travel but I think he has mistaken his target in favouring ships over aircraft.

Margaret Dingle Kensington Gardens, SA.

Footnotes Thanks for the last edition

of Chain Reaction, particularly the article about dioxin and organochlorides. It was informative, but I have a concern, Chain Reaction rarely uses footnotes or names of sources of information. Facts are pulled out of the air. I believe that you don't really pull them 'out of the air', but it creates problems when I

want to quote your quotations. I think when writing about issues to governments and companies it is useful to be able to quote that so and so's study showed such and such. Quoting sources adds weight to one's argument. I want my letters to be taken seriously, so I often quote others' work. Also it is plain courtesy to acknowledge sources: good literary practice – even if it takes a little

more time.

I look forward to increasing acknowledgment of sources in *Chain Reaction*

Susan Moss Balwyn, Victoria

EDITORS NOTE: Yes, we agree and will try to do so on all articles written by the editorial collective. However many articles Chain Reaction prints are unsolicited, and we do not always have the resources to provide footnotes if they do not accompany the article.

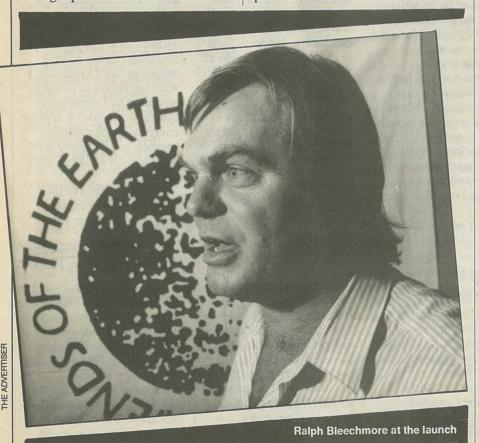
BACKSTAGE

This is the second Adelaide-produced edition of Chain Reaction, and we hope the move has not been an inconvenience for readers and supporters. It has meant a lot of work establishing an office and locating resources, but it has been made less onerous by the support we have received from people in Adelaide. People in other states have made an effort to stay in touch with us, and our contact with Friends of the Earth groups is better than it has been for years. The recent upsurge of interest in environmental issues has meant that doors have opened for us where we might have once expected a brick wall.

Chain Reaction had an Adelaide launch party on June 8 which went well. The arrival that day in Adelaide of a shipment of yellowcake from the Roxby Downs uranium mine did make things a little hectic as a few of us went to the midnight protest action as well.

Ralph Bleechmore, a lawyer in Adelaide with an interest in both the other things, gave a talk which was critical enough of the mass media, particularly the Murdoch media chain, to ensure that nothing got printed in the local newspapers, although they did take a few good photographs.

We hope you like the look of the magazine, because it's about to undergo some style changes. The current style, or something roughly similar to it, has been around since 1980, and we have had some feedback that the magazine is too wordy and is often daunting to readers. We have also found that there have been many style changes in small ways between editions of Chain Reaction, and in resolving those differences, and adding some bits we haven't used much before, we really came up with a quite different look.



We won't be removing too many words from Chain Reaction, but we will environment and the media, among be trying to make it easier to read by changing the typeface and removing some of the lines between and around the text. There will be other changes, their final forms are still being debated, and we hope that the new look will be easier for reading. And to those people who like the current look of the magazine and don't see any need for change, please give us a chance, and keep on reading our content, which we change with every issue. If you really don't like it after a few issues, you can buy a set of back copies to remember what the magazine really should be like.

> We also hope to print Chain Reaction on recycled paper in the very near future, but there are a number of technical and supply obstacles at this stage. Meanwhile, if you want to recycle Chain Reaction, please pass it on to a friend.

Chain Reaction continues to be a magazine that tries to cover issues from an activist viewpoint, and although we can't cover everything, we do like to hear about events and issues from the people who are close to the action on as many different environmental fronts as possible.

If you're involved in a group working on an issue which might be of interest to the readers of Chain Reaction, send us a copy of a newsletter or just sit down and write your news. Chain Reaction accepts contributions in almost any form, from scraps of paper to computer disks. (We prefer material on disks because it means that we don't have to type it in. Call us first to be sure that we can use your disk and software types.) We like photographs and graphics which are either self-evident or have good descriptions.

The next issue should contain the long-awaited Activist Contact List. Please contact us with the name and address of any group or groups working on environmental issues. We will not be able to include everything, but we'd like as much information as possible for making our choices.

EARTH NEWS

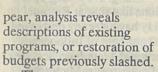
The Galaxy's greatest environmental bandaid

"What a pain in the neck" appeared to be the response of Senator Graham Richardson to intense questioning at the National Press Club in Canberra on 24 July 1989. The questions followed a speech defending the environment policy statement made four days earlier by Prime Minister Bob Hawke.

Journalists uncovered some of the more glaring omissions of the statement - jokingly dubbed by the ABC's Paul Lyncham as the 'galaxy's greatest' - including an admission that it predicted increased emissions of CO2 in the future.

The statement is welcome, but difficult issues have been avoided. It is less a strategy for solving environmental problems than a strategy for solving the Government's electoral problems. Amongst the verbiage on recycled paper there is scarce attempt to discern the causes of Australia's current environmental crisis. For example, although the major focus of the statement was land degradation, there was no analysis of its underlying causes.

Given the ALP's economically orthodox commitment to cutting government spending, the apparent decision to increase spending on environmental protection is confusing. But in many places where numbers ap-



The statement was described as 'a milestone' by the ACF's Phil Toyne for the way in which it allegedly represented real steps towards integration of economic and environmental decision making. However, little commitment was made to including environmental costs in the economics of future development decisions. Richardson has ad-

mitted that he was 'rolled' in Cabinet over setting a target (twenty per cent) for reduction of greenhouse emissions. The Government's greenhouse response is notable for its refusal to seriously consider action on urban sprawl, minimum fuel efficiency standards for motor vehicles, tangible increases in funding for alternative energy and transport. The

government refused to reject an expansion of Australia's nuclear industry, and allocated \$100,000 towards the establishment of a nuclear waste dump in the Northern Territory. The section on ozone protection contained no news. Exports of CFCs will continue.

Action to improve the urban environment was avoided by insisting that air. water, and noise regulations were a State responsibility. The section on recycling contained little other than discussion of dropping the 20 per cent sales tax on recycled paper. There was no mention of compulsory container deposit legislation.

Talking on logging in the National Estate forests of South East NSW, Richardson said: "We were prepared to keep negotiating whilst the trees kept falling."

Recent talk of a 'nation-

al environment referendum' has obscured the fact that

the Commonwealth already has sufficient powers to over-ride the States to protect the environment. Senator Richardson admitted this, announcing that a 're-appraisal' of the use of the Corporations Power had taken place.

The Government is responding to community awareness and pressure with the environment statement. In large part it is tring to enhance its electoral prospects, but it is also recognising that environmental issues need to be addressed. However, the Government needs to address environmental issues before crises happen, not just try to cover up some existing problems.

Source: 'Our Country, Our Future', Prime Ministerial statement; National Press Club Luncheon broadcast. 24 July 1989.

EARTH NEWS

Australian links with deforestation

It has been revealed that there are Australian connections to the proposal to establish a massive eucalyptus plantation and pulp mill near Merauke in West Papua (Irian Jaya).

Indonesian non-government organisations are leading a campaign of opposition to the project which seems likely to result in the destruction of about 800,000 hectares of primary rainforest, the pollution of local rivers with dioxin laden pulp-mill effluent. and the dispossession of the local Auyu people.

Darwin is set to become

Oil concession boundaries

Official logging concession

Alluvial extraction

Mine location

o Major prospect

the supply base for PT Astra-Scott Cellulose's (ASC) giant venture. Darwin seems likely to supply technical equipment, medical back-up, and social services for skilled expatriate personnel.

Eucalyptus plantations of the sort to be established by ASC at Merauke have been condemned by ecologists for the high demands they make on both soil nutrients and ground water levels.

ASC intends to destroy a huge area of rainforest in order to make room for its plantations.

It is clear that if ASC only wanted cleared land they wouldn't be setting up in West Papua as plenty of denuded land now exists in Kalimantan and Sulawesi. ASC intends to use the funds from the clear felling of the 800,000 hectares to establish its pulp mill at the site before the year 2000.

The Indonesian government has donated the title

TREND EXPLORATION, SUN OIL, AGIP

of the 800,000 hectares of land to the ASC corpora-

Also in Irian Java, the Japanese logging corporation Marubeni, has succeeded in negotiating a contract with an Indonesian company, the Pingardi Group, to provide roughly half the finance for a US\$7 million mangrove woodchip mill in Bintuni Bay which will be fed by logging of mangroves within a 135,000 hectare concession.

Marubeni was recently named 'Tropical Forest Destroyer #1' by JATAN, the Friends of the Earth Japan's Rainforest Action group. Marubeni is heavily involved with logging in Sarawak, Malaysia, being the importer of 90 per cent of the wood going into Japan from that area.

Mangrove felling operations like that at Bintuni Bay have already destroyed 30 per cent of Indonesia's original 4.6 million hectares of mangroves. Mangrove

WENDELL, PHILLIPS TESORO, SHELL, "CONSORTIUM"

CONOCO.

A MOSIE AS CORP.

UNION OIL,

MARATHON OIL CORP., CALAS

TOPCO

WEST PAPUA

ILLIPS SUPERIOR

PEXAMIN

AGIP

trees are mainly logged for conversion to wood-chips or charcoal for export to Japan and Singapore. Indonesia's first mangrove logging operation began in 1972. By 1985, there were 14 companies operating these ventures. The focus of this type of logging has shifted now to Irian Java, as much of the mangroves of Sumatra and Kalimantan have already been over-exploited.

In May Indonesian environment groups organised demonstrations during the visit to Jakarta by the US Vice-President Dan Quayle. The focus was the role of US interests in deforestation and the pollution caused by tailings from the US Freeport corporation's copper mine in West Papua.

Source: Walhi (Indonesian Environment Forum), Land Rights News, World Rivers Review, Third World Network Features.

Untouched forest a better earner

economic potential of an untouched patch of Peruvian rainforest, American biologists and economists concluded that the area of forest under examination would be worth more in dollar terms if left unlogged, if its fruits, nuts and medical products were harvested in sustainable ways. The three researchers arrived at the conclusion that the net revenues earned from harvesting nontimber resources a one hectare plot at US\$6820, exceeded those available from logging or cattle farm-

Source: Nature

On examination of the ing by two to three times.

Los Angeles goes for electric vehicles

The Los Angeles City Council (LACC) hopes to have 3,000 electric vehicles on the road by 1991, and 10,000 by 1995.

An Australian company, Elroy Engineering, is one of the seven finalists for a contract to supply the city with electric cars, vans and buses.

Elroy Engineering has developed 17 models of electric vehicle, ranging from large buses to commuter vans and cars. The company's vehicles use the conventional lead acid type of battery. The designer of the cars, Roy Lembruggen, explained that this is because lead acid batteries are the only proven, commercially available, and economically viable batteries. Despite this, Mr Leembruggen, says that his company's Townobile vehicles easily meet the LACC standard of a 90 kp/h road speed and 90 km operating range.

He described the attitude of Australian governments to electric vehicles as one of 'apathy'.

Recently the Democrats slammed the Australian car industry for its emphasis on the production of large cars. Victorian Democrat State President, Sid Spindler said: "In 10 years Australia's population has increased by 30 per cent. yet the number of cars has doubled! The companies are offering little in the way of smaller, more fuel efficient cars. Emissions from cars contribute 30 per cent of greenhouse gases in Australia."

Source: Electric Vehicle Progress, Australian Democrats.

Morgan forced to defend Roxby

Hugh Morgan, managing director of Western Mining Corporation, was recently forced to defend radiation control measures in place at the Olympic Dam uranium mine in South Australia, following criticism of WMC's unwillingness to fully disclose the contents of health and safety reports by both the Federal and State environment ministers. In an interview with the Adelaide Advertiser, Morgan claimed that working in the Roxby mine was "safer than driving a cab."

John Willis, Greenpeace's international uranium campaign co-ordinator, recently on a tour of Australia, said Morgan's comments were "truly ridiculous." He stressed the point that the upper limit of allowable radiation dosage set in Australia (aimed at determining a 'safe' upper level of radiation exposure) exceeded those of the UK and Sweden by three times, and those recommended by some scientists and also Friends of the Earth (UK) by ten times. He said. "Scientists have discovered

times." A motion carried recently by 300 delegates at the SA State ALP convention also questioned the adequacy of the exposure standards laid down in the Roxby Downs Indenture Ratification Act.

over the last couple of years

timating the effects of radia-

that we've been underes-

tion by as much as ten

WMC's unwillingness to disclose the health and safety reports was sledged by Federal Environment Minister Graham Richardson, who shortly after saying that having

IF THEY PRINT ANYMORE OF THIS STUFF ABOUT US IN CHAIN REACTION I'LL BE FORCED TO ARRANGE A LEVERAGED BUY-OUT! fenced tailings dam with footprints in it. Ms Marks

more uranium mines could mean more money would become available for spending on pensions, made the hollow promise that he would try to force disclosure of the reports.

Greenpeace's John Willis said that "the secrecy surrounding the mine is unique. It is unlike the situation in any other democratic country with uranium mines." He argued that the only other uranium mine in the world about which information was being withheld was in Namibia, under the control of the South African military.

On a recent visit to the area, FOE Fitzrov's Ila Marks and friends were out- Source: Adelaide Advertiser; raged to discover an un-

said, "It is horrifying to imagine that a worker may have gone home to his family with tailings slurry on his boots. It contains uranium oxide, Radium 226, and heavy metals such as arsenic, mercury, and lead."

Ms Marks also reported the re-alignment of a fence to enclose an embarassing collapsed mound spring, which was apparently damaged by Roxby's water gathering operations. This was done without consultation with the local Aboriginal people who were seeking compensation for the damages.

FOE Fitzrov.

EARTH NEWS

Logging blockades

A report from FOE Hong Kong and JATAN, FOE Japan's Rainforest Campaign, indicates that logging companies operating in the homelands of the Penan tribes of Sarawak, Malaysia, have escalated their activities in response to growing international pressure for a cessation of logging.

Hearing that the logging companies have started logging around the clock, 24 hours a day, in 3 shifts, the Penan have said they will create the 'biggest ever' blockade of logging roads.

Source: FOE Hong Kong, JATAN.

Toxic waste register needed

At the time of the release of Mr Hawke's 'world's greatest' environment statement the Australian Democrats raised the ugly spectre of the rampant dumping and uncontrolled storage of industrial wastes by Australian companies, calling for a 'national industrial waste audit'.

The register, proposed by Democrat leader, Janine Haines, would comprise a listing of:

- all pollutants being produced;
- who is producing them, and in what quantities; and
- how they are being disposed of.

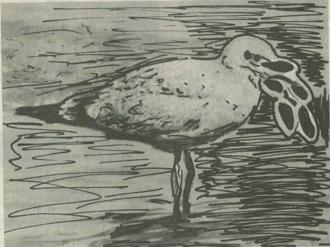
Source: Democrats, Victoria.

Environment friendly plastics?

Since the publication of the last Chain Reaction there has been a rash of environment 'friendly' or 'environment smart' plastic bags being released by various retailers and plastics companies, all across Australia. This action follows in the footsteps of similar launches in the USA, Italy and the UK. In London, in June, ICI announced its introduction of a sugar based degradable bag, and Italian company Ferruzi announced a range of cornstarch based containers. Controversy has been raging since the begin-

photodegradable bags 'environment smart', but it appears that there is plenty of evidence which suggests that they are just plain dumb. It will not be surprising if consumers are tricked into overlooking the distinction between truly biodegradable and merely photodegradable. As vet it is unknown what effect this dust will have on animals and the environment. Nor is it known exactly what happens in the breakdown process and little is known of the toxicity of the byproducts being released.

Even the 'biodegradable' plastic bags, yet to be released in Australia, may not be truly biodegradable.



Six pack plastic rings are a hazard to birds and marine life, who can be trapped in the rings and starve or choke.

ning of the year in the USA where degradable plastic magazine wrappers, shopping and garbage bags, seedling protectors, medical sutures, and nappies are all now available.

In late July Coles New World introduced photodegradable plastic bags to its stores along with a line of unbleached toilet paper. Such bags break down after a period of exposure to UV light into fine powdery particles of polythene.

Coles has called its

The only difference is that microbial action instead of UV light is used to break down the bag - but hundreds of tiny plastic particles will still remain at the end. There are several types of these biodegradable bags those based on cornstarch or sugar, those with wood fibres or cellulose as the 'edible' ingredient.

An article in a Canadian environmental magazine, Probe Post (Fall 1988) by Colin Isaacs, argues that biodegradable plastic is a

ticipated such difficulties. Late in July, Tom Roper, Victoria's Environment Minister, called upon the retailers already supplying the bags to stop doing so until there was a full assessment of their environmental impact. type, constitute a drain on the Earth's finite petroleum resources. They throw a spanner in the works of any attempts at the recycling of plastics, even if recycling is not an ideal solution. The best solution remains to

> tion of plastic. Source: Utne Reader, May/June 1989; Not Man Apart, October 1988

choose to eliminate the

source, by stopping produc-

plastics problem at its

myth. Isaacs refers to the

opinion of Dr. David Wiles,

director of the National Re-

search Council of Canada's

division of chemistry. Wiles

says that the breakdown of

such plastics would exacer-

leachate production, possib-

bate the "already serious

ly adding toxic chemicals

much more damaging than

plastic wastes themselves."

Other problems that

have already been per-

ceived in the US, where a

rash of legislative action,

things, at stopping the 'six

pack ring' killing of marine

life, include the lack of set

quality of such degradables.

There are no agreed defini-

tions of the terms 'biodeg-

specifications for decom-

position, and no uniformity

of methods for testing the

It seems as if some

Australian politicians are

astute enough to have an-

Plastic bags, whatever

toxicity of by-products.

radation' and 'photo-

degradation', no time

standards to govern the

aimed at, among other

problem of gas and

Questions raised about fibreglass

Synthetic Mineral Fibres, or SMF are among the latest substances to have come under the scrutiny of the Federal Government's National Occupational Health and Safety Commission (Worksafe Australia).

SMF, or sometimes MMMF, Man (sic) Made Mineral Fibre, is an umbrella term covering fibreglass and glasswool, ceramic fibres, and rockwool.

These materials are mainly used in the construction and sheet metal trades.

In May Worksafe Australia released for public comment a draft national exposure standard (which suggests various threshold limits of exposure to respirable SMF fibres) and a code of practice (working practices and procedures for controlling respirable SMF fibres).

Decision makers responsible for controlling the level of future workers compensation payouts are concerned about the health effects of uncontrolled use of fibreglass type products. There must be good reasons for this.

The draft standard says: "Animal experiments and evidence from human studies have caused the International Agency for Research on Cancer (IARC) to conclude that glasswool, rockwool, slagwool and ceramic fibre may possibly be carcinogenic to humans."

There appears to be increasing evidence that it is the size of the fibres and not the actual material itself that causes cancers in humans. The US National Institute of Occupational Safety and Health said in a recent NIOSH Bulletin: "published experimental evidence demonstrates that fibrous glass has the same potential for inducing cancer as asbestos fibres of the same dimensions."

Two papers are particularly relevant. One details experiments performed by Dr Mearl Stanton of the US National Cancer Institute which concluded that all inorganic fibres within specified size ranges and shapes could be carcinogenic.

A second paper, by Dr Kaye Kilburn of the University of Southern California School of Medicine entitled Flame Attenuated Fibreglass: Another Asbestos? is interesting. It argues that the process of "flame attenuation" developed in the 1960s to make fibreglass fibres as thin as asbestos (to increase their insulating capacity) had created a 'second era' of risk, and predicted the "1980-1990 decade will be the time for diagnosis of the first tumours or fibrosis due to fibreglass."

At a recent press conference in Sydney organised by the Amalgamated Metal Workers Union (AMWU), the Chairman of the US organisation Victims of Fibreglass, Richard Munson, said fibreglass companies had 'cloned' asbestos by developing the flame attenuation process.

"We are dealing with the same people who made asbestos products." he said. "In the 50s they realised they were going to be regulated out of business so they looked for an alternative product.

"In 1955 evidence was laid on the table of the head of the Owens Corning Fibreglass Company that showed glass fibres had the same effect on laboratory animals as asbestos, but they elected to go ahead

and produce it.

"Manufacturers in the US have killed more than 100,000 insulation installers and they knew clear back into the 30s that this was deadly...they are professional liars and professional killers.

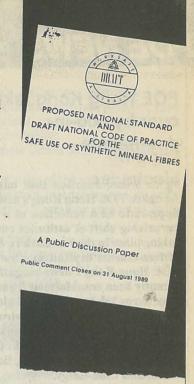
"It should be recognised as a carcinogenic agent", and he recommended that fibreglass insulation already in the ceilings of Australian homes be covered to prevent contact with air that would allow fibres to float into homes.

Worksafe's action appears to be a response to the sustained pressure applied since early 1988 by the AMWU who began printing articles about the potential health effects of working with fibreglass in mid 1988 in The Metal Worker. According to Chris

Lindsay, the co-editor, the AMWU was threatened with legal action by the Fibreglass and Rockwool **Insulation Manufacturers** Association (FARIMA). representing major fibreglass manufacturers, including ACI and CSR (Bradford), for having printed such articles. The manufacturers also reacted by producing material in defence of their SMF products.

Mr Lindsay said the accuracy of written material literature provided FARIMA, it was 'laughable'. "It's all about obscuring the point", he said. "[They say] most of the fibres are larger [than the flame attenuated fibres and that it's perfectly safe below a certain percent concentration, in a proper factory, with proper ventilation, with proper breathing equipment."

"But how many work in such a controlled environ-



ment?" he asked, pointing to the 'backyard' use of fibreglass and the lack of legal obligations on employers to provide such conditions.

One of the principal demands of the AMWU, Mr Lindsay said, was that fibreglass manufacturers be forced by law to place health warnings on their products, as in the USA.

Future anticipated developments include a drawn out wrangle over what constitutes a safe threshold level of exposure. The political process will be used to determine what is essentially a scientific/ medical question.

Battles can be expected in each State to get legislation even in line with Worksafe's guidelines. Worksafe's draft code of practice is purely a series of recommendations to employers - it is not legally binding.

Source: Worksafe Australia, The Metal Worker.

FOE NEWS

FOE Hong Kong taken over by eco-industrialists

The transformation that has over-Laken FOE Hong Kong's newsletter appears to be a reflection of a hardly surprising shift of attitudes currently taking place in the Far Eastern bastion of free-market capitalism. One Earth, FOE Hong Kong's news-magazine has recently been transformed from a one page xerox job to a slick and glossy 22 page product of corporate environmentalism sporting full page advertisements from such crooked and unscrupulous uglies as Shell, Barclays Bank, and Ciba-Geigy.

The editorial entitled 'Ecoindustrialists', calls for a less confrontationist style of environmentalism. proclaiming, "the time is right for cooperation with the new breed of eco-industrialists."

Such an approach tends to gloss over the activities of many of these firms. For example, Shell and Barclays have massive investments in South millions of tonnes of non-Africa which serve to prop up the abominable system of apartheid. Ciba-Geigy has a black history of putting profits before human lives with the marketing of known lethal pharmaceuticals to developing countries. The histories of the drugs clioquinol, phenoformin, butazolidin, and tandearil, all developed by Ciba-Geigy are truly hair raising.

Particularly odious is the story of clioquinol, marketed in Japan and less industrialised parts of the world as an anti-diarrhoeal. Clioquinol induced a syndrome of toxic degeneration of the nervous system (SMON) that left the victim in severe pain, blind, paraplegic | the environment. and with irreversible damage to the nervous system. Anwar Fazal, of the International Organisation of Consumer Organisation's (IOCU), writes that the clioquinol story has been

affected more lives than thalidomide. By the time Japan banned the drug in 1970, between 10,000 to 30,000 people had been permanently injured and nearly 1,000 had died.

Clioquinol is the subject of a book to be published by the IOCU by a Swedish paediatric neurologist, the late Dr. Olle Hansson called Inside Ciba-Geigy (see Resources page 47.)

Ciba-Geigy is also involved with the manufacture of two of the Pesticides Action Network's (PAN) 'dirty dozen' pesticides: Chlordimeform (or Galecron), and DDT. Another piece of evidence about Ciba-Geigy's attitude to the environment leaked out of Switzerland late in 1988.

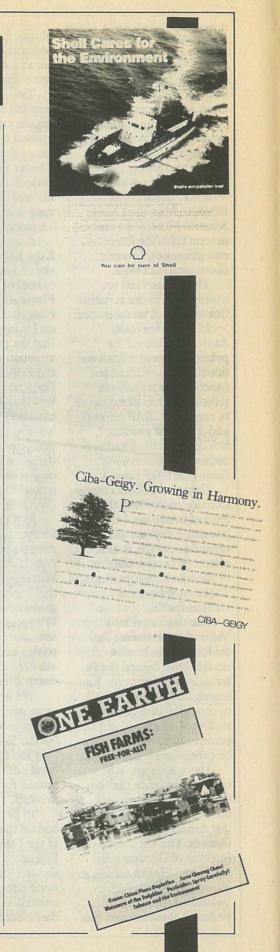
Routine tests by an international agency monitoring water quality in the Rhine River revealed that Ciba-Geigy had in one 'discreet' incident dumped 1.6 tonnes of herbicide into the river.

McDonalds is another company praised by FOE Hong Kong for its environmental awareness. McDonalds is well known for its role in the destruction of millions of hectares of rainforest in Central America and its production of biodegradable, non-recyclable stryofoam waste each year.

While one can only agree with FOE Hong Kong that at times it is indeed possible to "catch more flies with honey than vinegar", at Chain Reaction we believe that FOE Hong Kong would be wise to avoid getting caught itself.

Another reason why we haven't leapt to accept corporate sponsorship is that companies may be keen to develop a good environmental image to cover up their unconscionable activities in other areas. Chain Reaction believes in making the links between the exploitation of people and the exploitation of

Whilst ecologists can manipulate the profit motive that drives industrialists to clean up their act, they must be aware that actions leading to bans in the home country will simply described as "the worst drug disaster in encourage the company to shift its history", with clioquinol thought to have operations to another part of the world.



FOE action on genetic engineering

In response to the release of genetically modified organisms to the environment at the Waite Institute in South Australia in July 1987, FOE Sydney has undertaken campaign and education work on the implications of genetic engineering.

It has produced a 64 page booklet which contains articles on many aspects of Genetic Engineering. However FOE tribute these widely; Sydney believes that there still is an ur-

gent need for much more detailed discussion and debate on the subject. Consequently, it has undertaken to hold an open and thorough Inquiry into all aspects of genetic engineering and its implications.

The Iquiry aims to:

• promote public discussion by providing a forum through which interested individuals and community groups can communicate:

• collate information and resources which arise from the Inquiry and dis-

• facilitate dialogue between in- Ph: (02) 211 3953

dividuals and groups who share concern about the issues but, perhaps, have insufficient understanding of each others viewpoints.

• promote action on genetic engineer-

The first stage of the inquiry is planned to commence in late August or early September. If you are interested write to:

FOE Sydney. **Genetic Engineering Inquiry** 4th Floor, 56 Foster St Surrey Hills 2010



Is growth so bad?

Does all economic growth lead to environmental destruction. James Prest comments on lan Grayson's "Green Consumerism" in the last edition of Chain Reaction.

Ian Grayson's article "Green Consumerism" [CR 57] displays a number of dangerous and simplistic misconceptions which appear to be widely held by environmentalists.

Grayson's contention is essentially that there is an unshakable and direct correlation between economic growth and environmental degradation. He says: "Economic growth, even 'green growth' cannot be sustained for much longer without causing irreversible damage to the environment."

I intend to take issue with this blanket rejection of economic growth. There are essentially two points to be made. First, it cannot be shown that growth per se automatically results in ecological disaster. The second is that there are a number of causes of environmental destruction other than economic growth.

There can be no doubt that we live on a planet with finite resources. But it does not automatically follow that economic growth will bring us to the abyss of planetary disaster. This common misapprehension usually arises because no effort is made to define 'economic growth'.

If one picks up any economics textbook to examine how economic growth (per cent increase in GDP or GNP per annum) is calculated, the most perfunctory glance will reveal that there are some types of economic growth which benefit society and at the same time do not result in any appreciable environmental damage. Further, there are some forms of growth which can stem from repair of environmental damage.

For example, if the Federal government were tomorrow to announce a massive \$3-4 billion increase in spending on health, housing, and education, this would raise the GDP, create economic growth, improve the lives of many people, and would do little to damage the environment. To continue the analogy, if the government were to spend \$5 billion over the next five years on planting trees, this would create a lot of growth, and I doubt that anyone will suggest that this activity will throw us into the abyss of ecological disaster.

These comments are simply an attempt to point out the logical possibility (given the current system of national income accounting) of a simultaneous occurrence of growth and social or environmental benefit.

I am not one who worships at the badly tarnished altar of economic "pragmatism." The depletion of nonrenewable resources is a crucial issue. It is also obvious that a reform of the methods of calculating the national accounts statistics is required. It is crazy to have an increase in growth (which is then commonly assumed to represent an increase in national welfare) coming as the result of running down the ecological capital upon which our economy depends. Herman Daly summed up the situation brilliantly when he said: "there is something fundamentally wrong in treating the Earth as if it were a business in liquidation." I am also well aware that growth can not and should not be seen as an end in itself, or as an indicator of societal welfare.

However, there are a number of cases where growth may not be such a bad thing. In a country with a growing population, surrounded by a world filled with 12 million refugees, growth may perhaps be a necessity. Questions of the distribution of the benefits of that growth of course must be considered. But if there are more people and the economic pie remains the same size then one must be aware that probably a number of people will become

Opponents of growth must also be aware that as our economy is no longer based so heavily on industrial production, it isn't such a heavy user of resources. The industrial sector has contracted and the service sector has grown. The economic growth which is being generated in the services sector is a growth that is both labour intensive, and energy efficient.

I have mentioned above that some of the principal factors contributing to environmental degradation have been overlooked. Resource depletion and pollution are occurring at their present rates is happening faster than it should principally because the price currently placed on non-renewable resources is lower than their true cost.

It must be recognised that even if there were no growth occurring in the economy, decisions would still have to be made about the use of resources. Calling a halt to economic growth is therefore not a solution in itself. Environmental problems would not disappear if there was zero economic growth occurring.

The crucial issue remains that it's the price of resources which determines how the players in the economy will be using them. On the whole, Australian governments have not yet created financial incentives for the rational use of resources such as air. water, soil and fossil fuels. If petrol and electricity were to cost more then people would act to limit their use of these resources. Recent historical experience shows that an increase in the price of oil will do far more to reduce its consumption than bleating appeals to switch off lights and ride bicycles.

Before the OPEC oil price rise in the early seventies, in OECD countries, there was a 1.2-1.3 per cent increase in energy consumption for every 1 per cent of economic growth. Following the price hike energy efficiency became a necessity, and growth in oil consumption fell to 0.5 per cent per 1 per cent growth. It would be apparent to seasoned environmentalists that a decade of calls in Australia for solar power and energy conservation have done little to promote their

Raising the prices of resources at first appears an attractive solution. But its simplicity overlooks any possible concern for equity, and it also encourages us to continue to ignore questions of who is making the decisions, what mandate they have to make them, and on what criteria they are being made. If it is the present structure and orientation and ideological outlook of the economy that is creating the environmental problems, which it probably is, then a long-term solution is never attainable using only the price raising method described above.

What is actually needed is an economics which recognises that rational decisions about the use of resources cannot be made on the sole criteria of profitability. Government must intervene, making these decisions, but it still must be aware that being strong enough to harness the desire to make profit can be used to push the introduction of ecologically sound prac-

In such a reformed economic system the decisions of resource users would be tempered by the knowledge that government has given resources prices which reflect their true cost and scarcity. This amounts to establishing a functioning market where market failure previously existed.

While there may be much merit in aiming at consuming less resources, there is a problem that this is widely perceived as being an demand for people to stop consuming altogether. This

is the implication of saying: "even if effective than mere exhortations, tired we move to more environmentally appeals based around "public educaacceptable products", we will be tion." What is needed is not an attack unable to "stave off the impending on other environmentalists for being environmental crisis." "yuppies" and consumers, but the Asking environmentalists, a small articulation of an alternative economic section of society, to suddenly stop buying things, is hardly a credible way to "stave off the environmental crisis."

Everyone else in Australia will contin-

ue to 'consume' in the way they have

done in the recent past, seeing the

example of green anti-consumers as

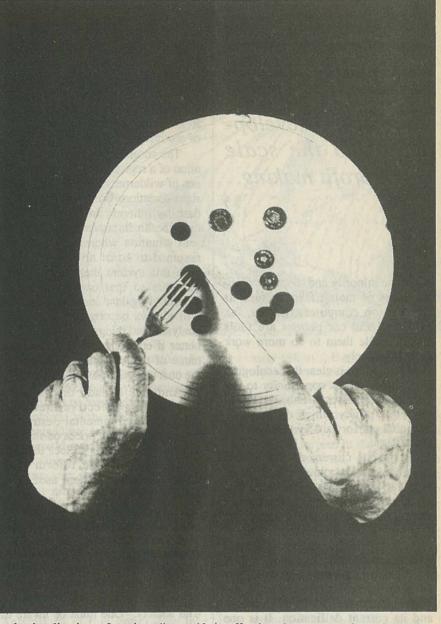
the attitude of an idealistic, utopian

minority. Surely, if one were con-

vinced of the need to reduce consump-

tion in our society, it would be more

Grayson claims that "many environmentalists are quite heavy personal consumers." This is at odds with the obvious poverty of most activists. It can only be the big time operators such as Phillip Toyne to whom Ian Grayson refers when he says "I personally cannot take seriously those who adopt high profiles on environmental issues yet lead high consumpintelligent to adopt methods more tion lifestyles ..." Surely such people



The problem is not with people making profit. It is with the scale of the development and the scale of the profit making.

are in the minority and the more obvious parts of their lifestyle, such as cars, laptop computers, pagers, fax machines and car phones are tools which enable them to do more work more effectively.

At present it is clear that ecologists have a marvellous opportunity to put forward alternatives to Labor's current economic policy which differs little from that put forward by those further to the Right.

Given the current narrowness of the range of viewpoints being allowed access to the media, it is crucial that when alternative economic proposals are put forward they be presented by spokespeople with adequate knowledge of the current system, and people who can speak using its terms.

What is required? Essentially it is an economics which questions the current definition of "development" and its current deification. It is one which asks on what basis such "development" decisions are made — is it social need, or is it obscene levels of profit?

The problem is not with people making profit. It is with the scale of the development and the scale of the profit making. Recall how the media jumped for joy several months ago when BHP "finally" (!) hit "the big one", the one billion dollar profit mark. However, the beloved Tasmanian Independents, in their encouragement of smaller businesses, never said making a profit was a sin. A less simplistic attitude to profit and development must be taken, if only for the sake of media relations.

A fundamental issue not presently being considered is who has control of the majority of Australia's resources — Australians, or overseas based mega-corporations. Politically, this is an extremely volatile subject. Remember how the shit really hit the fan for the Whitlam government when Rex Connor tried to buy back control of our mineral resources.

The recent suggestion for the creation of a register of the economic values of wilderness areas is a step in the right direction. Whilst there are some dangers inherent in this proposal, it must be an improvement on the present situation where these areas are assumed to be of no value. At least with this system there will be some numbers so that one figure can be measured against another. Developers will always be creating cost-benefit analyses, and things can only work out better if environmentalists can, in the name of realism, add a little more to the cost side of those equations.

And I've already discussed one immediately effective method of reducing environmental destruction: that of putting new prices on resources so that these prices reflect their true cost. This entails a reform of the national accounts system used to calculate growth.

An important part of getting such proposals on the agenda is to get some acceptance in the mainstream. This cannot be achieved if there remain countless individuals in the environment movement making overly simplistic attacks on capitalism or "industrial society." One must be aware that the environment in most non-market countries is more seriously degraded than in the West.

Another way of increasing credibility and acceptance in the decision making arena is to make sure that the figureheads of the environment movement can show that they are capable of avoiding making elementary blunders and displays of profound ignorance about the workings of the conventional economic system — such as not knowing how GDP is calculated and what the current account deficit is.

Grayson argues that it is "runaway industrial growth that is poisoning the planet." It is both simplistic and politically dangerous to lay the blame on

"industrial society." Let us consider for a moment where we are to get our environmentally sound bicycles from if we do not have mines and steel plants. Are we supposed to give those up too? Grayson's program is one that large numbers of people will not accept.

Laying the blame on "industrial society" and "runaway industrial growth", leaves environmentalism wide open to the oft-made criticism that it is asking everyone to go and live in caves. The tone of gloom has been the point critics have raised most frequently over the last 20 years. Ecologists were given the name of doomsdayers at the time of "Limits to Growth" and it has stuck ever since.

There is a basic problem with the present "marketing" of environmentalism. Hopefully we can agree that we are actually trying to sell an alternative ideology. Obviously it is very tempting for some to argue: "if they are the right ideas then so what if they are unpopular", but I feel that there is a need to get pragmatic. There is little need now to sell the idea of caring for the planet. It is discussion of fundamentals such as how to run our economic system is what really sets the Greens/ Democrats apart from the Liberal/ Labor camp. An alternative economic policy needs to be presented now, but it must not be the same one that was put forward and rejected 15 or 20 years ago because of its simplistic extremism.

But then it transpires in Grayson's article that apparently the only way to solve the environmental problem is to have a "massive drop in this affluence", massive unemployment, and a "significant shake up of the social order." If the Green Independents in Tasmania were to have tried selling this sketchy and ill conceived idea, their legitimate voice would still be being ignored.

The issue is getting people into power to implement the program. It must be accepted that the program currently being presented by environmentalists such as Grayson has to be modified if we are to ever get there.

James Prest operates chainsaws at Friends of the Earth rainforest demonstrations and specialises in the eradication of feral animals. Growing
pains

Society and the environment both pay the price of economic growth. John Young examines the consequences of our reliance on conventional economics and suggests some alternatives.

Earlier this year I rang Mike Elliot, the South Australian MLC, and asked him if I could come and lobby him about the impending fate of the *One and All*, South Australia's sail training brigantine. (Having started the project in 1980 and run it until the ship was launched in 1985 I don't want it sold off to some millionaire.)

Mike agreed to see me, but he warned me that his priority for government expenditure was national parks rather than wooden sailing ships. I tell this story not to have a go at Mike, but as an illustration of the perception that the welfare of society and the welfare of the environment are alternatives between which we must choose.

It is consistent with this view, and with the view of conventional economists, that social welfare depends on continued economic growth and that if environmental priorities like national parks are to be favoured it must be at the expense of social welfare unless economic growth can be rapid enough to produce a surplus big enough to pay for both.

I want to suggest the contrary view, that a sustainable economics would have two complementary effects:

1. It would reduce damage to the environment, not just because of

lower levels of pollution, but because of a reduced need to earn foreign exchange by attracting vast numbers of overseas tourists so we could do without tourist developments in national parks.

 It would reduce damage to society because it is the side effects of economic growth and the dominant philosophy of 'economic rationalism' which is responsible for many of our social problems.

Towards the end of last year, the Commission for the Future produced a report on youth in Australia. It contained some horrifying statistics. Suicide rates for males aged 15–24 have doubled in the last 20 years — Australians in this group now take their lives at one a day. Robbery, burglary and theft by young people have quadrupled in the last ten years; rape has risen by 150 per cent in the same period. Family disintegration, homelessness, poverty and youth unemployment are all increasing.

Our leaders tell us that we have these problems because our economic performance isn't good enough, because we can't attract enough foreign investment. A recent book says:

Australia's unemployment and poverty legacy and the social and economic deterioration that it implies are direct results of the decline in economic performance experienced during the 1970s and early 1980s ... the sooner output and economic growth are revived ... the sooner the scourge of high unemployment will be removed. ²

But after five years of relentless growth, a reduced overseas debt, a \$5.5 billion surplus at the last budget, we still seem no closer to the promised land. Mr Hawke tells us that by 1990 there will be no child poverty in Australia, but most of us won't be holding our breath.

The alternative theory, well put last year by an anonymous Treasury official, is that it is growth itself which we should blame:

For the co-existence of private affluence and public squalor, the creation of imagined wants rather than real needs, the relentless exploitation of the earth's resources, for poisoning the air and waters, for despoliation of the environment and threats to the biosphere, for crime, violence and drug addiction.³

The connection between all these symptoms of crisis is not immediately obvious, but I suggest they are all related to the problem which has become the flip side of growth—increasing inequality. The role of governments in industrialised countries for the past three decades, whatever their political complexion, has been to maintain a balance between economic growth and social peace. It is a peace

We have to put up with the loss of wilderness, pollution and the rest to make the world safe for inequality.

which is threatened whenever a slowing of growth draws attention to its side effects, of which the most important is growing inequality.

Growth results in increasing inequality partly because its benefits, such as more expensive cars and luxury travel, go to the rich; the costs, such as polluted air, noise and high cost of commuting, are felt by the poor.

Inequality also arises from the growth policies of Big government, Big business and Big bureaucracy. For example, if governments do not favour capital intensive forms of growth, as opposed to decentralised, diverse and labour intensive forms of growth, they are judged to be inefficient and they won't have the 'runs on the board' to impress an electorate which is trained by Big media to value such yardsticks of well-being as 'Gross National Product' (GNP) and 'Balance of Payments'.

In spite of the figures, average families in rich countries find they need two wages (when one is difficult enough to find) in order to maintain the level of consumption they have been taught to expect. It has only been possible to prevent antagonism developing between people at the bottom and top of an increasingly long social ladder when growth has been sufficient for the relatively small gains which do filter down to the poor to result in an absolute rise in living standards. This just about offsets the resentment caused by increasing material aspirations, fuelled by advertising, in a context of increasing social inequality.

It is a very delicate balance at the best of times and it is easily upset by the intrusion of such factors as racism, as we saw last year.

Treading the tightrope successfully means supporting the building of office towers, casinos and tourist developments, selling off mangrove swamps for the construction of marinas and, at the same time, adopting policies which distribute just enough surplus to the poor to avoid too much turbulence and to keep radical politicians out of office. Leaders like John Bannon, Bob Hawke and Margaret Thatcher perform this balancing act very well in times of good economic fortune based on high prices for minerals or farm produce — be it North Sea Oil, full order books for the arms trade, or submarines. Without these props they know they must expect

Avoiding trouble in countries like Australia has the joint effect of maintaining present inequalities and accelerating the degradation of the environment. We have to put up with the loss of wilderness, pollution and the rest to make the world safe for inequality.

The second and related problem of late industrial society is that growth has not and will not cure unemployment. Instead of providing a growing demand for labour, a shrinking labour force in the 1990s will be able to produce a mountain of goods for those who have jobs and can afford to consume. Those who cannot will contribute to a permanent underclass of unemployed or poorly paid part-time workers.

In Britain, America, Japan and now Australia and New Zealand the underclass is already large. It consists often of migrant workers living in inner city areas or suburban pockets, or single parent families, or homeless children with a low rate of literacy and a high rate of drug addiction, suicide, violence and criminality. They are thought to be unlikely to form the vanguard of a revolution because they are marginal to the economy — some economists say their existence is the price modern society must pay for its success

But the cost to society from which this large section of youth has been removed is enormous. 'No go' areas of once great and civilised cities of the world expand. 'Normal' society closes its ranks, enacts tougher penalties, talks of law and order, and joins with the unions, the police and the bureaucracy in maintaining as much social distance as it can — which evidently isn't enough. Ralf Dahrendorf pointed out recently that the AIDS virus may turn out to be only one of the ways in which defining whole categories of people out of society will, in the end, rebound on those who believe it gives them safety and comfort.⁴

The problem is how to get out of this mess. One way in which a reforming government could start would be by using different methods of accounting. GNP makes no distinction between good growth and bad growth, and doesn't consider the costs of growth.

Car manufacturing and crash repairing, for example, are both seen as aspects of growth. So are tobacco sales and funeral expenses, whereas one should really count as a cost of the other.

Railways ostensibly lose money and road haulage makes money; both add to GNP but GNP doesn't show which brings more benefits or does more harm. Road transport has more accidents, leading to more deaths, lawyers' fees, lost days at work and insurance claims. It uses fuel less efficiently and creates more pollution than rail. Motorways use more land than railways do, land which could be used for homes, recreation, production or forests.

These things should count as losses. Adding them to growth makes them seem like profits. This kind of accounting explains why the unexpected benefits of growth never seem to materialise. I suggest we introduce an index called Net Human Benefit. Sailing ships would come out well ahead.

The other strategy for a reforming government would be to treat the economy like the wild uncontrolled plant that it is. By selective pruning, we can train it to serve socially useful goals — in other words, putting ethics into economics.

One way of anticipating what might happen in this situation is to consider British society during World War II. It gives an indication of what reforms are possible in a parliamentary democracy — provided two important conditions are fulfilled:

- 1. Everyone must be convinced of the need for fairly drastic action (and we are getting close to that).
- 2. It must be evident that there is going to be equality of sacrifice.

World War II did a lot more to equalise British society, as it turned out, than the period of Labour government that followed, and without the increase of equality, the necessary solidarity needed for survival would not have been achieved.

The purpose of the British wartime economy was to wage war effectively, but the side effects were as valuable for the environment as they were for society. Apart from purely military activity, Europeans on both sides consumed fewer raw materials and polluted their atmosphere and water less, as a corollary of greater equality. Good environmental habits became customary. People repaired things. Containers were all returnable. Newspaper was recycled. Scrap metal was ruthlessly recovered. People walked, rode bicycles and used buses and trains because petrol was rationed. Marginal urban land was used intensively as householders 'dug for victory' and composting became a topic of conversation.

The ration book in Britain proved itself to be what the revolver is supposed to have been in the United States, the great equaliser. It ended the situation in which social class coincided largely with physical size — in Britain more than half the population were better fed during the rationing period than they had ever been fed before. Wartime children were usually larger and healthier than their predecessors.

This shows what might be possible in the way of environmental reform if the need was widely felt to be urgent, and if equality became the pre-condition of sacrifice.

It would also be important to get rid of unemployment. Jobs can be shared, but the most important thing is to make work more interesting so that more people will want to share it. We should encourage skilful, labour intensive work, producing goods designed to last and to be easily repaired.

Housekeeping too, should be counted as work. It contributes more to our 'standard of living' than any-

thing else in the economy, yet we don't count it. Homes, after all, are the cheapest work places of all, because we have to have them anyway.

Providing the maximum number of jobs at the lowest capital cost instead of providing very expensive work places through capital intensive and boring methods of producing shoddy goods, should meet opposition from nobody.

The present response to unemployment by benign governments is to spend money on a series of discontinuous job creation schemes which have increasingly fancy titles but which are only directed to providing short term jobs within the existing industrial framework. Declining real job opportunities mean that such employment has to be temporary to make sure that as many people as possible get a turn at a boring job. This returns them temporarily to the ranks of the consumers and improves 'job creation' statistics.

An alternative strategy would be to work though community organisations and local governments to fund projects which develop the kind of skills which enable people to sustain and employ themselves. The criteria for funding should be that the workplaces are provided at low cost and require minimum use of non-renewable forms of energy. The use of skillfulness and of recycled or renewable materials should be encouraged, together with the best and most advanced technology available for these purposes.

The object would be to remove as many people as possible, as much as possible, from the consumer economy. The paradoxical effect would be to regain them as members of society. GNP might suffer for a while, until ways of measuring it were reformed, but welfare payments would be reduced, which would reduce taxation. Since such a strategy would provide increasing scope for individuality, and because it would stress liberty while achieving a greater measure of equality, it would win support from the Right as well as the Left.

Unemployment, the intractable symptom of a sick society, will respond only to some such antibody and this would lead to logically compatible policies in areas such as agriculture, energy, defence, aid, education and medicine.

Like most of the worthwhile reforms of the past, the transition to a sustainable economy will be difficult and frustrating - there will be backward steps and blind alleys as well as progress. If sustainable post-industrial societies are to be achieved, they will probably not arise from the ashes of a nuclear holocaust or a revolutionary apocalypse. It's more likely that, as fossil fuels are exhausted in the next century and as the cost of militarisation not only of the earth, but also of space, becomes unbearable, first for one superpower, then the rest, people will discover that their ability to live better as well as cheaper depends on the extent to which they become masters rather than servants of technology and liberate themselves from the imperatives of industrial society.

Politicians, probably in small countries to begin with, will sense public support for the encouragement of alternative economies. If present trends continue, the time will come when national leaders will be able to count on majorities to understand the consistency of programs of reform which encompass such superficially disconnected, but morally consistent purposes as preserving rainforest, restoring land to indigenous peoples and subsidising urban farms, protecting national parks and building wooden ships.

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John Young is Director of the Graduate Centre for Environmental Studies, Adelaide University. This article was original broadcast on 'Ockham's Razor' ABC radio on 14 May 1989.

Of Time and Tide

media and the environment

There is much in the media these days about the 'state of the environment' and what individuals should do to fix it. However as Richard Grossman points out in an analysis of a TIME magazine feature, much of what is said places responsibility on individuals to fix something that is not always within their control. Companies and governments make decisions which set the framework by which individuals are constrained. and such decisions are not always made with consideration for health and environmental consequences. He argues that the current environmental crisis has been exacerbated by deliberate decisions of companies and governments to ignore advice from scientists, environmentalists and others of the long term effects of their activities.

In its 2 January 1989 issue, with the Earth gagged and bound in plastic on the cover, TIME's publisher wrote: "Our editors decided the growing concern about the planet's future has become the year's most important story."

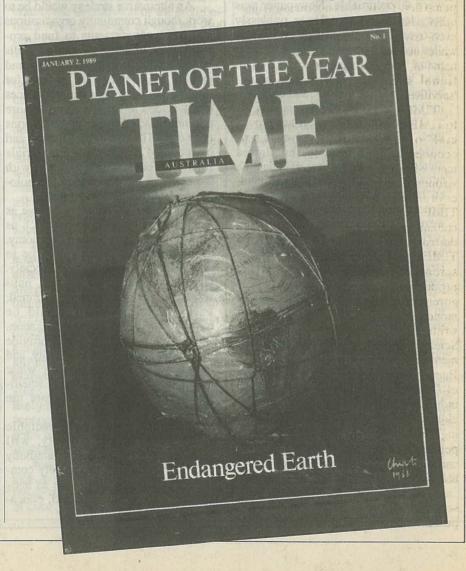
Now I think 'concern' is nice: it just does not make much of a story. Consensus on 'growing concern' is another way of helping people and institutions that are culpable to get off the hook. When

all are concerned, especially about abstract concept like 'the planet's future' being 'concerned' readily substitutes for action. It absolves one from dealing directly with the tangibles. The story TIME missed, of course, is the destruction of tangibles: towns, neighbours, communities, rivers, forests, soils, air, people, genes, flora, fauna, along with the real names and addresses of those doing the destroying (the US, USSR, German and Japanese Govern-

ments; Chevron, BASF, and Dow, to mention a few.)

TIME's devotion to diversion in its special package is instructive:

TIME does not distinguish between large scale industrial poisoners like governments and corporations, and individuals. There is no intimation that institutions make private, unilateral decisions that narrow the choices individuals can make. For example, paper companies only produce bleached milk



cartons oozing dioxin; car companies only low mileage vehicles; food monopolies offer foods riddled with chemicals. An individual driver may contribute petrol fumes to the air at each fill-up, but when refineries load tankers they emit tonnes of petrol vapors.

TIME does not bother using proper nouns of even the most prominent polluters, except to refer to a few efforts in pollution control. Instead, TIME writers animate machines and structures: "Smokestacks have disgorged ... factories have dumped ... cars have guzzled ... factories have dumped ... forests have been denuded ... lakes poisoned, underground aquifers pumped dry."

TIME limits its analysis of causation to "recklessness, carelessness, sloppy handling and profligacy." It does not suggest there may be institutions, run by educated and well paid adults, which deliberately have chosen to manufacture destructive products in ways that disgorge, guzzle, denude, poison and pump dry. TIME does not mention that other adults - pillars of the community even, trivialise citizen claims of harm while justifying such production in the name of 'progress', 'growth', 'jobs', 'national security' and if necessary 'sacrifice.'

TIME ignores history. It matters not to TIME that most industrial and financial organisations, along with economists and policy-level govern-ment officials, opposed health and en-vironmental legislation suggested by environmentalists since the early 1970s. TIME does not speak of worker and community resistance to poisoners and destrovers.

TIME does not share with us that some scientists warned of destructive production, corporate dominance and government collusion. Dr. Barry Commoner, for example, in several essays written in the early 1960s published as Science and Survival (1967), documented the duplicity of the US Atomic Energy Commission, the Department of Defence, and the chemical-nuclear industry building nuclear bombs. He, along with others, also wrote of impending climate change caused by a few persons' private decisions to generate carbon dioxide, radiation and a growing list of industrial and military poisons.

In addition, Commoner warned that

protectors was growing: "Scientists need to find new ways to protect science itself from the encroachment of political pressure ... to resist the hasty and unconditional support of conclusions that conform to the demands of current political and economic policy."

What did Commoner propose? "Science can only reveal the depth of this crisis, but only social action can resolve it ... Now we are stealing from future generations not just their lumber and coal, but the basic necessities of life: air, water, soil. A new conservation movement is needed to preserve life

The new social movement did arise. It accomplished much. What TIME does not ask, however, (just as the institutions that grew up with the movement do not ask) is why the destruction going on now has gotten worse.

The omission is logical: if TIME so inquired, it would have to admit that all these years of reasonable efforts have been inadequate; it would have to expose the polluters and throw away the platitudes it masquerades as solutions.

But having defined the 'problems' in ways which blame the victims and conceal the causes, it can safely offer proposals that have little to do with actually stopping production of poisons, actually stopping destructive investments.

For example, TIME calls for "mobilisation of political will, international co-operation and sacrifice unknown except in wartime." During the second world war, however, taxpayers contributed \$17 billion to corporate factory construction under that same banner of 'sacrifice'. We did not get a nickel's worth of ownership or any role in production decisions. Whose sacrifice does TIME have in mind today?

TIME calls upon our leaders to direct this mobilisation. But our leaders oppose citizens organising to stop the poisoning now. What would TIME do with these leaders?

None of TIME's recommendations suggest anything to alter today's lopsided political relationships between the polluters and the polluted. This is true globally as well: 'international cooperation' is a euphemism for 'other countries have to co- operate with us.' science was in danger because the Just as the status quo in our neighborpower of the poisoners and their | hoods and communities, with regard to

But having defined the 'problems' in wavs which blame the victims and conceal the causes, it can safely offer proposals that have little to do with actually stopping production of poisons, actually stopping destructive investments."

the poisoners, is not to be challenged, so too the status quo between the weak and powerful nations must remain in-

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Green Independents

The rise of the Independent Greens in Tasmania to gain 18% of the statewide vote has sent shockwaves of concern through the major parties and entrenched green issues on the political agenda nationally. We asked Bob Burton for the details of the likely aftermath.

The size of the green vote is the largest recorded on a statewide basis anywhere in the world and makes Tasmania the only place outside West Germany where the Greens hold the balance of power. The explosion of the Independents onto centre stage in 1989 has been a long time coming. From one seat in 1980, to two in 1986 and five in 1989, the Independents have tapped into the green groundswell while the major parties ignored it. Under the Hare-Clark proportional representation system, members are elected to Tasmania's House of Assembly if they gather 12.5%.

In the last three years, the conservative Gray Government has forced into the arena a range of projects around which green extra-parliamentary opposition has crystallised. Debates have raged over proposals to log the National Estate Forests, the construction of a silicon smelter in a residential area, the giant Wesley Vale pulp mill. On each occasion the Parliamentary Labor Party has sat impotently on the sidelines while the green movement has slugged it out with

the Gray Government and big business. In so doing Labor left the Independents a clear run.

The signing of the Labor/Green accord setting out a programme of parli-amentary and policy initiatives has guaranteed the Labor Party minority government with the Independents retaining a distance from the machinery of government. Some components of the Accord

- · fixed four year terms;
- establishment of a Parliamentary Research Service:
- freedom of information:
- · land rights;
- · repeal of anti-gay legislation;
- · a Wilderness Act;
- · public disclosure of bulk power contracts, Nuclear Warship Safety Plan and mineral royalties;
- affirmative action policies:
- nomination of sections of the Western Tasmania wilderness for World

Many of the components of the agenda for reform, long advocated by the Greens, are opposed by conservative sections of the ALP and the Establishment.

Within days of getting the balance of power, members of the establishment dramatically changed tack -- from ridicule of the Independents to enticement. The editor of the Launceston Examiner, who for years had been antagonistic to conservation, had a hand-written note delivered to Bob Brown's remote rural home. The editor of the Hobart Mercury, which

also editorialised against the Greens rang to offer his congratulations. The Hobart Chamber of Commerce made contact seeking discussions, as did the Chamber of Mines. The grass roots rebellion against unwanted developments, which they had tried to crush, survived. The time had come for the establishment to try and limit the damage.

As time goes by, a new strategy of limiting the impact of the Greens is likely to emerge, focussing on cooption of rhetoric and diversion of attention to energy-sapping parliamentary processes and committees and endless sessions of discussion. For the establishment, it is time to try and bring the outsiders inside and cut them off from their community campaign roots. But the Independents have eschewed co-opting processes and the spoils of power. Ministerial positions, there for the taking, were not sought. Symbolic of the Independents' aversion to parliamentary privileges is the move to abolish the traditional perk of subsidised liquor for Ministers. With substantial philosophical differences between the Independents and the conservative Parliamentary Labor Party, there will be substantial differences on many policy issues.

The Independents will, for example, retain their right to ask questions of the government on the floor of parliament, and can be expected to constantly push the Labor Government -- stretched thin to fill all the positions of a Ministry -through the Parliament and media, while extra-parliamentary groups will maintain external pressure. The Independents for the next term have the substantial advantage of having three



Sitting members Dr Bob Brown (in Denison) and Dr Gerry Bates (Franklin) have now been joined in Parliament by Mrs Christine Milne (Lyons), Mrs Dianne Hollister (Braddon) and Rev. Lance Armstrong (Bass). All stood on a platform of environmental and social issues and for a new and more open style of

Strong Community support for this new approach is seen in the fact that Drs Brown and Bates both topped the polling in their electorates while Di Hollister is the first woman ever elected to the State's northwestern seat of Braddon. The Hare-Clark proportional voting system has seen an independent Green elected in each of Tasmania's five electorates.

ChristineMilne comes from a family with long links to the rural community most affected by any pulpmill planned for Wesley Vale in the State's North. As leader of the resident's action group, CROPS (Concerned Residents Opposing the Pulpmill Siting), Christine has become a nationally recognised environmental campaigner. Di Hollister has much in common with her friend and political colleague Christine Milne, Both are schoolteachers, and both have campaigned against the proposed Wesley Vale pulpmill. Lance Armstrong's commitment to "Green" values comes from his life as a Uniting Church minister, and from a strong involvement in peace issues.

Dr Judy Lambert, National Liaison Officer, The Wilderness Society

more members to cover more issues; | present, 17 major companies dominate under the accord they will gain support staff, where presently they have only what they pay out of their own pockets. For many, the Independents have become the real opposition, and have ensured that for the foreseeable future, Labor cannot govern in its own right.

The Greens will insist on more open government -- access to information, the ability of citizens to participate in debates -- with the political intent of strengthening the hand of community groups in counteracting the pervasive influence of big business upon public policy. Perks, backroom deals and secrecy, the hallmark of previous conservative labor and Liberal administrations, will have a rough trot.

The ALP, for its part, is likely to give the contents of the accord the same status as ALP policy -- "more honoured in the breach than the observance" as Hamlet said. Much of the Independents' program will undermine the standing of entrenched business interests which dominate Tasmania's economy. At the economy -- consuming 66% of the state's electricity, mining 90% of the minerals and accounting for 85% of the timber production. The very same companies which have provoked intense environmental controversies over the past 15 years.

However, the ALP, with only 13 seats, needs all five Independents present to avoid defeat on the floor of the house. Any backdown on the contents, or implementation, of the Accord renders the ALP vulnerable to further erosion of support at the next

The fate of the program of reform hinges on two vital factors: whether the greens allow the program of reform to be watered down, and the degree of obstruction from the conservative legislative Council. The Greens will undoubtably be subjected to substantial pressure to be "reasonable", "responsible" and "willing to compromise" from the media, big business and conservative unions. The

Details of the Accord

The Accord between the Green Independents and Tasmanian ALI contains a number of immediate gains for the environment movement, and some reforms to process which will strengthen the movement in the years ahead. The Accord sets out that in 1989:

- The 130,000 hectare Denison-Spires area will be nominated for World Heritage along with the 2,500 hectare Little Fisher Valley (just adjacent to the Walls of Jerusalem National Park) and the 6,500 hectare Hartz Mountains National Park: The Denison Spires and Little Fisher
- Valley will be gazetted as National parks; the 14,000 hectare Douglas-Apsley will be made a National Park:
- logging and roading in Jackey's Marsh, the East Picton and Lake Ina will bepermanently banned:
- land currently vested with the HEC reinstated as part of the Wild Rivers National Park under the control of the Department of Lands, Parks & Wildlife: · areas agreed to be nominated for World Heritage as a result of last year's Forestry Agreement to be protected as National Parks (includes the Lemonthyme, Farmhouse Creek, Gordon Range, Upper Weld and Wayatinah forests);
- the proposed Huon Forest Products woodchip mill won't be allowed to

Possible wilderness gains under the Accord: consideration of the Central Plateau. Campbell River areas, the Eldon range and Lower Gordon River catchment for inclusion within the area for listing as a

- · any National Estate forests within Western Tasmania that the ALP agrees to protect will also be nominated for World
- · a review of the alternatives to logging National Estate within the next year, with terms of reference, composition and structure to be agreed by the Premier and Dr Bob Brown;
- · the World heritage Planning team will prepare a report on the appropriate boundaries of a Western Tasmania World heritage area for presentation to the World Heritage Committee by 1989

continued next page*>

* from previous page Commitments by the ALP to major reforms of Government processes

- · FOI legislation:
- wilderness ;legislation;
- environmental assessment legislation;
- consistent appeal provisions between he Environment Protection, Mines, Sea Fisheries and local government Acts this would enable community groups to appeal against the granting of mining or exploration licences, for example;
- public disclosure of bulk power contracts and mining royalty payments;
- a ban on mining and exploration in National Parks, and a revocation of
- existing licences within World Heritage areas or National Parks:
- · the creation of Marine parks:
- * a woodchip export quota ceiling of 2,889 million tonnes per annum;
- a full review of the Forestry Commission and a move to abolish the concession system.

from Branching Out, newsletter of the Tasmanian Wilderness Society

countervailing pressure, to maintain and extend the reform agenda will depend on the ability of the Independents to retain their roots with their respective

The Legislative Council, however, are likely to frustrate many of the proposed legislative reforms such as Freedom of Information and gay law

Despite possible setbacks, the green momentum is unstoppable. Undoubtably there will be ongoing intense debates, but the Greens will gain increased legitimacy. The Federal Labor Party, increasingly nervous about the next election is keen to ensure that the green/ALP connection is projected successfully onto the Federal level. Out of the fires of anti-conservation, which burnt so brightly seven years ago when Gray came to power, has come a bold new experiment. The ripples of hope from success in Tasmania will spread far beyond the island's shores.

Bob Burton is a researcher with The Wilderness Society in Hobart

What Does the Tasmanian Result Mean for Mainland Australia?

Tasmania's Hare-Clark voting system has made possible a result which would not vet be achievable in any other Australian State or at at the Commonwealth level. It is, however, a real message to major political parties of whatever persuasion. Eighteen percent of preferences cannot be ignored by either the ALP or the Liberals, and comments from senior party representatives in the wake of the Tasmanian results clearly indicate that they recognise this.

That the ALP in Tasmania (an arm of the party not noted for its "green" tendencies in the past) has negotiated with the Greens an agreement which encompasses an impressive array of social, economic and environmental reforms is in itself a landmark. Both sides of the ALP/Green Accord will have strong incentives to make it work -- the alternative is a return to the polls and a possible Liberal victory.

Far more rests upon the Tasmanian Accord than government in Tasmania. All around Australia both "Green" supporters and those who oppose "Green" politics will be looking at the success of the alliance. Environmental issues are high on the political agenda right now. Recent public opinion polls show that 9 out of 10 voters believe that there are real threats to the environment, and that environmental issues are second only to the economy among voter concerns.

Increasingly, voters concerned for the environment, peace and social issues are looking for new directions. If the Tasmanian Accord can succeed, then these people have new hope.

Groups such as The Wilderness Society will continue to do what they do best. Their role can best be filled by stimulating the already growing community awareness of social and environmental problems and by focussing public energies on solutions to these problems. Others may well choose to express their concerns through more direct involvement in the election process.

There are many in the conservation movement who do not believe a new political party, with all the pitfalls of a "party machine", is the direction to take. What is needed is a new style of government. It may well be that a nationally co-ordinated network of committed Green Independent candidates, modelled on the successful team in Tasmania, will win the support of major environmental groups and the community.

One thing is certain: those who oppose "green politics" will work hard to exploit any differences between such candidates. Unity among the "green" groups which are popping up like mushrooms around the country, is essential to the success of "green" politics in Australia. When the next Federal election comes along, perhaps a year from now, a united team working for economic, environmental and social change, might have a substantial impact, even in Australia's traditional voting systems.



Dr Judy Lambert is The Wilderness Society's National Liaison Officer, based in Canberra.

Green Issues won't

Suddenly, all the political parties are turning green -- or so they claim. They're very much in favour of recycling waste, planting trees, soil conservation and the like. But how do they behave when it comes to difficult issues? Peter Blacknell looks at the ALP

The ALP has catered to the green vote (while claiming it has little influence) by protecting wilderness areas here and there. Let's see how the ALP stacks up: judge the party by its record, not its rhetoric!

Nuclear Industry

The right wing of the ALP has reopened the debate on Uranium Mining and the Nuclear Industry. They suggest that we increase the number of mines and add reprocessing to increase the export value of our ore.

Senator Richardson suggests that:

- Uranium markets are increasing
- Australian safeguards are effective
- Nuclear Power is safe
- · Nuclear Power can help solve the Greenhouse Problem

This despite the fact that the price of Uranium keeps dropping below the Australian floor price; the West German flag swaps which make nonsense of our safeguards claims; countries are cancelling orders or converting nearly completed reactors; and energy conservation is 13 times as effective as reducing greenhouse emissions as building nuclear plants.

Arms Exports

In June 1988, the Government eased its arms export controls in the hope of doubling our arms sales. Government policies include encouraging commercial exploitation of ideas from the Defence Science and Technology Organisation (DSTO); privatising some of the facilities of the Office of Defence Production; and stimulating foreign demand for Australian military products. The government's current defence policy will both expand the military industry and increase its exports. It becomes increasingly likely that Australia will supply oppressors with arms or other military services and that Australian military equipment will fuel arms races and flow to areas of tension between states.

National Parks

The SA ALP Government has effectively reduced the areas of National Parks designated for conservation and protection to one third of the existing area. Their promotion of 'multiple-use" areas and emphasis on | Peter Blacknell is a long-time observer tourism and recreation within national

parks threatens wilderness areas such as Wilpena Pound and Flinders Chase. Many NPWS officers who disagree with the new parks policy can't speak out for fear of their jobs; others are adopting the new policies (initiated from the top) whole-heartedly. The ALP has reduced funding to parks, and insists that park managers produce redevelopment plans to raise funds to an appropriate level. In SA, even the Liberals have a better policy on the care of National Parks!

Land Rights

Shortly after the last election, the ALP abandoned the fight for land rights nationally. It has succumbed to pressure from the mining industry and the new right. At Kakadu, the ALP excised one third of Stage III (along the river) as a "conservation zone" to allow mining, particularly by BHP at Coronation Hill. This threatens the entire world heritage wetlands area downstream. Recently, the Jawoyn, traditional owners of the region, laid claim to all of the Sickness Country, which includes the Coronation Hill site. The Federal Government, worried that Federal Land Rights legislation might interfere with the NT Act (which simplifies mining access), has called for two legal opinions, and threatens to amend federal Land Rights Legislation if it makes life too difficult for the mining companies!

US Bases

Despite the new apparently "open access" policy as regards the nature and function of these foreign bases in Australia, the Government is not being candid about all of the functions of the bases. Nurrungar, in its present form, is obsolete, and could be removed. Instead, the government has agreed to an upgrading and extension to the facility.Our foreign policy remains subservient to US goals, and we even had the temerity to try and bully New Zealand into accepting visits of nucleararmed ships into their ports. At a time when even US cities are questioning the entry of nuclear-armed ships, we continue to welcome them in our ports!

of the antics of Political Parties

Green light for the Right?

Parties of all persuasions are moving fast to accommodate an increased number of "green voters." The environment is clearly now an election issue and so the Liberal Party appears to have undergone an unprecedented 'greening'. James Prest asks how deep the foundations of this new-found environmental fervour really run.

Liberal Party environment spokesman, Senator Chris Puplick, 41, has a history of arrests resulting from environmental activism. In his student days he stood in front of bulldozers at antilogging demonstrations; in 1983 he joined Greenpeace activists at the Canadian seal cull; and he's a former member of Project Jonah, the whale rescue team. But does it really make any difference?

Wesley Vale and the Tasmanian election result have pushed Labor and Liberal into a race to demonstrate their greenness to large numbers of indifferent and undecided voters. Labor likes to see the environment as an area where it is in front. But over the last two years backroom operators at the Liberal Party have been working hard to shroud their machine in a cloud of environmental benevolence.

The motivating factor for all this action is, of course, an election. It is due within a year. By law, a half Senate election must occur before 1 July 1990, and the Hawke government is crazy if it hasn't arranged an election for the House of Reps at the same date.

Until recently it was safe to conclude that Mr Puplick's stance was pure hype, systematically ignored by more powerful Coalition members. But it now appears that there may have been some genuine changes. The Libs have lost two elections partly because they have not been seen as green enough, and aren't keen for this to become one of the reasons for a third loss.

The Coalition has perceived a genuine change in awareness of the environment issue and has moved to capitalise on this. The rash of media attention has forced the Liberals to act. In April came John Howard's announcement to the national media: "We are all Greenies now." Then came the Coalition's environment policy relaunch, planned to pre-empt the "galaxy's greatest" environment statement from Mr Hawke. Mr Peacock's words at that time brought back memories of Dr David Suzuki. Consider this

... the world is losing wilderness areas and forests at an alarming rate. We face chronic soil erosion ... Our oceans and rivers are fast resembling polluted drainways ... these are matters we cannot ignore ... future generations will condemn us if we fail.

Having long refused to talk to environmentalists, the Liberals have begun to thaw out. This change began late in 1987 when the Libs arranged talks with the Wilderness Society. More recently, heavies from the new Opposition line-up invited representatives of the more corporatist green groups over for dinner and drinks.

Evidence is mounting of movement within the Coalition to weaken the longstanding "State's Rights" policy. The Coalition's policy document now states:

A new federalist approach to environment policy is pledged with a new co-operative method of dealing with World Heritage Listing questions proposed. National responsibilities are clearly accepted.

Puplick has talked of withholding funding from states which inadequately act to protect the environment. Yet the policy document still retains numerous contradictory references, such as "a co-operative approach," "a matter for the States as they see fit," and above all reiterates the Coalition's rejection of what is seen as the "improper use of the external affairs powers."

Whilst the Opposition's policy document states "our commitment to the protection and conservation of Australia's natural environment and its unique flora and fauna is unqualified," it is quite clear that this policy is qualified by indications of support for "multiple land use" policies such as mining in national parks. This type of policy is justified by reference to the myth that economic development and environmental protection are compatible aims.

The other significant failing of the Coalition's document is the lack of timetables for specific action to be taken to deal with particular problems. There is no time line given for cutting down production of greenhouse gases, making cars more energy efficient and less polluting, and so on.

The turnaround from a 1987 pledge to abolish the National Parks and Wildlife Service and the Department for the Environment isn't aimed at bringing credibility to future discussions with environmentalists. Rather, it's about making superficial changes which won't cause policy conflicts, so that hesitant Liberal voters can place

their votes without nagging doubts about the planet disintegrating.

The greening hasn't just been confined to the Federal Liberal Party. The June reshuffle of the Victorian Liberal opposition involved giving the Environment portfolio to Mr Mark Birrell, one of the Liberal's toughest and most successful front benchers. In the past a transfer to the Environment portfolio would have indicated a demotion. But now, according to the Leader of the Opposition, Alan Brown: "I have elevated it to that [a higher] status by putting in one of my most senior and effective performers."

But until quite recently one could have been confident in saying that no matter how green the Liberals went the National Party could be relied upon to lay waste to any of these initiatives. In Victoria, clear divisions had already appeared between Liberals and Nationals over the proposal for an Alpine National Park, threatening to jeopardise plans for a State coalition. And clashes between the National's John Stone and the Liberal's Chris Puplick had become common.

But 17 June found the new National Party leader, Charles Blunt, announcing to the annual gathering of NSW Nationals that "... we are probably [the party] best equipped to make responsible decisions on environmental and conservation issues." Mr Blunt then went on record as saying that "the environment should be above party politics." He also said, "Many people regard the National Party as hell bent on development. That is not true."

And before this, during the Tasmanian election campaign, one saw the spectacle of H R Nicholls Society member and National Party Senator John Stone proclaiming that he too was an environmentalist. As Queensland National Party leader and Premier Mike Ahern said, :"We're all greenies in politics now. If you're not green you don't survive."

However, it is still not hard to show that talk of a 'greening' of the Right is really a whole lot of hot air. To get an accurate assessment of the situation one must consider:

 the record of past Liberal governments;

- the motives of those providing financial backing to the Liberals; and
- the recent overseas experiences with green conversions of Conservative leaders.

It is clear that the greening of the Liberals hasn't gone that far because they haven't realised that as an issue, "the environment" cannot be separated from decisions about economic policy. The Liberals completely fail to perceive this link. In actual fact the apparently separate areas of "economics" and "environment policy" are both about deciding what is to be produced and how it is to be produced. The section of their policy document dealing with economics and the environment fails to discuss resource depletion, the incorrect pricing of resources, or the need to reform GDP calculations.

It comes then as no surprise to find that there have been few radical changes to the overall orientation of Coalition policy. The coalition only wants to take superficial action on the easy issues. Areas that are rarely seen as environmental such as urban planning and design and public transport, are unlikely to be taken on board by a Liberal government hell bent on pri-



Chris Puplick: Student greenie and Liberal environment spokesman

vatising whatever it can in order to provide tax cuts and interest rate write-offs for the rich.

In addition to privatisation, one must consider the environmental ramifications of the Liberals' wholehearted endorsement of deregulation. This would have disastrous environmental effects, and the experience of the USA under Reagan's deregulatory mania provides a clear example.

Consider the implications in the area of environmental health. Whilst

Australia: The Fraser Years

During the Fraser years the Liberals consistently upheld the policy of "State's Rights" ahead of environmental protection or heritage preservation. Their policy was one of complete abrogation of responsibility — remember the passive acceptance of woodchipping in South-West Tasmania? Remember the Great Barrier Reef Marine Park, Fraser Island, and the Franklin Dam?

But the interesting stuff comes when we look at how the Liberals spent their nvironmental dollars.

- Between 1975/76 and 1977/78, there was a real decrease of 50.3 per cent in grants to environmental groups. In 1977 FoE's annual grant of \$10,000 was completely cancelled.
- The Fraser government made drastic cutbacks in funding of the Federal Department of Environment. Between 1975/76 and 1977/78 the annual appropriations for the Department of Environment, Housing, and Community Development fell from \$77.3 m to \$41.5 m. Massive staff cuts resulted in threats of industrial action (see CR 3,3, 1977).
- Fraser's environment ministry spent 80 per cent of its 1980 budget for environmental protection on measures associated with uranium mining. Spending on research into renewables and energy conservation was consistently kept to a minimum in order to allow large outlays for the Australian Atomic Energy Commission and other nuclear activities (see CR 22).
- The Fraser government encouraged a massive surge of resource hungry development projects, and refused to agree to inquiries into the environmental impact of the rash of proposals for aluminium smelters during this so-called "resources boom."

the concept of environmental health is recognised in the Coalition policy paper, it is unlikely that a Coalition government would be willing to confront Corporate Australia over its contributions to our toxic waste dumps and daily exposure to carcinogens both at home and at work.

Another environmentally unworkable aspect of Liberal ideology is its unwillingness to accept the fact that government action is in many areas the only way to solve environmental problems. The perfect example is the Coalition's opposition to compulsory container deposit legislation. The other side of this coin is a policy of reliance on voluntary action to pick up the tab. Witness the Greiner government's method of cleaning up Sydney harbour — waiting until a group of volunteers decided the problem was so bad they had to do it themselves.

The greening of Australia's conservatives must be seen as part of a trend that has already taken place in other countries. The experiences in the USA and Britain are a good illustration of the conservatives totally ignoring the links between economic policies and the environment (see boxes).

The phrase "deathbed conversions" appears very applicable to the Australian scene. Every party now realises it must make some attempt to create the illusion of a credible environment policy if it wants to attain office. The Coalition strategy is one of taking superficial action on "motherhood" issues in order to make possible continued inaction on larger, and less well publicised, but just as important problems.

Another monster obviously lurking within Liberal plans is a push for the expansion of Australia's nuclear industry. The Fraser years saw Australia on the verge of building uranium enrichment plants, and the acceptance of the greenhouse effect as fact has already brought out a rash of nuclear advocacy on the Coalition's part.

There is considerable evidence that the Green conversions haven't been occurring everywhere throughout the



Wal Murray: "an orgy of environmental overkill"

conservative spectrum. Charles Blunt's statements at the recent National Party conference mentioned above sat oddly with those made at the same function by NSW Deputy Premier Wal Murray. Mr Murray said words to the effect that the problems of ozone depletion and the greenhouse effect were unproven and that there had been "an orgy of environmental overkill."

There remain those committed to saying what they have always said — the figures representing powerful corporate, pastoral and mining interests. Most of these individuals have already been tagged by the media as members of the "New Right"— such as Hugh Morgan, Peter Costello, John Stone, Charles Copeman and John Elliott. Puplick refers to this group (the Far Right of the Liberal Party) as "the Uglies."

These interests, which provide the majority of financial support for the Liberal and National parties, will obviously not be prepared to back a green programme which goes "too far." The Liberal Party is unlikely to be willing to risk the multi-million dollar backing used to fund advertising campaigns which give the Coalition a decided edge at election times. (In the most fully disclosed recent Federal election, in 1984, the Coalition outspent the ALP, pouring in \$7.1 million as against the ALP's \$4.7 million.)

Some conservatives like Hugh Morgan have already decided that the best strategy is to 'dig in'. In a recent speech to the AMIC he argued that:

Britain: The Empress's New Clothes
In October 1988 Mrs Thatcher went on British TV to announce her conversion

to environmentalism, sharing her realisation that "we have unwittingly begun a massive experiment with the system of the planet itself."

In March this year she hosted an international conference on the future of the ozone layer, and announced big cuts in Britain's production of CFCs. Banner headlines in the tabloids announced: "Britain leads Ozone Battle" — fifteen years after the first action had been taken in the USA, Britain remained Europe's largest producer and exporter of CFCs.

As an effort to "separate fiction from reality and genuine achievement from spurious window dressing," Friends of the Earth issued a counter-report entitled "The Environment: the Government's Record." It provided an antidote to the Government's hype, revealing that her government had:

 refused to comply with EEC directives on the shipment of hazardous waste until threatened with legal action;

continued with a massive nuclear expansion;

 allowed 7 million tonnes of sewage sludge to be dumped into the North Sea each year;

 refused to support an EEC proposal to ban shipments of toxic waste to Third World countries;

 continued to fund the projects of the multilateral banks which destroyed huge areas of rainforest and dislocated tribal people; and

 ignored its responsibility to help stop acid rain falling on Scandinavia, letting Britain remain the "Dirty Man of Europe," its largest producer of sulphur dioxide.

Much had also been made by Tory papers of Thatcher's other announcements, such as cuts in sales tax on unleaded petrol and a \$4.5 billion plan to have a 60 per cent cut in emissions of sulphur dioxide by the year 2000. FoE's report made it clear that this progress had been only been achieved after years of consistent pressure from consumers and activists.

... if we do not compromise our position ... then there can be no doubt that ultimately, environmentalism will be as discredited tomorrow as socialism is discredited today.

The Coalition's strategists may soon see greater merit in this backlash idea, modelled on the deregulatory mania of the early Reagan years.

The backlash has, in fact, already begun. Dr Robert Bain of the National Council of Forest Industries has gained much media coverage with his predictions of a "green-led" recession. Recent articles in the Australian Property Journal argue that:

... some of the most committed anti-development campaigners have hi-jacked the 'environment concern' to fool people that development threatens ... the survival of life on Earth.

Hugh Morgan has already pushed the line that there is "a close connection between environmentalist successes and our country's increasing impoverishment." Morgan intends to set himself and his friends in the extractive industries up as the defenders of powerless, ordinary folk, arguing that:

... the articulate environmentalist will win politically, every time, over the ordinary working person who is concerned with job, family, and his local community.

The backlash will get stronger if the economic situation gets any worse, and the media will dutifully pass on the "jobs or environment" lie. If only poorly articulated proposals for an alternative orientation of economic policy are presented the situation can only worsen. Conservatives will focus on no-growth proposals being put forward by environmentalists in an attempt to mislead the public that they represent a call for a decrease in the quality of life.

The backlash strategy could succeed if the reactionaries are willing to adopt the American Right's think tank method. In the US, the American Enterprise Institute feeds 105 different newspapers every day with readymade editorials.

In the light of this possibility and the current concentration of media ownership, I find it difficult to accept the confident prediction of the leader writers of the *Bulletin* that "the environment is fast replacing the economy

THE LIBERAL PARTY'S
COMMITMENT TO THE ENVIRONMENT
IS FIRM & UNSHAKEABLE! as the issue that will make and break

as the issue that will make and break governments."

The major issues for the ordinary voter are about day to day economics and survival. But this is precisely why it is essential that there be the articulation of a credible new economics, one in which profit is not the prime motivator. Earth First's slogan, "no jobs on a dead planet" must become one of general usage, just well known as "jobs or trees" is now. It must be driven home that the deregulatory, pro-business outlook of the Coalition is inherently environmentally destructive.

It is not possible to win elections on environment policies alone. An environmentally friendly economic policy must be put forward — one that explains why we're in this economic mess, why economics is an environmental issue, and vice versa, why protecting the environment is an economic issue.

James Prest operates chainsaws at Friends of the Earth rainforest demonstrations and specialises in the eradication of feral animals.

Guilty or not guilty

Later speakers at the conference strongly put the view that it was possible for birth abnormalities to occur after the male parent had been chemically exposed. Others made the points that the Evatt Royal Commission had been overly legalistic, inflexible and often indefensibly narrow-minded in its acceptance and interpretation of the available scientific evidence.

Professor Axelson summarised the view of all but a handful of the conference participants when he stated that if Agent Orange was an individual then certainly, given the evidence in 1985. that individual should have been given the benefit of legal doubt and found not

However, given the nature of the compound and the economic and political forces behind it, it seemed more reasonable to given any benefit of this particular doubt to the individuals who may have been affected rather than to the politicians and corporations involved in the dispute.

The strongest speaker against the original Evatt findings at the conference was Dr. Jock McCullock, a political scientist from Deakin University and author of a book on Agent

Detecting Long Term Effects

We can only determine in advance whether a particular chemical causes ill health in humans by testing it, in a limited way, on animals. The actual effects of chemicals on humans only become known after sections of the population have been exposed for many years. Only then can long term, complex epidemiological studies show whether cancers or other health effects are related to exposure to a particular chemical and even then it may be impossible to prove a 'cause and effect' relationship.

This is the process going on now in relation to Agent Orange and the health of Vietnam veterans and their families. The problem with this approach is that it always occurs after the fact of chemical exposure: often only after deaths. Is there an indicator of chemical exposure that will warn us in advance of the possibility of developing more serious symptoms later? Dr. Malcolm Barr, a Melbourne toxicologist, believes so.

Dr. Barr's starting point was the effects of heavy metals on the nervous system. He went on to study the herbicide exposure of Vietnam veterans and found that their symptoms were consistent with some symptoms of both multiple sclerosis and heavy metal poisoning. The constellation of symptoms is known as motor neuron disease.

Dr. Barr claims that motor neuron disease is a barometer of environmental toxicity. A rise in the incidence of motor neuron disease suggests the presence of some toxic environmental agent, and so may be an early warning signal for other effects like cancers and birth defects in those exposed.

He believes motor neuron disease is on the increase, based on the findings of recent studies presented by Professor Axelson to the Evatt Revisited conference. Dr. Barr's work may lead to a reliable clinical indicator for severe environmental poisoning. Such a test could mean that remedial political and health care action can be taken much sooner than the usual 20 year lead time between the introduction of a particular chemical and the discovery of its toxic





In 1985 the Evatt Royal Commission found that there was no connection between the exposure of Australian service personnel serving in Vietnam to Agent Orange a herbicide cocktail of 31 chemicals mainly composed of 2,4,5-T - and their subsequent health problems and the birth abnormalities of their children. This finding was met with concern and disbelief by many in the scientific and general community. Paul Di Masi reports from a conference where the evidence on Agent Orange again came under scrutiny.

The conference Evatt Revisited, held in April 1989 at the Australian National University, brought together scientists and veterans in a unique opportunity to re-examine the evidence about Agent Orange. In doing so, it once again raised the issue of the link between herbicides, pesticides and human health.

Health officials and research scientists who supported the original findings by Justice Evatt doggedly defended their positions. Professor Donald Mc-Phee of La Trobe University repeated his findings that there was no connection between pesticide exposure and birth abnormalities, stating that there was no known mechanism for such abnormalities to occur when the person | evident up to two weeks after birth.

exposed was the male parent of that child. His presentation was met with anger by the group of Vietnam veterans present at the conference: although they did not disrupt the presentation they sat, arms crossed, brows knitted and feet tapping. Their personal experience clearly was at odds with this scientific refutation.

Other scientists at the conference criticised Dr. McPhee's findings, saying that it could be reduced to: "I don't believe in something I don't understand." They further postulated that it was impossible to rule out some mechanism we don't understand as being responsible for the birth abnormalities observed. Several models of possible mechanisms were presented later in the conference by Dr. John Pol-

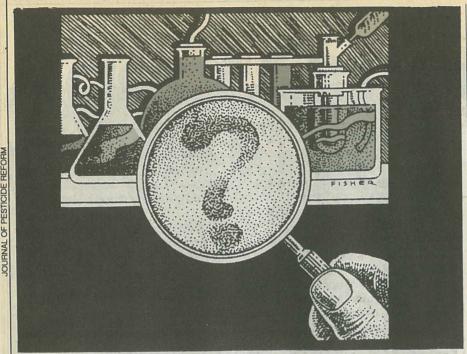
Dr. John Donovan also mounted a defence of the Royal Commission's findings. He had been involved in a survey of the health effects on personnel who served in Vietnam, funded by the Commonwealth Department of Health. Dr. Donovan (who is still employed by the Commonwealth Government) stated categorically that there were no findings in his study that could link pesticide exposure of a man with abnormalities in any subsequent offspring.

In later questioning, led by Vietnam veterans, Dr. Donovan did admit to some basic limitations in his study including only examining half of the available veteran population, the strong possibility of a skewing of his control (comparison) group due to their being in high risk occupations or localities, and only including birth abnormalities



US Air Force sprays Agent Orange on the Vietnamese countryside.

28 · Chain Reaction



Orange. Dr. McCullock stated that the Evatt Royal Commission faced scientific, legal and political questions but chose to resolve them in a wholly political way.

Politics not science

Just imagine for a moment what would have happened if the Evatt Royal Commission had found in favour of the claims of Vietnam veterans that their health had been damaged by exposure to herbicides during their service. As well as the financial impact of paying out compensation to veterans, the finding would have severely embarrassed Australia in its relationship with the US (the 'ally' who did most of the spraying of herbicides) and undermined the US Government's attempts to hold the 'no responsibility' line with its own veterans

and their claims for compensation.

Further, the government of Vietnam would have had a clear basis for redress against both the US and Australian governments for the millions of kilograms of herbicides sprayed on their nation over the period of the US involvement in the war in Vietnam. Herbicide and chemical companies would have been embarrassed, as Agent Orange compounds were similar to many commonly used domestic and agricultural herbicides. There would have been a clamour of people wanting protection from and regulation of these substances.

The question is not how did Justice Evatt come to his findings but rather how, in fact, any other finding would have been possible. As Dr. McCullock said, "The political context of the Royal | Fitzroy.

Commission was defined by those commercial and governmental interests which stood to lose by a finding in favour of the Vietnam Veterans' Association."

This political context helps to explain why 360 pages of the submission by Monsanto (the chemical company who manufactured Agent Orange) came to be incorporated - typographical errors included - into the Commission's final report. It also explains why the Evatt report's epilogue contains a savage attack on 'environmentalists' who are blamed for creating unjustified anxiety in the minds of veterans in an effort to advance their extremist agenda of restructuring society. It comes as no surprise to find it is another example of plagiarism - in this case the unattributed rewriting of a polemical text by a far right US sociologist called Effron.

The findings of the Evatt Royal Commission have become a source of embarrassment for Australia internationally. Its structure, content and conclusions are all flawed. This was made very clear at the Evatt Revisited conference.

As more and more evidence comes to light from long term epidemiological studies conducted overseas, the Commission's assertion that Agent Orange was 'not guilty' of poisoning Australian service personnel who were exposed to it would be ridiculous - if it weren't so tragic for those veterans and their families who were and continue to be directly affected.

Paul Di Masi is the Hazardous Chemicals Campaign Coordinator at FOE

Herbicides and Cancer

A visiting Swedish scientist, guest speaker at the Evatt Revisited conference, stated that there was a strong connection between herbicide usage and some forms of cancer. Professor Olav Axelson made it clear in his keynote address that there was a link between malignant lymphomas and exposure to phenoxy herbicides (like Agent Orange).

Whilst in Australia, Professor Axelson commented on the findings of the Evatt Royal Commission in an interview on ABC radio. He said that such a finding was not valid in 1985, and it certainly is not valid now as new evidence comes to light on the health risks involved in herbicide exposure.

Professor Axelson's presentation to the conference was based mainly on two recent Swedish studies which examined a variety of cancer sufferers and classified them according to occupation and evidence of exposure. From this were drawn 'risk ratios' for a variety of occupations. Crude risk ratios for having cancer were increased for people exposed to solvents, welding, wood preservatives, phenoxy herbicides and fresh wood.

A later study had similar results and further found a tendency towards increased risk for people exposed to phenoxy compounds in combination with certain other substances. This second study supports the case of those who argue for a 'synergistic' effect - that is, where the two substances have a combined effect which is much greater than would be expected from knowing the effect of either one on its own.

olphins in Chains

In South Australia, there has been a lot of controversy and disagreement over the dolphins at Marineland - often leading to heated debate and outrageous accusations. Sue Close looks at the story of six captive dolphins and of countless others who are presently free, of our attitude to the marine environment and of our responsibility to other species.

What is wrong with having dolphins in captivity? Dolphins are being kept in unnatural and unpleasant circumstances for the sake of a few people who find it entertaining to watch wild animals jump through hoops and catch balls. Dolphins are unlike people in many ways although it has been suggested that we share similar levels of problem solving and social interaction capacities.

They are animals who live in a dynamic environment into which they fit perfectly. They surf through waves, play with seaweed and travel for miles. They are also extremely family oriented — living in pods of relations on whom they depend for their survival; they spend their whole lives together. They are primarily sonar animals, unlike humans, who rely on sight. Sound has become a graphic tool for them: they can see through other animals so they

and catching prey.

When a collection boat comes along and seizes a pod member, all that is important to that dolphin is taken away and replaced with repetitive routines and concrete walls. No more can it hunt the living fish. The fish the dolphin now is given have long been dead and frozen. To be fed the dolphin must now tail-walk on command. The sounds and textures of the ocean are lost to this animal. It is condemned to circle a concrete tank for the rest of its life. It no longer has its family, and the sounds that were so important to its survival now just echo off the wall of the pool.

The effect of this stress has been documented in marine parks all over the world. Evidence of dolphins with ulcers, neurotic dolphins and stress induced deaths abounds. One dolphin in a glass sided pool developed a bleeding ulcer which cleared up when the window was covered. Another, less resilient dolphin, smashed against the window until it lost consciousness and died. When the dolphin companion of a pilot whale died, the whale carried the body for days, refusing to eat until the body was taken away. Dolphinaria overseas have been known to dispose of dead dolphins and call their replacements by the same name in order to hide the deaths from the public.

We take our children to the pool side and we watch as the dolphin pretends to be able to count, or sings the Blue Danube Waltz - and is fed the dead fish for his performance. When we laugh and clap the

developed echo-location for hunting | environment — and condoning his presence for our pleasure in the eyes of our children.

> For too long we have treated the dolphin as the friendly clown with a permanent smile. This has lead to tolerance of the slaughter of dolphins by tuna fleets, and their illegal killing by some fishermen even in South Australia. The time has come to call a halt to the outrageous treatment of these creatures and to the misinformation we are giving ourselves and our families. We should respect the dolphin, the environment and ourselves and change our society's behaviour.

> Australia has been involved in the captivity industry for many years. Recently, however, the marine parks have become less popular and are no longer financially successful. As public opinion has moved away from performing animals, legislation against dolphinaria has followed. The Senate Select Committee on Animal Welfare brought down a report on dolphins and whales in captivity in 1985, calling for the phasing out of the dolphinaria industry and the immediate banning of capture of dolphins for display. It found that the alleged advantages of marine parks did not justify the suffering of the animals involved. Following this report. both NSW and Victoria introduced anticaptivity legislation, with Victoria banning the capture, import or display of all cetacea. Two of NSW's three marine parks are soon to be closed.

After threat of closure through financial difficulty, SA's Marineland has narrowly escaped being developed 'cleverness' of the dolphin we are into a larger facility. This would have know if a dolphin is pregnant or has applauding the conditions the dolphin is involved the capture of at least five just eaten. They also use their highly kept in — divorced from his more dolphins. The company concerned

had already been rejected by Victoria after requesting permission to build a Marine Park that was to have included whales, and the onus was on the South Australian government to follow interstate trends away from dolphin

Because the redevelopment required the capture of more dolphins from SA waters, considerable interest in the issue has been generated throughout the country. Greenpeace Australia, Project Jonah and many overseas groups actively lobbied the government to oppose the capture of more dolphins.

Many divergent groups united to prevent the capture. The Building Unions of South Australia decided to put a ban on the redevelopment of Marineland in order to prevent the capture of more dolphins. It was also felt that those concerned with the redevelopment were making little effort to move away from the exhibition of amusing clowns and towards a facility which would cater for the needs of the animals.

Finally the government decided that the redevelopment as planned would not proceed, and international as well as national interest was focussed on the fate of the six dolphins and 13 seal and sea lions already in captivity in Marineland. The options facing the government are to send them to Sea from the danger of such a lengthy journey, the Sea World option must be considered a last resort. Last year five dolphins and a whale died at Sea World — management refuse to disclose details of the circumstances. The vet responsible for them puts the Marineland dolphins' chances of survival at only 40%. Surely this is not acceptable!

The other real alternative —an open-to-ocean concept — has drawn international attention. The captivity industry is at present a multi-million dollar business and any viable alternative to their treatment of dolphins is bound to elicit concern from them and interest from their opponents. The eyes of the world have been focussed on South Australia.

The captivity industry had always claimed that once dolphins have been kept in captivity, they are unable to | Live fish will also be introduced to return to the wild. This was disproved them, giving them an opportunity to Sue Close is an activist and in the US in 1987 and the strong feeling | hunt and chase again.



amongst those against captivity was that South Australia would be the perfect place to set up a permanent rehabilitation centre.

Two dolphins who had spent seven years in captivity were fully rehabilitated back into the wild after a few months intensive 'un-training' by a team lead by former trainer of Flipper, Ric O'Barry in 1987. He has been brought to Australia by the organisation Wildwatch to front a proposal to take World, to put them in a netted off area | the Marineland dolphins, seals and of the ocean, or to kill them. Quite apart | sealions to Granite Island in Victor

> Wildwatch, made up of individuals from the leading organisations in the protection of cetacea — Greenpeace, Project Jonah, ANZFAS (Australia and New Zealand Federation of Animal Societies) and the Dolphin Project has submitted a management plan to the government for the transport and care of the Marineland mammals. The proposed facility will house the dolphins in a netted off ocean area in which the animals can be constantly monitored and fed. The advantage of this facility will be that the dolphins are in their natural environment and enjoying the myriad of stimuli that it affords. After twenty years circling a concrete tank, the effect these sounds and textures will have on the mental health of the animals will be enormous.

The facility itself would become a centre for benign research and marine education, as well as a source of experienced volunteers to assist stranded whales and dolphins.

While Wildwatch's long term aim is to return those animals who are ready to the ocean permanently, under no circumstances would any animal be released who was unlikely to be able to survive. Wildwatch is prepared to care for the animals for the rest of their lives if need be. The choice is whether they end their days in a concrete tank or in the sea where they belong.

There have been a number of proposals in this vein in South Australia. The one that has gained most support is the recent proposal at Coffin Bay. The Museum, Adelaide and Flinders Universities, and the Australian Conservation Foundation are all in support.

The government must now decide whether they will accept a 60% risk for the dolphins and send them to Seaworld and therefore refuse them the opportunity to once again be surrounded by the ocean environment, or whether it will chose one of the innovative alternatives in South Australia which will see the dolphins in their rightful

Open-to-ocean facilities have their place in responding to the decline of the captivity industry. They are in no way to be interpreted as a new form of dolphinarium — they are merely a method for looking after, and perhaps returning to the wild, those dolphins that have been the victims of this

The South Australian government has indicated support for the Wildwatch and Coffin Bay proposals in principle, but appears prepared to send the Marineland dolphins to Seaworld. The Unions have placed a ban on the movement of the Dolphins in the immediate future. Write to the Premier, Mr John Bannon, or the SA Minister for the Environment, Ms Sue Lenehan, if you wish to lobby for the transfer of the Dolphins to either of the open-sea alternatives. We have a responsibility to those individuals and must provide them with the future they deserve.

campaigner working with Wildwatch

A Range of Problems

One of the most difficult environmental issues for the federal ALP is that of uranium mining. An attempt in 1988 to change the policy resulted establishment of a Uranium Policy Review Committee . Pat Jessen appeared on behalf of Friends of the Earth Fitzroy and part of her submission raised some of the incidents which have made Australian uranium mining dangerous.

The Australian newspaper Newspoll 15 June, 1988, revealed that a clear majority 61 per cent oppose increasing the number of uranium mines, 57 per cent are opposed to increased uranium exports, 59 per cent are against uranium enrichment in Australia and an overwhelming 78 per cent are against the storage of nuclear waste in

The survey was conducted on the telephone by trained interviewers on the weekend of June 10, one week after the 1988 ALP National Conference and was based on 1150 interviews of people aged 18 years and over, in all states and in both the city and country.

There are many reasons for the public to feel so strongly about the nuclear issue and the evidence mounts

Three years after the Chernobyl disaster fish have been found in Swedish lakes so contaminated with radioactivity that a person eating the fish would receive the equivalent of a maximum yearly dose of radiation.

Sellafield (Windscale) in the UK, where the links between radiation and leukemia have been recognised by the medical profession. Sellafield is so 'hot' that people can no longer lie on the nearby beaches.

According to Dr. John Goffman, Emeritus Professor of Medical Physics at the University of California:

"When someone sets a so called 'permissible dose' of radiation they are in essence saying they think it is alright to produce cancers which will occur if people get this 'permissible dose'. The 'permissible dose' is a permit to commit random murder on people, and the people are supposed to be happy to suffer this much cancer...in exchange for the benefits that nuclear technology is supposed to confer. While this may be 'acceptable' to the promoters of nuclear technology it may not be acceptable to the people who will suffer the results."

Last year's documents from West Germany proved Australia's uranium was being diverted and enriched to weapons grade material. This is despite the utterance from the Australian government that this could never happen and is scandalous. For this reason alone Australia should immediately stop its export of uranium. The fear of nuclear war is also at the forefront of many people's thinking and is making them more aware on all nuclear matters

The 1977 Ranger Uranium Environmental Inquiry considered the establishment of new uranium mines in Australia, particularly the exploitation of the Ranger deposit in the Northern Territory. The report recommended that the mine should only go ahead with the strictest safeguards. However, since

emerged on the contamination from | have been ongoing. In March this year, Senator Richardson questioned the adequacy of current environemtal protection at Ranger, because of the release of 10.000 cubic metres of contaminated water into Kakadu during January-- the latest in a long line of accidents [see box, next page].

Richardson called for a number of options to be examined that might enable the Commonwealth properly to fulfil its obligations in regard to protecting Kakadu National Park. These options included the possibility of using legal powers under the Atomic Energy Act, the World Heritage Properties Conservation Act or the Australian National Parks and Wildlife Conservation Act.

The ALP Review Committee must recommend that there be no further release of contaminated water into the river system of the world heritage Kakadu National Park. Action must be taken against the Company for ignoring the calls of the Office of Supervising Scientist and the Federal Minister for Environment and releasing water in such a manner that dilution levels could not be monitored.

Roxby Downs

Another concern is that if this dubious situation occurs at the supposedly 'highly regulated' mine at Ranger, then what is happening at Roxby Downs in South Australia? The Roxby mine is accountable to nobody but itself. The joint venturers are only required to report such accidents in annual reports to the South Australian Department of Mines and Energy. Under the Agreement negotiated with the South Australian Government there is no independent monitoring body Over recent years evidence has then, problems associated with mining overseeing operations at Roxby Downs.

Major Accidents and Incidents at Ranger & Narbalek

1977 The Ranger Uranium Environmental Inquiry recommended that tailings at Ranger be covered by two metres of water to reduce the release of radioactive radon and gases and to prevent dry season winds from carrying radioactive dust particles over the region.

1980 February 245 mm of rain fell on the Ranger mine site in five hours. A rapid rise in water level occurred in retention pond number one. The company was forced to make a four metre breach in the tailings dam wall. At the time Ranger was surrounded by a sea of water.

1980 Concrete used in the construction of the Ranger tailings dam was found to be faulty. Impervious plastic was never laid on the dam floor as recommended by the Ranger Inquiry. The dam floor and walls were identified by the Inquiry as major pathways by which contaminants could enter the Magela Creek.

1981 Supervising Scientist recommends Ranger evaluate data leading to the design of an extra evaporation pond, so it could achieve total containment of its water.

1981 In March, radioactive water from the plant run-off pond at the Nabarlek mine spilled from the feed-drains and entered the soil on either side of the pond. The incident was not reported for several months and was only brought to public attention through leaked documents. Monitoring indicated a ten-fold increase in contaminations downstream, yet no published reports have adequately described the effects on the environment.

1981 At the official opening ceremony, exposed tailings appeared inchanged to enable tailings to be kept damp instead of covered by two metres of water.

1982 September The first reports began to appear on the problems with leakage of the dam. The tailings dam continues to leak with much higher levels of radioactivity and much greater seepage than design assumptions.

1982 July Two workers at Ranger, J.S. Burton and P.D. Thomas ingested yellowcake in the packing building. Two tonnes of yellowcake submerged Mr Burton after he unblocked a chute which should have been filling drums automatically. Burton lacked training, which was quite common. It was also common that chutes blocked and that the dust was a problem requiring the use of respiratory equipment. Two tonnes submerged Burton and dislodged his respirator. Thomas left the room, Burton repaired the chute and swallowed 400 grams of yellow cake. He showered and became sick. He was monitored between July 1982 and July 1983 and was assessed as having received almost the annual limit, non fatal dose, as the yellowcake passed out of his body. His lungs were not checked.

1982-83 Ranger actually imported one million cubic metres of water during a drought. Mine management personnel had been recruited from arid climates and were unfamiliar with the variations of tropical monsoonal climates.

1983 July Drinking water at the mine was contaminated by radioactive water used in the processing of the plant. The processing water and drinking water were connected accidentally. It is uncertain how long this situation went undetected. Eventually when the contamination was discovered, the system was flushed out and workers examined for radioactive contamination. Tests on the workers and in the contaminated area indicated "no danger"; however a plumber subsequently found in the pipes a residue of the radioactive substance ammonium diuranate.

1983 September Workers at Ranger went on strike for seven days over health and safety standards. The workers had been drinking radioactive water. The strike was the culmination of a series of incidents at the mine whichthe dam. Regulations were quickly had endangered the health of workers and had repercussions on the World Heritage Kakadu National Park. This strike occurred in the context of the changes to the uranium policy by the ALP caucus in 1983 when Stewart West in protest stood down from Cabinet. It was very serious timing for the uranium workers to voice their concerns, as they have been at times blase regarding health and safety in their industry.

1984 All top Management at Ranger replaced except for one person.

1984 Very low contaminated water was released from outside the Restricted Release Zone (RRZ) into the Magela Creek system. The Supervising Scientist reported some mussels in the creek aborted their larvae.

1985 Pipeline built inside the restricted release zone down to the creek. Cyclone Gretel brought with it 220 mm of rain. Energy Resources of Australia sought permission to release contaminated water into the Magela Creek.

1985 An unforeseen chemical problem with the way the mill tailings were treated necessitated more water being used and added to further build up of water in the tailings dam.

1986 Three week strike at the Ranger mine by workers who cited industrial and occupational hazards at the mine site. The catalyst for the workers action was in March when the sulphuric acid plant was started up at a faster rate than usual. This led to an increased emission of sulphur dioxide in excess of 10 parts per million. Actual level is not known because the company's monitoring equipment had been out of order since November, 1985.

Dispersion of the sulphur dioxide was limited due to a temperature inversion. Up to 40 employees had to leave, suffering watering eyes and breathing problems, up to 40 people were affected in varying degrees, several quite acutely.

The Federated Miscellaneous Workers Union cited leakage problems in the acid plant, uranium mill, evacuation procedures, policies on asbestos, supervision workers, safety training. In addition, average monthly lost-time accident frequency had virtually doubled from 50-100 in 1980 to 115-200 in 1984-5.

1986 Since production commenced in 1981 there had been 24 occurrences involving the water management system which have given rise to regularity concern, of which 16 related to failures in the tailings pipeline or tailings dam seepage collector lines. Eight of these failures occurred in 1985-86 resulting in both Commonwealth and Territory Ministers criticizing the Company. The NT Minister for Mines and Energy ordered the Company not to use its tailings pipeline until a replacement program had been completed.

Major Accidents

1988 Following an abnormally low rainfall wet season in the Northern Territory, more than a third of the tailings in the dam were exposed to the atmosphere. Attempts to dampen the tailings left a dry portion in the centre of the dam out of the range of the water spray system creating a potential hazard to workers, tourists and the nearby town of Jabiru from the release of wind-carried radioactive dust particles.

1988 October Office of Supervising Scientist reports unusually high levels of uranium and radium in samples from retention pond four.

1988 Between 20 and 100 cubic metres of treatment water in the Ranger mill, contaminated with uranium and calcium carbonates overflowed into the restricted release zone of the mine. Although the zone is designed to prevent contaminated water from entering the Kakadu National Park and the company claimed all was safely retained, the incident again called into question the application of 'best practicable technology' at Ranger.

1988 November Half a million tonnes of low grade ore was wrongly dumped on the "safe" waste-rock dump, possibly for as long as six months before another malfunction in detection equipment was found. Ranger took no steps in six months to prevent water seepage from the radioactive pile into the adjacent retention pond which is outside the mine's restricted zone.

1989 January The NT Department of Mines and Energy gave permission to release water into Kakadu National Park creek system from pond next to a pile of radioactive rock that was dumped in error. On two occasions ERA released 10,000 cubic metres of contaminated water over a spillway to Djalkmara billabong, which flows into the Magela creek system. The Office of Supervising Scientist criticised this method of release saying water release at Ranger was "out of control."

There are two principal methods of water release from retention pond four - either via a spillway or via a pipeline. The Supervising Scientist has consistently advised the company and the NT authorities that the spillway is not acceptable because it allows less control of dilution and is more difficult to test for toxicity.

The creek systems is a source of 'bush tucker' for the park's Aboriginal residents. Shell fish in the Kakadu National Park have 20,000 times the concentration per gram of radioactivity than in surrounding areas, Dilution of radioactive substances into the creek system will be accumulated into the food chain. Criticising Ranger's attitude to the incident Dr. Glen Riley the office's director at Jabiru wrote: "I regard this situation as the most serious deficiency shown by Ranger in a long series of malfunctions and operation shortcomings since the mine

1989 February The Northern Lands Council expresses outrage at Ranger Uranium Mines environmental management and the apparent attempts to reduce the effectiveness of the Environmental Requirements and the Office of Supervising Scientist. The NLC called on the Federal Minister for Environment for an immediate review of the Environmental Requirements and to hold a full Inquiry into Ranger's environmental management and into the need for the Office of SupervisinScientist to have a more direct role in the supervision of the Environmental Requirements.

It is absolutely outrageous that one of the largest uranium mine in the world operates with no independent monitoring given the dangerous and accident prone nature of the industry. Where there is vested interest it is obvious "significant incidents" and sloppiness will be kept from the public for as long as the companies can get away with it. Independent monitoring must be established immediately.

Under the same Indenture Legislation an Environmental Plan of Management was required for the mine. This has now been completed but has not been made public. The South Australian State Government have indicated that they would be prepared to release the Environmental Plan of Management for public comment. However the Joint Venturers will not comply. It is of the utmost urgency that the Commonwealth, who is not bound by the legislation, make the Plan of Management available immediately.

articles regarding suppressed workers health and safety reports at Roxby, one can only assume the Joint Venturers have much to hide. An Inquiry into worker's health and safety is urgently required.

There have been 33,000 accidents in the nuclear power industry worldwide since the Three Miles Island in the US ten years ago. That is an enormous testament to a very sick industry.

Contracts

The Review would have been made well aware of the problems associated with gaining contracts for uranium sales. Ranger is prepared to expand production, even though it cannot cope with its current operation, but there are no buyers. Roxby is operating well below projected assumptions and is also unable to find buyers willing to sign the nuclear non proliferation treaty and also adhere to the Australian uranium floor

In the light of recent newspaper | price. The reality is there are not the buyers now nor in the future because the nuclear industry is on its last legs (e.g. see the report by Tim Colebatch, The Age, 30 March, 1989).

To quote Robert J Crew, Resident Manager, Olympic Dam Operations at the Official Opening November, 1988:

"Miners have had their share of excitement and disappointment over the years and no-one here, I'm sure needs reminding that the viability of the industry depends to a large degree on outside influences - world market prices, exchange rates movement etc. Everyone in mining understands how fragile a project can be - a profitable producer one day, a marginal operation the next."

The Review has no grounds to recommend unrestricted mining in Australia and it would be reckless and unnecessarily provocative to open up such a dangerous and unpopular industry in Australia.

Patricia Jessen, May 1989



The Australian Government claims that it is committed to providing the public with information about the role of US bases in Australia. In 1988 with no public debate the Hawke Government renewed the lease for the base at Nurrungar in South Australia. Margaret Colmer discusses the functions of this facility and argues that the base links Australia to US nuclear war strategies.

The agreement to establish Nurrungar was first signed in 1969, providing a ten year lease, and the Joint Defence Communications station began operating in 1971 to receive and process information on Soviet missile launches and nuclear tests. This information is gathered by United States satellites and relayed by radio or submarine cable to the US Strategic Air Command (SAC) in Omaha, Nebraska, which controls US available in the United States. Succes-

strategic bombers.

When the initial lease expired Nurrungar had a periodic tenancy until November 1988, when the Federal Government signed a new ten year ferent. lease. In his parliamentary statement of 22 November 1988, Hawke stated, "These changes also reflect the commitment of this government to informing the public as fully as possible about the facilities." However, apart from the Government's acknowledgement that Nurrungar is a DSP ground station, no information has been forthcoming.

The new agreement was signed, not only without public debate, but without parliamentary, caucus or cabinet discussion. It was drawn up in secret. Prime Minister Hawke and Defence Minister Beazley have something to hide, not from the Russians or the Chinese, but from the Australian public.

The purpose of US bases in Australia has always been shrouded in secrecy on the grounds that their security is at stake even though much so-called secret information is publicly

land-based ballistic missiles and sive Australian governments have limited debate by discussing the bases as a single entity. Although all the bases are essential components of US nuclear war strategy, their roles are very dif-

Nurrungar is located about 500km northwest of Adelaide, just south of Woomera, near a salt lake known as Island Lagoon. The area is part of the land claimed by the traditional owners of the region, the Kokatha people. The base consists of a number of technical buildings and three radomes in a valley surrounded by a restricted area of several hundred square kilometres. In 1986, 472 people were employed at the base - 251 Americans and 221 Australians. Most live in Woomera.

The base is operated by US Air Force personnel and the current commander is Colonel Chester Banachowski. The US military also has a navy task force studying Soviet antiship missiles, and the National Security Agency, which is responsible for communications security. Australians make up almost 50 per cent of the staff, with about 40 per cent of them civilian personnel working for private contractors.

The Australian military, mostly members of the Air Force, are represented by a Deputy Commander, Wing Commander Alan Curby.

Figures obtained under the Freedom of Information Act indicate that the Australian Government spent nearly \$23 million in the 1987/88 financial year on maintenance and staffing at Nurrungar. Added to this are the costs of providing housing in Woomera, roads and services for Woomera and Nurrungar and the wages of the Australian Protective Services officers who police the prohibited area.

Nurrungar's role

Nurrungar is a command, control, communications and intelligence station crucial to US nuclear war fighting strategies and the development of the Star Wars system. It is the overseas ground station for the Defence Support Program (DSP). DSP is a vital element of the world wide US military command and control system, providing "operational direction and technical administrative support involved in the function of command and control of US military forces". Nurrungar controls and monitors the eastern DSP satellite (DSP-E), located 20,000 miles above the Indian Ocean. DSP-E watches for Soviet and Chinese Intercontinental Ballistic Missile (ICBM) launches and is capable of giving 25 minutes warning of an impending attack.

DSP satellites carry two types of sensors: infrared and Nudet. Infrared sensors provide early warning of missile attack by detecting the hot exhaust plumes of ballistic missiles after launching. Nudet sensors detect nuclear explosions in the atmosphere and are capable of detecting 100 nuclear blasts per second.

Nurrungar monitors approximately 500 missile launches a year. Since 1971 it has collected information on 6,000 Soviet missile and satellite launches, providing the SDI (Star Wars) program with a data-base from which to determine the most appropriate design for a boost phase missile defence system.

Verification: Obsolete

Recent developments in US satellite programs have changed Nurrungar's role. While in the past Nurrungar may have had a role in verifying the 1963 Partial Test Ban Treaty and the non-

Proliferation Treaty, for verification purposes it is now technologically obsolete. The new Global Positioning Satellites (GPS, also known as Navstar) have been fitted with nuclear detonation sensors and will take over any verification role of Nurrungar. Unlike the DSP system, the GPS system has no gaps in its coverage. The satellites can communicate directly with each other via UHF data cross links and do not need vulnerable ground stations like Nurrungar to read data.

In 1990 a new kind of satellite, DSP program 14, is to be launched. These satellites will be powerful enough to track missiles after booster burnout and will increase Nurrungar's fighting capabilities, allowing the US during nuclear war to retarget its missiles away from empty silos and to assess the impact of US strikes. They would also assist with the targeting and destruction of Soviet missiles by Star Wars weapons. Already \$126 million has been spent on Nurrungar to provide the necessary technology to integrate the base into

Both the US and Australian governments have acknowledged that Nurrungar is a nuclear target. Ground stations are 'soft targets' and a military strategy is to destroy command, control and communication systems.

Although Nurrungar is technologically obsolete (for verification) it is still important to the United States. It represents a large capital investment, but more importantly its continued presence ties Australia formally into the United States' nuclear war strategies.

Join the protest

At the national conference of the Australian Anti-Bases Campaign, which followed the renewing of the lease 1988, plans were drawn up for a



Protesters at Nurrungar, 1987.

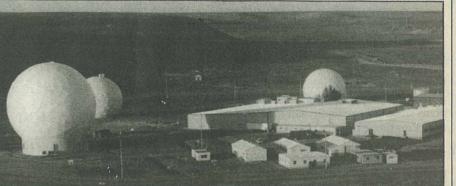
campaign to focus public attention on Nurrungar and to demand the closure of the base, week of national protest against Nurrungar was declared for September 23 - 1 October 1989. On Saturday 23 there will be actions in every state to demand the base's closure. There will be a conference in Adelaide on Sunday 24 and Monday 25, Nurrungar and Our Neighbours which will look at the changing role of Nurrungar and Australia in the Asia-Pacific region, and discuss political strategies for change.

The conference will be followed by a protest at Nurrungar from Wednesday to Sunday. Actions will be held in accordance with non-violent principles and anyone attending the action will be required to undertake non violent direct action training.

For further information on the campaign, conference, or actions at Nurrungar and to send those always needed donations, contact the Anti-Bases Campaign, GPO Box 1025, Adelaide 5001. Ph: (08) 232 3197 or the Anti-Bases Campaign in your state.

Margaret Colmer is an activist with the Anti-Bases Campaign in South

* Material in this article is based on Base for Debate, Des Ball, Allen and Unwin, 1987.



Overview of Nurrungar, near Woomera in South Australia.

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Recycled Paper: Still a Whitewash

The recent release of recycled papers on to the Australian market has been accompanied by much fanfare by media, manufacturers and marketers. But David Vincent argues that the raw material for these products has not yet been used by consumers, and 'recycled' may be a misnomer.

Scratch a paper industry executive and they'll come up virgin white every time. Conditioned to the high white sheet as the pinnacle of papers, the paper companies have been reluctant to market recycled papers. While some of the resistance has been overcome with the release of locally made environmentally-friendly papers there is still a long way to go before we have a sustainable and ecologically sound paper industry.

Australian Paper Manufacturers (APM) and Associated Pulp and Paper Mills (APPM), two of the three major paper manufacturers in Australia, have recently released 100 per cent recycled papers onto the market.

Previously the only 100 per cent recycled paper came from the Sydney based Ecopaper, which has been importing recycled paper from West Germany since 1986 with the aim of proving that a market exists for this paper.

Ecopaper set the standard for recycled paper as the paper they imported was neither de-inked nor bleached. The mill in West Germany

where the paper is produced operates | panies see recycled paper as inferior. At under strict environmental protection requirements. For example, the water conservation criteria is that a maximum of 5 litres of water per kilogram of paper can be used and the water cycle is as near as possible to being closed.

Ecopaper is made from of post consumer waste paper. Post consumer waste paper is generated at the end use, such as photocopy paper used in an office or used newspapers from households. This waste paper contains a lot of ink which remains in the paper, giving the German paper its grey color. The brown recycled paper from Germany contains post consumer cardboard and unbleached envelopes as well as high quality wastepaper and printer offcuts.

Because of their obsession with bright white papers the paper com-

"Putting environmentally friendly papers on the market opens a can of worms for the paper manufacturers ... it throws attention on parts of their operationssuch as pollutants in pulp and paper mill effluent"

a recent public meeting the APPM representative referred to grev recycled papers as 'dirty'. The paper companies are attempting to make recycled paper as similar to virgin white papers as possible. For example, high quality wastepaper is used to produce both Rewrite and Recycle 100 rather than post consumer waste paper.

Both manufacturers have used high quality industrial offcuts from sources such as envelope manufacturers, paper converters and printers. These have been used by APPM for some time as a substitute for imported pulp in its high quality papers. This paper contains very little ink so the resulting product is almost white and is not easily recognisable as recycled paper that has not been de-inked nor bleached.

The manufacturers are missing the point. According to Con Goik of Ecopaper we don't need such a high quality paper for most uses. "It's time that paper companies and paper users stopped judging paper by its appearance and instead looked to the performance. If this is adequate there are no real grounds for rejecting it".

Neither company has made substantial efforts to increase collections of office wastepaper. APPM seems merely to be planning to divert into Recycle 100 the high quality industrial offcuts it is already collecting. APM is making a stronger effort, establishing some source separation schemes in offices with the aim of increasing its collections of post consumer waste and has prepared educational material to assist this. However these programs are very limited.

Waste Paper Wasted

One of the minimum requirements of Friends of the Earth in the campaign for the local production of recycled paper has been that the recycled paper should contain post consumer wastepaper. Use of post consumer wastepaper to make recycled paper creates demand for this material, which has not been collected at anything near its potential. Only one eighth of office paper is collected in New South Wales.

For office wastepaper collections to increase dramatically it will be necessary for APPM to use post consumer wastepaper, as it is the only company with the capacity to make large volumes of recycled paper. APPM however has other ideas. It plans to release another recycled paper Recycle 80 which will contain 80 per cent recycled paper and will be both bleached and de-inked. Office wastepaper cannot be used in this paper because photocopy paper and laser printed paper, which make up an increasing proportion of office wastepaper, cannot be de-inked.

Recycle 80 is not an environmentally friendly paper. De-inking and bleaching of recycled paper cannot be justified when an acceptable alternative exists. If the de-inking process is avoided as with Recycle 100, then photocopy and laser printed paper can be used. If Recycle 80 becomes a large seller it will do nothing to increase office paper collections even if post consumer waste is

APPM is aware that there is pressure on governments to use environmentally friendly papers and has produced Recycle 80 as the compromise that it truly is. This is the paper APPM hopes to sell in large volumes and it appears that they have already agreed to supply it to the Federal government.

The paper companies are keen to obtain government contracts for recycled paper and the government seems keen to prove its environmental

Pressure needs to be applied to the government to purchase the most environmentally friendly paper.

Paper procurement policies

A mechanism used in the United States to create demand for recycled papers has been the introduction of paper procurement programs, many with the specific aim of increasing office was-

tepaper collections. These programs have been introduced at the Federal level and in 17 states. They require that the public sector buy recycled paper. often with a specified minimum level of post consumer waste. Such programs should be used in Australia to push the paper industry in a direction that is in the public and environment's interest.

The paper companies, particularly APPM, correctly discern that marketing environmentally friendly papers implies that other papers are environmentally unfriendly. Putting environmentally friendly papers on the market opens a can of worms for the paper manufacturers because it throws attention on parts of their operations they want to keep from public scrutiny such as pollutants in pulp and paper mill effluent and their management of

Once scrutiny of these aspects of the Earth Sydney.

paper industry occurs, a range of sensible policy options will come into play, such as the full application of the polluter pays principle. These will increase the attractiveness of wastepaper over virgin material and help it overcome the subsidy the environment is paying for the production of paper from virgin sources and the wasteful landfilling of

Getting locally produced recycled paper is an important step in progress towards an ecologically sustainable paper industry. Now it is up to us to keep the pressure on the paper companies and prove that there is demand for environmentally friendly papers from what one day might be an environmentally-friendly paper industry.

David Vincent is the Recycling Campaign Co-ordinator for Friends of the



Sacred Sites **Under Threat**

Early on Friday morning May 26 1989, the Northern Territory Government pushed the Northern Territory **Aboriginal Sacred Sites** Protection Act 1989 through the Legislative Assembly. It replaced the Aboriginal Sacred Sites Act 1980. abolishing the Aboriginal The responsibility of the controlled Sacred Sites Authority.

The NT Government made no serious attempt to consult Aboriginal people about the changes. The primary aim of the new law is not the protection of Aboriginal sacred sites but the accommodation of mining and pastoral interests. It gives the NT Minister for Lands and Housing the power to override Aboriginal custodian's wishes and authorise the desecration of a sacred site by miners and "developers". The Central and Northern Land Councils have rejected the law as "totally unacceptable and an insult to Aboriginal people". Aboriginal organisations from throughout the Northern Territory have



called on the commonwealth Government to intervene. During the Legislative Assembly sittings, hundreds of Aboriginal people and their supporters set up protest camps in Alice Springs, Tennant Creek, Katherine and Darwin.

They were supported by non-Aboriginal church leaders, trade unions and community groups. Last minute appeals to defer the legislation and consult Aborigines fell on deaf ears.

Federal Government

The Lands Councils believe that responsibility for sacred site protection legislation should be returned to the national Government. The fears of Royal Commissioner Woodward and reservations of Justice Toohev about the Northern Territory Government's motivation have been realised with the passage of the NT Aboriginal Sacred Sites Act 1989.

Woodward

In 1974 the Woodward Royal Commission reported to the Commonwealth on how Aboriginal Land Rights could be recognised in Australian law.

Woodward recommended that sacred sites be protected by land rights legislation:

"because of the Aboriginal's personal identification with his land, such places are even more important to him than are places of worship to members of other religions."

Woodward also said the legislation protection laws. should be Commonwealth. He was worried that the NT Legislative Assembly had little respect for Aboriginal rights and would rather satisfy local pressure

"The basic legislation should be introduced into the Australian Parliament. I think it is important that it ministrator in Council.

should be protected in such a way that its provisions cannot be eroded by the effect of any Northern Territory Ordinances."

Both the Whitlam and the Fraser Government's land rights Bills provided for the protection of sacred sites. But pressure from the NT Country Liberal Party led to Fraser agreeing that the NT Legislative Assembly should have the power to legislate to protect

Section 73 of the Aboriginal Land Rights (NT) Act 1976 gives the Legislative Assembly this power.

Toohev

A 1983 review of land rights, including sacred site protection laws by Justice Toohey did not accept the Land Council's position that sacred site protection be returned to the Land Rights Act "... unless the Territory legislation is demonstrably inadequate or is not working effectively."

Toohey's recommendations for improving the Sacred Sites Act were ignored by the NT Government. The new NT Act is demonstrably inadequate.

NT Government abuses its power

Since winning the power to legislate for sacred site protection the NT Government has abused this power and acted in favour of vested interest groups like pastoralists and miners rather than seriously accepting the need for proper

The NT Government introduced the Aboriginal Lands and Sacred Sites Act in March 1977. It proposed that because of the need to consider the interests of landowners (sic), that sacred sites off Aboriginal land would only be protected by decision of the Ad-

tee of the Australian Parliament and the NT drew up another law. This law, the Aboriginal Sacred Sites Act, was delayed for two years by the NT Government and after it was finally passed in 1979, the Government delayed for another year the setting up of the Aboriginal Sacred Sites Protection Authority.

Since the establishment of the Authority, the NT Government has attempted several times to weaken its

In 1983 the Act was amended to give the Territory Minister the power to the Prime Minister to act. A delegation direct the Authority. The Minister of senior Aboriginal leaders, led by the directed that all signs protecting sacred | Central and Northern Council chairsites be taken down.

make further amendments which would have weakened the protection of sacred sites. (One novel feature was the Federal Government should use its proposal to make it a criminal offence to write that a sacred site was a sacred site if the Territory Government said it was not.)

In 1984, a NT Government Minister sites... was prosecuted after a bulldozer desecrated a sacred site near Alice Springs. The charge was withdrawn because it was found that under the Act, the Crown had immunity from prosecu-

Confrontation between the Sacred Sites Authority and the Government | missed the subsequent letter from the continued. The Government repeatedly that sacred sites were holding up the economic development of the NT.

In recent months NT Government authorities and departments have been encouraged to approach Aboriginal custodians directly, by-passing the organisations with the legislative function and the expertise to perform sacred site avoidance surveys - the land councils and the Sacred Sites Authority.

The Final Act

In August 1986 the Chief Minister announced to rousing cheers at the annual convention of the Country Liberal Party that there would be an inquiry into the Sacred Sites Authority.

A committee of three NT public servants was set up. "The Martin Report" was presented to the Government in late 1987, but not released until August 1988. It recommended that the NT Minister for Lands should have the power

The Bill was rejected by a Commit- to override and revoke the decisions of Aboriginal custodians.

In October 1988, without consulting Aboriginal people, the NT Government introduced the Aboriginal Areas Protection Bill (the name of the Bill was later amended to the Northern Territory NT Aboriginal Sacred Sites Bill).

The Federal Government has the power under the NT Self Government Act to disallow the legislation. It also has the responsibility bestowed on it by the Australian people in the 1967 referendum.

Aboriginal people are appealing to men, flew to Canberra in June to see the The Government also attempted to Prime Minister in a bid for Federal Government intervention.

"We made our position clear. The power to disallow the new law. The law is not about protecting sacred sites but providing mining companies with 'legal" ways of desecrating sacred

"The Prime Minister urged us to attempt, once again, to convey our concerns to the NT Government in order to give them a last opportunity to revise the Act," the Land Council Chairmen

The NT Chief Minister has dis-Central and Northern Land Councils which detailed the principles of site protection which are not negotiable including Aboriginal, rather than Ministerial, control of sacred site protection.

This article was based on material from the Central and Northern Land Coun-



The agenda for government in Central and Northern Australia has been controlled by a small interest group mainly located within the ruling Country Liberal Party' John Christopherson

Women's petition

The women of Minjilang presented Darryl Manzie with a petition setting out their concerns. This is what they

• Warramungingundil is a woman. It was when Warramungingundil first came that all ou sacred places as well as the law that we live by were given by us.

• Both men and women live by this law today. And our new generation will have to live by it too. Everything we do in our daily lives we do by paying attention to our law.

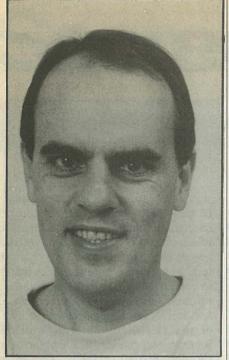
• Our law cannot be changed or taken away from us and neither can our sacred places.

• Our children come from these places. And, when we die we go back to them. We make sure these places are looked after properly and we make sure that they are protected because this is where our children's children will come from and this is where we will go when we are finished.

• People alive now will fight to protect those places. They will fight to have a place to go when they die and so that there will be new people to come after them. All of our children are taught this and they

• Our law is not like the artificial law of the balanda. We are proud to be part of our law. No other people can translate our law to a full understanding. But, you do need to understand this. When we talk about Sacred Sites we are talking at the same time about our language, our skin groups, our land, our law and our whole life. None of these things can be separated from the whole thing. This is why when we talk about Sacred Sites we talk as one people with one voice.

 And what we are saying to you with one voice is this: we do not want your Aboriginal Areas protection



On Tuesday 30 May Tim Anderson was arrested and charged with three counts of murder for the Hilton bombing. Georgina Abrahams looks at some issues behind the re-arrest and the progress of the campaign to expose it as a frame-up.

Four years ago Tim, Ross Dunn and Paul Alister were released and unconditionally pardoned after serving seven years jail on the charge of conspiring to murder National Front leader Robert Cameron. This charge was based on a police 'verbal' and the evidence of police informer Richard Seary, described by High Court Judge Lionel Murphy as "the most unreliable person ever presented as the principal prosecution witness on a charge of serious crime." The motive behind the 'Ananda Marga case' was to scapegoat Ross, Paul and Tim for the Hilton Bombing. Since no charge was laid over the Hilton bombing, it was still possible for Tim, or anyone else, to be so charged.

Those newly acquainted with the Tim Anderson case and its long history may ask: 'Why Tim?', 'Is this a frameup?', and 'Who did bomb the Hilton in 1978?

Frame-Up if at first you don't

succeed

Why Tim Anderson?

The answer is: to pursue a vendetta from the original frame-up; to shut Tim up; and to avoid a public enquiry.

Tim has remained in Sydney since his release from jail and has been involved in a wide range of activities, including some which have been severely embarrassing to police involved in the original frame-up. Serious questions arise over the role of a senior police officer exposed by Tim Anderson as a perjurer and basher at an International Legal Conference in Sydney in mid-

There must be a question on the role of this man in second frame-up.

Frame-up?

In 12 years only one unreliable witness has attempted to connect Tim to the Hilton bombing. Now the police have three more, two of whom were discredited witnesses at the 1982 Hilton Bombing Inquest. Will they be like the notorious Seary?

At a public meting in Sydney on June 6 1989, a lecturer in law, Mr David Brown, put Tim's re-arrest in the context of the NSW government's law and order offensive in a society where the demands of the market take priority at the expense of human needs and freedoms. Tim is seen by these people as a threat who must be silenced.

Who did the bombing?

At the 1982 Hilton Bombing Inquest, Senior Constable Terry Griffiths, injured by the explosion, gave evidence implicating NSW Special Branch and other security forces in the bombing. For years he has stated that ASIO bombed the Hilton to justify their threatened existence by creating a 'terrorist' scenario to win back funding and power. Griffiths has pleaded for a full inquiry into the bombing for over paign against the previous frame-up.

eleven years and the Liberal Party. before its election to government, promised such an inquiry.

But while prosecution against anyone is in place, an enquiry can't go ahead. Who has what to hide?

What is really frightening about all this is that in the name of sub judice restrictions, mass media channels are now refusing to run any historical perspectives on the Hilton allegations, or any comment by Tim or people supporting him. At the same time, extensive uncritical coverage is being given to police allegations.

If sub judice really means that nothing can be said about a matter before the courts, then police allegations should be censored, along with protests of innocence, rights of reply, expressions of public concern and historical perspectives.

Tim should not have to spend another eight years of his life fighting for justice. In his words:

How is it possible that, after the failure of such a scandalous frame-up, in which three innocent people spent seven years in jail, police are allowed to return to square one and begin all over again: putting me and my family and friends through the stress and agony of potentially years of court cases and the worst sort of lies?

The Campaign Exposing the Frameup of Tim Anderson (CEPTA) is calling for the false charges against Tim Anderson to be dropped and for an investigation to be held to show how and why this second frame-up occurred. If you'd like more information contact: CEFTA, PO Box A737, Sydney South, 2000 Telephone: (02) 281 5100

Georgina Abrahams is active in the women's and environmental movements, and was involved in the cam-

Chaos: Making a New Science by James Gleick. Cardinal Books,

Reviewed by Chris Sanderson

The cover of Gleick's book on chaos is tantalisingly subtitled Making a New Science. And what better time could there be for the emergence of a new science than what promises to be the warmer end of the twentieth century? Just in time to solve some of the more difficult environmental problems which are the legacy of the old science, per-

When I came across this book I knew little about chaos except that it was something to do with unpredictability and the weather. I wondered, optimistically, if this new set of ideas mightn't have some different perceptions to offer us as we all worry about the unpredictability of the weather. Unfortunately my environmental preoccupations aren't shared by the author, so that particular set of questions has gone unanswered.

Nonetheless, it's a good book. Even when I knew it wasn't going to address the issues I was interested in, I kept reading. The reason is that this really literal implications of Newtonian | Chain Reaction editorial meetings.

does seem to be a whole new direction for science. It is the beginnings of a science of all the things that don't have nice, tidy linear equations to describe

In the past, the physical sciences have tended to make their work manageable by 'assuming away' many of the messier aspects of the real world so the lab, the test-tube, the computer model are all perfected abstractions from which we deduce the workings of nature. Yet the real world creeps in, can't possibly be kept out. Until recently, the messy bits of the results have been discarded as 'background noise'. But scientists who are interested in chaos have started to look at the 'noise' that is part of the simplest phenomena - things that science has seemingly known inside out for centuries, like the motion of a pendulum - and seen strange, chaotic, unpredictable pat-

So what is it that's so fascinating about this approach? Like quantum theory earlier this century, this new view of the universe tends to drive people to philosophy. Since Newton we have been stuck in a mechanical universe. The physics are that, using the physical laws of nature alone, and given complete enough information about the starting point of any system, you can predict completely what will happen to a system. Total determinism. The pawprint of the determinists is to be found all through the centuries of science that followed Newton - it forms the heart of the scientific method, which is founded on predictability, and the basic rationale for reductionism. And, in the quest to control nature, it's produced effective science and technology.

But chaos knocks a huge hole in this way of thinking. It shows that if we watch apparently orderly systems long enough, they become unpredictable and disorderly. They generate strange and wonderful 'fractal' patterns that are infinitely intricate, and which have become a kind of scientific mandala for those so inclined. Basically, chaos allows adjectives like 'strange", 'wonderful' and 'mysterious' to intrude back into science - which has been trying to get rid of them for centuries.

I suspect this is not the best book about chaos. But it's chatty - almost gossipy, and very readable. You don't need a PhD to understand it. It may give you, as it has given me, an appetite for more. Maybe chaos is going to quietly change the world, or maybe it will simply give the war and profit machine a new, subtler lot of tools for a new generation of technologies. Maybe it will help us come to terms with the greenhouse effect, or maybe it will simply remind us that we can't predict everything and that we are not really, after all, in control. It's probably too soon to say.

Chris Sanderson is a Chain Reaction subscriber who occasionally attends

REVIEWS

Turning up the Heat: Our Perilous Future in the Global Greenhouse by Fred Pearce, Bodley Head. \$17.95

The Greenhouse Effect: Living in a Warmer Australia

by Ann Henderson-Sellers and Russell Blong, University of NSW. \$12,95

The Greenhouse Effect: A
Practical Guide to the World's
Changing Climate

by Stewart Boyle and John Ardill. Hodder and Stoughton. \$10.95

Reviewed by Stuart White.

Has anyone ever stopped to ask the obvious question about the greenhouse effect? We've known since the warning of Arrhenius in the 1890's that the delicate balance of gases in our atmosphere controls the temperature of our oikos or home and that the steadily increasing input of industrial pollutants could raise the temperature.

James Lovelock in the early 1970's initiated debate on the 'Gaia Hypothesis': that the Earth is a living organism, in which the atmosphere is a dynamic part. And yet suddenly it's big news. Books are being written. Careers are being made. Conferences are being held. Why did it take us so long to put the pieces together and who was and is responsible for kicking the issue along now? Reading these three books provides an insight into this question, but before doing so it's important to make a few points about the issue in general. Firstly, the implications of seriously attempting to reduce greenhouse gas emissions are profound. One thing the greenhouse effect tells anyone who is prepared to consider it is that the era of the 'technical fix' is over. Fundamental change in the nature of in-

order to make inroads into the this observing the physiological effects, symptom.

Secondly, the greenhouse effect is just that: a symptom, just as the depletion of the ozone in our stratospheric umbrella and the increasing burden of organochlorine compounds in all living things are other, potentially more severe, symptoms of our flawed system.

Thirdly, the questions and the uncertainties upon which all the scientific models must eventually depend, those relating to rates of greenhouse gas emissions, are social and political. It is individual and collective human behaviour which has got us into this mess and it will be individual and collective behaviour which will help us out of it.

Fred Pearce, the news editor of New Scientist, has written a book Turning up the Heat which is useful for understanding the processes and interactions that give rise to the greenhouse effect and, as a bonus, ozone depletion. Its quality is in the easy-to-follow explanations, accessible to anyone with high school chemistry. In fact this book would make an ideal reference for chemistry and physics teachers wanting to introduce students to topics of environmental concern. It is also the first time I've seen a good explanation of the atmospheric 'double whammy' that carbon monoxide from motor vehicles represents, as a gas that is reducing the cleansing ability of the atmosphere.

provides an insight into this question, but before doing so it's important to make a few points about the issue in general. Firstly, the implications of seriously attempting to reduce greenhouse gas emissions are profound. One thing the greenhouse effect tells anyone who is prepared to consider it is that the era of the 'technical fix' is over. Fundamental change in the nature of industrial society will be necessary in

observing the physiological effects, rather than looking at how best to remove the source of the heat. These are not manuals for those wanting to find individual or community solutions to our planet's discomfort. The latter work, The Greenhouse Effect: Living in a Warmer Australia, devotes less than two of the 200 pages to an inadequate consideration of greenhouse solutions. I can only presume that Robyn Williams was writing about another book in the quote highlighted on the cover: "Just what we need to let Australians do something positive."

The best work so far is that by energy researcher and campaigner Stewart Boyle and Guardian environment writer John Ardill. This book, The Greenhouse Effect: A Practical Guide to the World's Changing Climate is to be released in Australia to coincide with the visit by international greenhouse researcher Bill Keepin. It would be unfortunate if the reading public were to be confused by the coincidence of the main title with the Australian work, because the Boyle and Ardill book is the first major publication to provide a thorough analysis of the crucial energy

issues, including a welcome critique of the hoary old nuclear chestnut.

Of course the information on energy is not new. The environment movement has been pointing out for over a decade that there is a need to reshape patterns of energy use and industrial production, regardless of the greenhouse effect. Boyle and Ardill restate this case, but make the links to other related issues such as deforestation and equity and the third world. As they point out: "Global warming is the threat which bundles up all our woes into a single problem and a single solution." They might have added, not a single solution in the technical sense. Referring to the United Nations priorities for the rest of this century the UN Secretary-General Javier Perez de Cuellar and the Norwegian Prime Minister Gro Harlem Brundtland wrote: "To achieve these goals a new global ethic is needed based on equity, accountability and human solidarity – solidarity with present and future generations - rather than on the tyranny of the immediate."

The Boyle and Ardill book provides all the usual information about climatic change and projections for the future, but it is complemented by a program for action which goes a long way past construction of sea walls. Each chapter has a well researched 'Action Check List'. This is a refreshing addition to a discussion the agenda for which has been set by the narrow focus of the scientific community or the derivative and uncritical mass media. This book is recommended, despite the use of the grubby masculine nouns and pronouns which mar all three works. On this score we still have a long way to go.

Stuart White is an activist with Friends of the Earth Sydney and has just completed a doctorate in Physics.

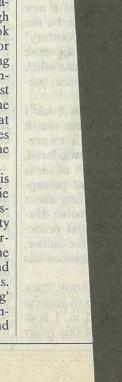
The Greenhouse Effect: Living in a Warmer Australia

by Ann Henderson-Sellers and Russell Blong, Sydney, NSW University Press, 1989. \$12.95

Reviewed by Dr. Bill Metcalf

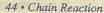
There is little doubt that the 'greenhouse effect' has caught the attention of many Australians in 1989. Media coverage, both serious and flippant, public meetings, talkback radio and even after dinner conversations often focus on this issue. One is reminded of the ardour with which ZPG was embraced in the mid-seventies and nuclear winter feared in the mideighties. But what is 'the greenhouse effect', and how well is it understood by scientists and the public? Henderson-Sellers and Blong have set themselves the timely task of producing a book which explains the greenhouse effect with neither trivialisation nor overdramatisation.

Their excellent second chapter presents a succinct coverage of how the greenhouse effect operates. No scientist questions these natural processes, as they have always been with us, and indeed life on earth, as we know it, is totally dependent on the warmer conditions which result. Neither does anyone argue that there has been no increase in 'greenhouse gases' - carbon dioxide, nitrous oxide, chlorofluorocarbons and methane. That increases in the concentration of these gases should result in a rise in mean temperature is also widely accepted. What is not so widely accepted is the impact of a rise in temperature on water vapour levels in the atmosphere (as clouds), and what effect this will have on temperatures. It might add to or reduce the impact of other gases. There is even less general agreement, then, over how much global temperatures will rise, where, and with



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REVIEWS

droughts and cyclones. And still less can we accurately predict the sea level rises which might ensue.

Regardless of what we do, the already increased levels of greenhouse gases will have an effect on our climate. We can ameliorate climatic changes by altering our global consumption of fossil fuels, and by stopping the destruction of forests, but changes will ensue, nevertheless. Local government politicians cash in on the hysteria by offering free trees for people to plant - the presumption being that trees work against the greenhouse effect by absorbing CO2. While this effect does indeed operate, it might be more than offset by the 10km drive to collect the free tree!

The authors somewhat flippantly compare the strategy of saving rainforest with the need to continually plant huge new forests to take up our CO2 emissions. Yet while retention of ma-



leviate the greenhouse effect, chopping down exacerbates the problem, regardless of whether the wood is burned or do indeed fix carbon, so too does growing corn or wheat, often at a faster rate. The point is not to fix carbon but to ensure that once fixed (in the form of wood or coal) it remains as is.

The authors recognise the imbalance between public knowledge and enthusiasm on this issue. They report the results of a small survey which they conducted on a sample of people attending Greenhouse 87 - a workshop designed to broaden public awareness. There were, as one might expect, high levels of acceptance among this rather select group, of the notion of there indeed being a 'greenhouse effect'. Knowledge about the issue, however, varied greatly. To many it was almost an issue of faith.

the scientific community, Henderson-Sellers and Blong asked people what level of confidence they would expect scientists to have in their predictions, the seriousness with which Australians before action, which might be costly, should be taken. While the authors expected that members of the public would demand a level of confidence of 90 per cent, they found that the overwhelming majority only expected scientists to have a 50 to 70 per cent confidence in their data, before action should be taken. The authors state (p165) " ... the observational evidence for greenhouse warming is not yet fully conclusive (but) it appears that the level of confidence already held by scientists closely involved with the greenhouse issue far exceeds the degree of certainty which is required by the respondents ... before action should be taken." As Professor Ian Lowe recently observed, in Australian Environmental Studies at "it is better to assume the greenhouse | Griffith University.

what meteorological effects such as ture tropical rainforests does not al- effect and have a building a metre too high, than not to, and have it 10cm too

> Whether or not the general public allowed to rot. And while growing trees take it as seriously as does the sample used in this book, is debatable. Recently newspapers (The Sunday Mail, 25 June, 1989) reported a survey which showed that 77 per cent of Australians are either 'very concerned' or 'concerned' about the greenhouse effect. This certainly seems impressive until we note that the greenhouse issue ranked 35 out of 40 in terms of publicly perceived 'crucial' problems, ranking equally with "Having to watch same commercial more than twice per hour", and behind issues such as "High cost of service from new car dealers" and "High cost of petrol"!

This short, very readable book should be a great help in educating people about the real dangers, and not the hysteria of the greenhouse effect. It Given the lack of consensus within clearly outlines ways in which we can plan now to cope with it, as well as ways we can minimise its impact.

While it is certainly easy to question view the greenhouse effect, there is little doubt but that we should take it seriously. After all, the changes which might alleviate the greenhouse effect - tree planting, maintenance of tropical rainforests, and more energy efficiency are all worth doing even if there was no greenhouse effect. We have nothing to lose if we take the greenhouse effect seriously, and are wrong, but much to lose if we ignore the predictions, and are wrong! Only fools ignore such odds and do nothing!

Dr. Bill Metcalf is a Chain Reaction subscriber and Senior Teaching Fellow

RESOURCES

The Sanitary Protection Scandal

Alison Costello, Bernadette Vallely and Josa Young Women's Environment Network (UK), 1989.

This book investigates the implications for the environment and human health of sanitary towels, tampons and babies disposable nappies. The 'sanitary protection' industry has been shrouded in secrecy for too long. This book unearths all those facts they definitely don't want you to hear! Although a British book it provides useful information that applies to the Australian situa-

Available from: Friends of the Earth Bookshop, 222 Brunswick St Fitzrov or Women's Environmental Network, 287 City Rd Islington London ECIV ILA United Kingdom.

Inside Ciba-Geigy

Olle Hansson International Organisation of Consumer Organisation 230 pages, 1989, \$7.95 Dr Olle Hansson's book exposes some of the unconscionable operations of the pharmaceutical giant Ciba-Geigy.

The book is in three parts. The first, is the story of a drug clioquinol, which ruined thousands of peoples lives. The story is told by the author who, early on, became deeply involved in exposing the tragedy and did more than anyone else to bring it towards a conclusion.

The second part covers more recent examples of drug marketing by Ciba-Geigy and other transnational companies are examined.

Olle Hansson died before he could finish the book, so the final section was written by an associate and describes the events that followed Olle Hansson's long struggle with Ciba-Geigy. Available from: IOCU, PO Box 1045, 10830 Penang, Malaysia.

Pegasus Networks Computer Network Membership \$30,

basic subscription \$12 per month

Pegasus Networks is an independent member of the worldwide Association for Progressive Communications. APC member networks share common goals to provide a low cost service for world peace, and to devote ten per cent of their user fees to promote further global spread of the network.

By connecting any brand of computer to your telephone with a modem, and utilising the facilities provided by the Pegasus Networks project, you will be able to:

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- participate in worldwide computer conferences.

The project will be launched in September 1989 and will provide links with a gathering group of Australian users, along with participants in PeaceNet and EcoNet (USA), GreenNet (Europe), The Web (Canada) and many other networks on other continents. Available from: PO Box 201 Byron Bay, 2481, New South Wales

The Ozone Layer and The Greenhouse Gases

United Nations Environment Programme Booklets, 1989, \$18 per set includes postage

The United Nations has produced two information booklets about the Greenhouse effect and ozone depletion.

Available from: Australian Conservation Foundation, 672B Glenferrie Rd, Hawthorn 3122 Australia.

What Technologies Are Appropriate?

Geoff Lacey Pax Christi 19 pages, 1989, \$4 includes postage

This booklet explores technology, a central issue of our time, how people see it, the historical roots and, above all. the alternatives to the present system.

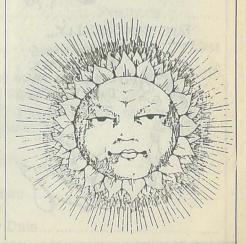
It's argued that the present system of technology has involved the domination of nature for supposed human benefit

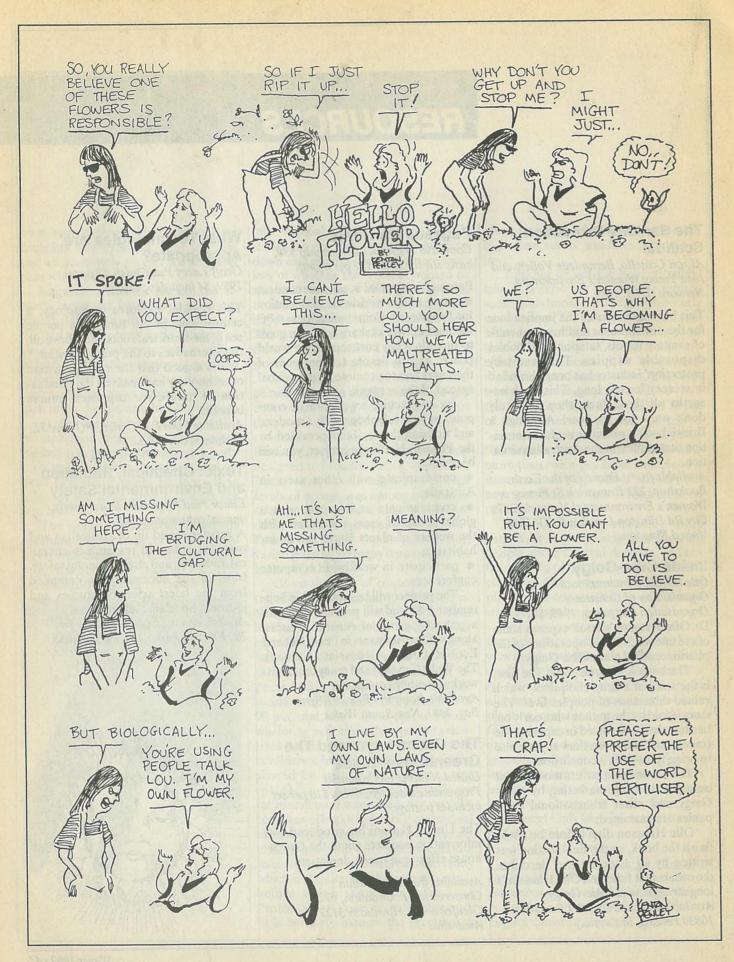
Available from Pax Christi, PO Box 31, Carlton South 3053.

Toxic: Chemical, Radiation and Environmental Safety

Editor Paul Rogers Six issues yearly, annual subscription \$60.

A regular round up of Australian and overseas news and research in chemical, radiation and environmental safety. Most of the information is compiled from the latest scientific studies and journals. Specialist information. Available from: Ecol Data, PO Box 206 Everton Park, Queensland 4053.





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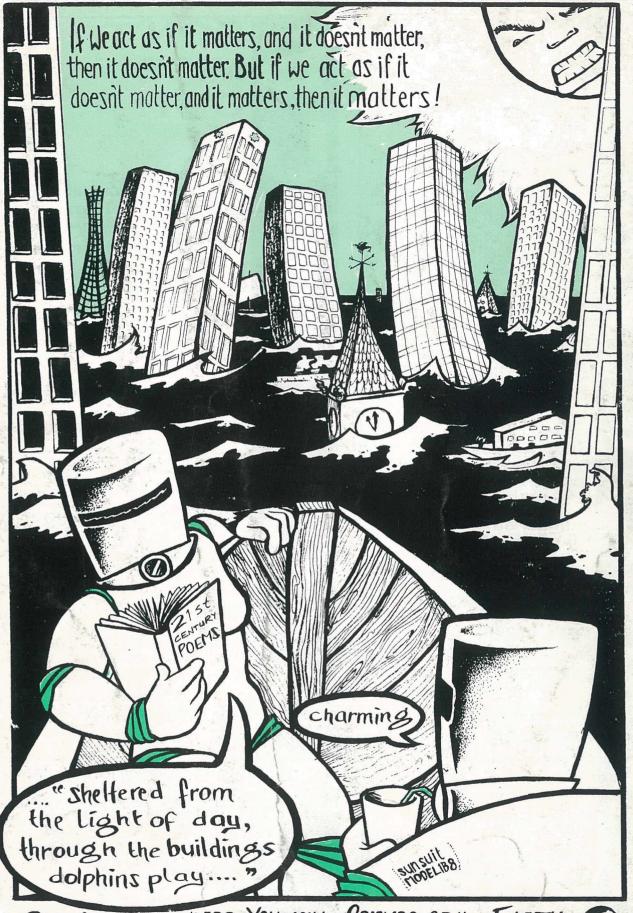
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