

Chain Reaction

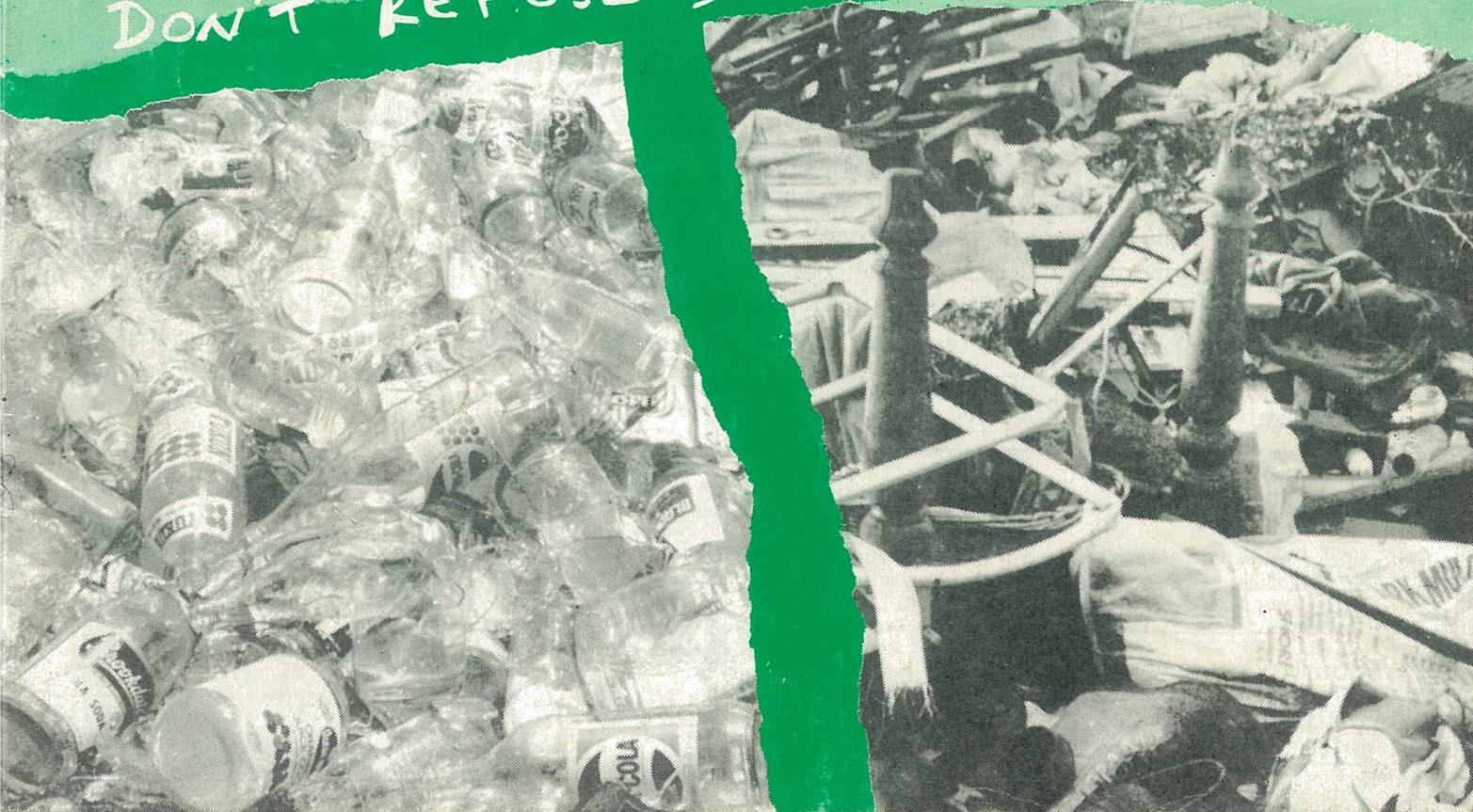
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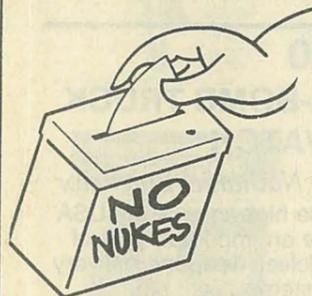
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LETTERS



Public Transport

In view of 'Automania' (CR 53), I'd like to inform readers of Chain Reaction of the Public Transport Users' Association. Such organisations are a necessity in these mad times. It was formed several years ago to promote the use of trains, trams and buses in the interests of our scarce fuel resources and the protection of the environment. It is affiliated with Transport 2000 International

Membership is \$10 per year (concession \$5) and

\$15 for two years. Members receive a newsletter. Members are held on the first Wednesday of each month (except January) at the YWCA, Room 9, Level 3, 489 Elizabeth St, Melbourne at 5.30 pm. Address of: Hon. Secretary PTUA, Box 324, Collins St. Melbourne 3000. Subscriptions to: Hon Treasurer PTUA, 76 Grandview Grove, Rosanna, 3084.

Anyone care to come along for the ride?

Brenda Slavoff
Burnie Tas.

A Response

Part of the reason why the Left fails to be a genuine opposition to the Right is their emotional, knee-jerk reactions against the institutions from whence the New Right power emanates. So Fran Callahan (Letters, CR54) does not think that education is important in trying to oppose powerful groups such as politicians, big business and academia. How do you ever hope to change these institutions by merely criticising them, while they carry on regardless?

And what are 'the basic politics of the movement' to which Fran lays a claim on its behalf? Is it only valid to save our environment providing it is done along the 'right' ideological line?!

As a Democrat I am constantly paid out by the grassroots for being a bourgie trendy greenie, and admonished for putting so much value on electoral goals. I do *not* undervalue grassroots activity, as I do a lot of work in that area myself. But not to want to understand your opposition and thereby not really challenging them is a dangerous ideological luxury we can no longer afford. We need both grassroots and people capable of confronting the system *on its own terms*, for only that way can we hope to begin to change it.

Ingrid O'Sullivan
Clovelly Park, SA

You are invited to write letters to Chain Reaction with your comments on the magazine or on other issues of interest. Letters should be kept within 300 words so that as many as possible may be published. Longer letters may be edited. Write today to Chain Reaction, GPO Box 530E, Melbourne, Vic 3001, Australia.

Non-nuclear Sweden

Your last issue (CR 54) is a particularly good one, and I gladly enclose a cheque renewing my subscription.

However, I should be grateful if in your next issue you would correct the mis-statement about nuclear supplying 'half the energy needs of Sweden' (page 5). This may well be correctly quoted from the *Australian Financial Review*, I cannot check it because I do not have the date of their article. But I have just been over to the ANU library to consult the UN's 1986 *Energy Statistics Yearbook*, the latest available, and according to that nuclear provides just about half Sweden's electricity (table 34), and in turn electricity consumption is 38 per cent of all commercial energy consumed in Sweden (table 1). So, please note, nuclear may supply about a fifth of Sweden's energy needs but certainly nothing like half!

Anyway, good luck to the Swedes in their dismantling of nuclear power stations; let us hope they find a safe method that other countries can adopt.

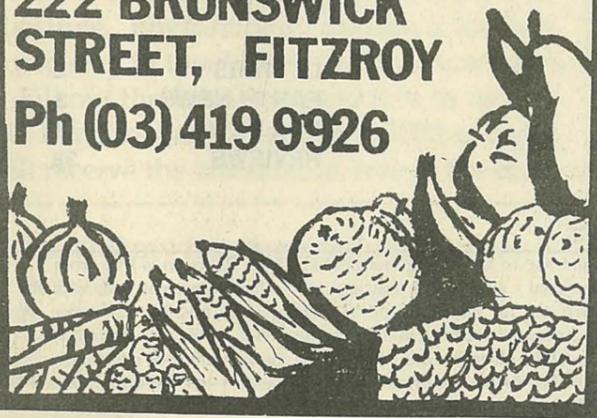
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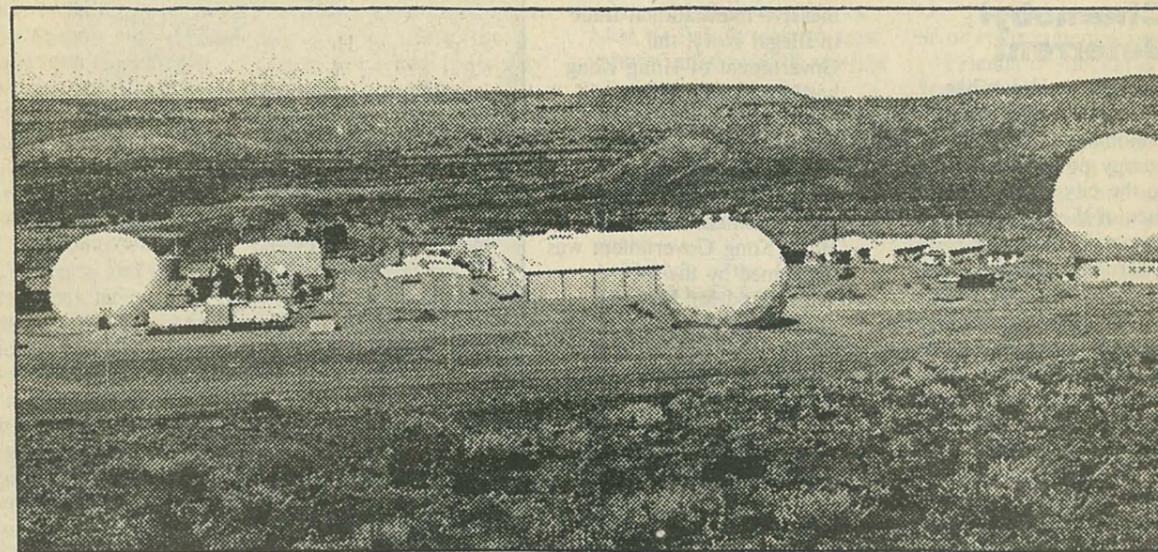
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EARTH NEWS



After a long and bureaucratic process, the Anti-Bases Campaign in South Australia succeeded in obtaining photographs of the Nurungar spy base under the Freedom of Information Act.

The Department of Defence informed ADCSA that the photos were to be released, then only days before the group received them the Department released slightly different photos to the media which were subsequently used on the front pages of most Australian newspapers.

Chain Reaction would like to give credit to the SA Anti-Bases Campaign for their unsung work in revealing the Nurungar base.

SHELL fuels apartheid

Oil has become recognised as one of the key elements in any attempt to pressurise the South African regime through economic sanctions. It is Pretoria's most vulnerable point of dependence on the international economy. Virtually all the major oil exporting countries of the Middle East and Africa have imposed their own embargoes on the sale of oil to South Africa, which means that there is virtually no 'non-embargoed' crude oil available on the world market.

But despite this the Shell

company continues to use devious and often illegal means to supply South Africa. It is probably the largest oil company in the country, involved in all aspects of the oil industry there. It has some 20 per cent of the market in South Africa and appears to be the major supplier of petroleum products to the armed forces and police. These sales to the security forces represent direct support for the military machine that represses the black majority.

Since 1976 the company has been the subject of a consumer boycott campaign in the US, Britain, Scandinavia and several other European countries.

The Australian Anti-Apartheid Movement has also recently taken up the boycott and has organised demonstrations at Shell Service Stations in Australian cities.

Because the strength of the campaign around the world is varied, the results too are diverse. In some areas of the US, for example, it is claimed that it has resulted in a drop in Shell's share of the market of up to 10 per cent. In Norway, Shell sponsorship of a handball event was declined by the organisers.

And in Holland, the University of Delft refused Royal Dutch Shell's chief executive an honorary

doctorate even though he had studied there.

Shell's response to the boycott has been to employ a US lobby group, Pagan International, to determine a strategy to counter it. Pagan have produced a Document of Advice called the 'Network Strategy' which amongst other things counseled Shell to lobby church groups against joining the boycott — an activity which has largely failed.

For more information about the Shell Boycott write to the Australian Anti-Apartheid Movement, GPO Box 1782P, Melbourne 3001
Source: *Community Aid Abroad Review*

Chernobyl deterrent

The Soviet Union has abandoned construction of a major new nuclear heat and energy power station close to the city of Minsk in the face of the public outcry stemming from the Chernobyl disaster.

The first 1,000 MW reactor at the plant was due to come on stream as soon as 1989. Commissioning of a replacement gas fired thermal station will be delayed until 1993.

The decision comes in spite of repeated assurances about the new safety systems at Soviet nuclear plants, tested in September 1988 in a fire at the country's 3,000 MW Ignalina plant in Lithuania where the first post-Chernobyl control system was installed.

The new move was revealed by the government newspaper Izvestia which confirmed it was taken in direct response to public fears voiced since the 1986 Chernobyl disaster. The Republic of Byelorussia, of which Minsk is the capital, was the worst affected by radiation caused by that accident, although it has received less attention than the neighbouring Ukraine.

The Ignalina plant is only half the 6 000 MW size it was originally intended to reach but Soviet officials continue to insist that nuclear power stations are essential to provide adequate energy supplies in areas like the Ukraine and Byelorussia.

Source: *Financial Times* — *International Affairs*

Crack down on ivory

In an effort to stem the massive international trade in illegal ivory, the Government of Hong Kong has announced that it will enforce strict import controls on all carved ivory entering the Territory.

The official announcement, made by the Hong Kong Government was welcomed by the World Wide Fund for Nature (WWF) as an important step in improving the African elephant's chances of survival.

David Melville, Conservation Officer for WWF-Hong Kong, said that the new legislation should plug a loophole in local legislation which has allowed unscrupulous traders to bring illegally poached ivory into the Territory. Under the former legislation, it was forbidden to import raw (uncarved) ivory into Hong Kong. However worked (carved) ivory could be imported without restriction. The new law requires that all worked ivory entering the Territory be accompanied by proper International Trade in Endangered Species of Wild Fauna and Flora (CITES) export permits.



Since the US imports 90 per cent of its worked ivory from Hong Kong traders, the only remedy was for the Hong Kong Government to require CITES permits for imports of worked ivory. In

East Africa, elephant numbers have declined by more than 50 per cent in the past six years entirely due to illegal trade in ivory.

Source: *WWF News*.

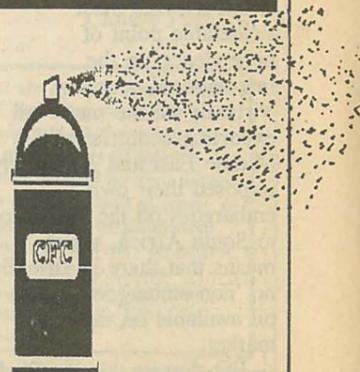
Halt to CFC-113

Global concern about the breakdown of the Earth's atmospheric ozone layer is already having an impact on the electronics industry. When released into the atmosphere, chemicals such as cholofluorocarbon-113 (CFC-113), marketed as Freon by Du Pont, appear to break down the protective, high-altitude

ozone layer.

Consequently, 50 nations signed an agreement in 1987 to cut drastically the production and use of CFC-113. Worldwide, production is supposed to be halved by the end of the century, and some leading manufacturers, such as Du Pont, have announced plans to halt CFC-113 production entirely by that date.

Source: *Global Electronics*



Sunburned skiers

Friends of the Earth in Ottawa, Canada report that members of a Canadian-Soviet polar expedition think that an arctic ozone hole may be responsible for the severe sunburns they received during their trek from Siberia to Ellesmere Island in Canada. A team of four Canadians and nine Soviets skied 1,750 kilometers across the Arctic in order to challenge their ability to endure severe climatic conditions.

The Toronto Globe and Mail reported that the skiers were prepared for the extreme cold, but were surprised by the effects of the sun. 'Several of us had to wear masks towards the end of the expedition to keep our faces from being completely destroyed by the penetrating effects of the sunshine' said Max Buxton, a Canadian member of the team who has lived and worked in the Arctic. A doctor examining the skiers after their trip said that their faces suffered from sun, wind, and frost damage. Harsh sunlight also harmed the eyes of some team members. Skier Christopher Holloway described in a letter to FOE Canada an itchy rash that developed on his face, which became very swollen by the end of the trip. 'I am presuming that the sun problems we experienced were due to the diminished ozone, as the cold and wind have never had this effect on my skin', he said. A thin ozone layer would have let high levels of harmful ultraviolet radiation reach the team.

Holloway's first-hand exposure has made him

concerned about ozone depletion. He has asked FOE to send him information about the issue for inclusion in the team's expedition book and lecture series.

Scientists have found signs that accelerated ozone depletion similar to the Antarctica ozone hole, may be occurring over the Arctic. FOE Washington report that Soviet and American scientists have announced that the two nations will coordinate ten to twenty experimental flights over the Arctic in January and February 1989. The ozone-depleted region is thought to extend to 31 miles.

Source: *Atmosphere* — *FOE International*

A red herring

Roger Caras ABC News did a nine-day day series for 'Good Morning America'. He ended with the comment that this was the biggest story of the century. This raised eyebrows in the news department and they said he was crazy. He said 'You want to take body counts? More children died of diarrhea in the Third World in the last hundred days than all the Americans who died in World War II. In this country we tend to look where the enemy isn't and turn our backs. Our environment is rotting and our people are rotting from drugs. I'm far more concerned about that than about the Russians. If we destroy our infrastructure of soil and water and wood and fish and edible resources, as well as the natural beauty that can restore our souls, then worrying about the Communists is literally a red herring.'

Source: *International Barometer*

Lobsters at risk

It is reported that a highly toxic chemical called Nuvan is being used illegally all over the west coast of Scotland. Nuvan is a organophosphorus pesticide used by fish-farmers to treat salmon infested with sea-lice — a common parasite. Treatment is intensive over the summer months and fish farm workers prepare and apply large quantities of Nuvan as often as every two weeks.

Friends of the Earth Scotland have heard disturbing stories from workers about the lack of information and protective clothing available to the people handling the chemical. Some have been admitted to hospital with symptoms of Nuvan poisoning.

Nuvan is used for the treatment of red mites by the poultry industry and as such is licensed under the food and protection Act. It is easily obtainable for this purpose and, because it is used to treat chicken pens rather than the birds themselves, it is regarded as a pesticide. Fish-farmers apply it directly to salmon. For this use it is classified as a medicine and so requires a Product Licence under the Medicines Act 1968. Ciba-Geigy, the manufacturers of Nuvan, have not yet been issued with a Product Licence so

the use of Nuvan by fish-farmers is illegal.

Given the inadequacy of the toxicity tests, it is probable that Ciba-Geigy will in time be issued with a product licence. The tests taken neglect the effects of low doses on human health or of environmental impacts.

Friends of the Earth Scotland believe that the trend towards heavier and more frequent applications of Nuvan will not solve the sea lice problem but will put fish-farm workers at greater risk and has the potential to destroy the fragile balance of the marine ecosystem. They feel that that fish farming industry should be given two options:

- A ban on the use of Nuvan for fish farms. This would force improvement of husbandry to take account of disease control.
- Restriction of the use of Nuvan to land-based tanks so release to the environment can be delayed until breakdown is complete. All workers must be properly and supplied with full protective clothing. All sites using Nuvan to be registered and regularly inspected. The antidote to be kept locally wherever Nuvan is in use.

Source: *Issues* — *Environmental Bulletin of FOE Scotland*

And more problems

Radioactive waste from the Rocky Flats plant in Denver Colorado was to be sent to a nuclear waste dump in Blackfoot, Idaho but Cecil Andress, Governor of Idaho refused to accept the waste. The waste in a rail car was returned to Rocky Flats. The problem is that the storage site at Rocky Flats will be full within four months and so an alternative site must be found. A proposed site in New Mexico was due to open in October 1988 but won't be open for another few months. There have been reports that this site, an old salt mine, has been leaking water. However the Assistant Secretary of Energy, Anson Franklin, says that the site has undergone a five year demonstration program to prove its suitability.

Meanwhile the waste is sitting in a railway siding. Governor of Colorado, Roy Romer, says that the waste is quite safe stored in the railway car in the short term provided that it is kept out of metropolitan areas. Anson Franklin agrees that this is a reasonable short term arrangement. However, as Roy Romer said 'If we can't store the waste safely, we have to stop producing it'. Unfortunately the American Government sees nuclear weapons as being more important than safety.

Source: NBC News

Heat trap

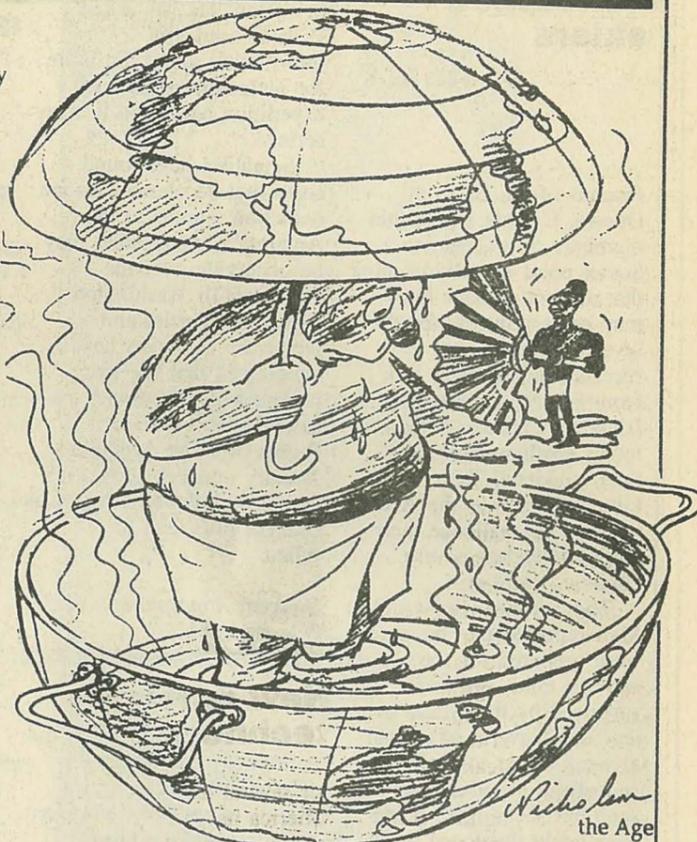
In a statement dramatised by one of the hottest North American summers on record, scientists and policy makers meeting in Toronto Canada make an urgent call for action to prevent further global warming, acid rain and erosion of the earth's protective ozone layer.

The statement produced by more than 300 scientists and policy makers attending a conference on 'the changing atmosphere' sponsored by the Canadian government, reflected strong agreement that human activities such as the burning of fossil fuels, the production of ozone-destroying chlorofluorocarbons (CFCs) and the clearing of tropical forests are badly damaging earth's atmosphere. 'Humanity is conducting an uncontrolled, globally pervasive experiment whose ultimate consequences could be second only to a global nuclear war', the delegates concluded.

In blunt terms, conference delegates — including Friends of the Earth from Argentina, Ghana, the United Kingdom, the US and Canada — called for actions that will slow and reverse damage to the atmosphere: A 20 per cent cut in current global carbon dioxide (CO₂) emissions by the year 2005 and an eventual 50 per cent reduction.

The cuts would be made by reducing the use of fossil fuels such as coal and oil, emphasising energy conservation, and switching to less polluting energy sources.

CO₂, created by the burning of fossil fuels, has been identified as a major cause of global warming



through the 'greenhouse effect.' CO₂ and other gases collect in the atmosphere, where they form a blanket which lets sunlight in but then traps the accumulated heat — much like the glass in a greenhouse. This 'heat trap' is expected to cause major shifts in rainfall patterns, extreme climates, melting of the polar ice caps, and a sea level rise.

Scientists testified before Congress that the heat trap already exists and will effect global climate, making events such as this year's drought increasingly likely. 'Whether or not the drought of 1988 is itself the direct result of greenhouse warming is irrelevant,' Sen. Timothy E. Wirth (D.-Colo.) told the conference. 'It provides us with a very good picture of what the world of the future might look like.'

What's the solution to the greenhouse effect? Nuclear power, says the nuclear industry. Wind energy, say the windmill makers. Methanol, say others, allied with coal and natural gas. Everybody has an answer to global warming. The greenhouse bandwagon is leaving the station and the energy special interests are climbing on board.

Source: *Not Man Apart*

No dumping

Sixty nations meeting at the London Dumping Commission have voted to ban the burning of chemical wastes at sea by 1994. The vote is binding on member nations.

Source: ABC Radio News

Waste embarrassment

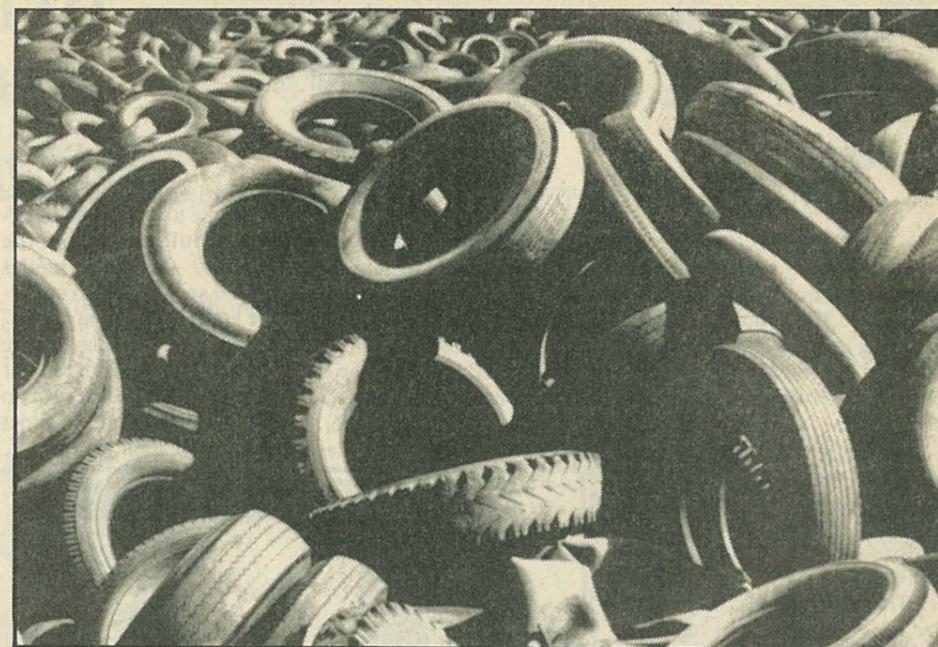
Government officials overseeing a nuclear weapon plant in Ohio have admitted they knew for decades that they were releasing thousands of tonnes of radioactive uranium waste into the environment exposing thousands of workers and residents in the region.

The Government decided not to spend the money to clean up three major sources of contamination, department officials told a House energy and commerce subcommittee hearing. Run-off from the plant carried the dangerous waste into underground water supplies, drinking water wells and the Great Miami River; leaky pits at the plant, storing waste water containing uranium emissions and other radioactive materials, leaked into the water supplies, and the plant emitted vast quantities of radioactive particles into the air.

The 37-year old Fernald plant, near Cincinnati, processes uranium for use in nuclear weapons and in the Energy Department's military reactors. The lawyer representing workers at Fernald in separate litigation, said he was 'stunned' at the Government's disclosure that it told plant officials to ignore hazards.

Representative Thomas Luken, chairman of the House energy and commerce subcommittee on hazardous materials, said the revelations were 'an embarrassment to the country.'

Source: *Financial Review — International Affairs*



New recycling technology

For several decades, America has been struggling with the disposal of old tyres. They now number about two billion and are growing by 240 million a year. Most methods for dealing with the problem have either been too expensive or have run into environmental barriers.

Now, two small companies have devised a new recycling technology that is earning praise from environmentalists and appears to have economic potential as well. Moreover, some State authorities see it as a way to create jobs.

The companies, Rubber Research Elastomers Inc of Minneapolis and R.W. Technology Inc. of Cheshire, Connecticut, combine old rubber from tyres with 'virgin' rubber and plastics. As a result, manufacturers are using the recycled rubber in a host of products, including floor mats, car trims, industrial

washers and gaskets, buckets and garbage bins. Each company claims proprietary aspects to its recycling process, but the underlying principle involves restoring the ability of vulcanised or 'cured' rubber to bond again with other rubber or plastic.

Old tyres represent one of the more intransigent aspects of what the US Environmental Protection Agency described as America's 'staggering' solid waste disposal crisis. 'They're quite indestructible', said Mr. Earl Dahl, a vice-president at the Goodyear Tyre and Rubber Co. 'You may wear them out, but they remain basically intact'.

Left on the ground, old tyres can catch fire and burn for months or become a breeding ground for mosquitoes. When they are buried, they often work their way back to the surface. Most disposal alternatives have met with questionable, if not controversial, results. 'To use the materials as an energy source is both

inefficient and polluting', said the co-director of the US Institute for Local Self-Reliance, Mr. Neil Seldman.

At the heart of the new recycling technology is the 'cross-links' that bind molecules of rubber together. Both companies have developed agents that activate the unused molecular bonds masked by the vulcanising process, thus restoring the ability of the formerly 'dead' rubber to link with other plastics. The two products Tirecycle and Typlax are environmentally acceptable. Only electricity is used in the process for grinding, heating and mixing. Since no water is used and nothing is burned, the process results in no dangerous by-products, both companies said.

'If it works, this approach is going to be the answer to the waste tyre problem in the US', said Mr. Andrew Ronchak, the waste tyre programme supervisor for the Minnesota Waste Management Board.

Source: *Financial Review*

FOE Adelaide University

— James Prest

After a lengthy 'low profile' period Adelaide Uni FOE was galvanised into action over the pressing issue of ozone depletion and the greenhouse effect. In May 1988 we ran a week of action to increase public awareness and bring attention to Democrat Senator John Coulter's Bill to limit the release of ozone destroying chloro-fluoro carbons (CFC's).

The campaign was initiated by the symbolic dumping of fridges, which use CFC as a refrigerant, on the steps of Parliament and demanding action beyond that required by the Montreal Protocol to limit ozone damage. We were surprised to find ourselves talking to journalists from *The Age*, and the *Sydney Sun* as well as four local television stations.

During the week we forced pamphlets onto the shoppers in the centre of town. Reluctant to take them, excuses included 'There's no ozone layer where I live — I'm from the country' and 'It's all in the Bible, Brother — this is Armageddon!'

Then came a large rally on the steps of Parliament with speeches from John Coulter, Democrat MLC Mike Elliot and myself. Stipo Androvic performed a funky rendition of 'Ozone Blues'. Hopefully this will be recorded and released in the near future.

As most will be aware there are many at work making sure that this kind of news never makes the papers. Nevertheless, both events gained coverage on all four television stations. It is also interesting that we had to get all kinds of permission to be active in public.

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You need written permission to have a demo on the steps of Parliament House and if you want to hand out leaflets in Adelaide's biggest shopping area, Rundle Mall, the City Council tries to confine you to a booth ignored by the majority of shoppers.

Three letter writing nights have also been held. These

have been a great tool for getting people to write who otherwise wouldn't. For the uninitiated the form replies received served well to undermine confidence in our political system. The Senators we wrote to never considered our arguments, they just served up computerised platitudes about the depth of their concern.



The Montreal Protocol for the protection of the ozone layer has been signed by the Government. The protocol requires that chloro-fluoro carbon (CFC) use and production in Australia be cut by 50 per cent by the end of the century. However the US Environment Protection Agency has shown that an 85 per cent decrease is needed in order to hold the current rate of ozone depletion constant.

The Government has deliberately and cynically exploited the ignorance of the public by not endorsing measures that go beyond the Protocol. The Protocol, drawn up in September 1987, is a compromise based on what is now outdated information. In March 1988 the expert members of the NASA Ozone Trends Panel presented evidence that the extent of global ozone depletion since 1969 was not 0.5 per cent as assumed for the Protocol but actually between 1.7 and 3.0 per cent.

According to NASA scientists, even if the terms of the Protocol were adhered to, global ozone depletion would still be at least 5 per cent by 2050 and 8 per cent by 2060. The fact is that the amount of ozone destroying CFC's in the stratosphere will still be increasing in 1999 if all we do is adhere to the Protocol. The inadequacy of the Protocol has even been argued by none other than DuPont, the world's largest manufacturer of CFC's.

Chris Puplick, the Shadow Minister for the

Environment (and innumerable other things too), has indicated his support for measures that go beyond the Protocol. This is all very well but it is unlikely that other Liberals will be as 'wet'.

The solution proposed by Democrat John Coulter does not call for the elimination of the refrigerator or air-conditioner. All that is required in these uses is the recycling, not banning, of CFC's. The CFC's contained in refrigeration equipment can be readily recaptured and recycled rather than released into the atmosphere.

Some quarters are suggesting that a solution to ozone depletion lies with substitute CFC's with a low ozone depleting potential such as CFC-22 and DuPont's Fluorocarbon 134a. The problem with this solution is that it ignores the contribution made by CFC's to the Greenhouse Effect. Carbon dioxide is not the only Greenhouse gas. CFC's are among the list of other culprits. Given the growing world-wide consumption of CFC's it has been estimated that the contribution of CFC's to the Greenhouse Effect could well equal or exceed that of carbon dioxide within thirty years.

James Prest is a member of Adelaide University FOE which can be contacted through the Adelaide University Clubs Association. He is studying Politics and Economics at the University.

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NEW SOUTH WALES

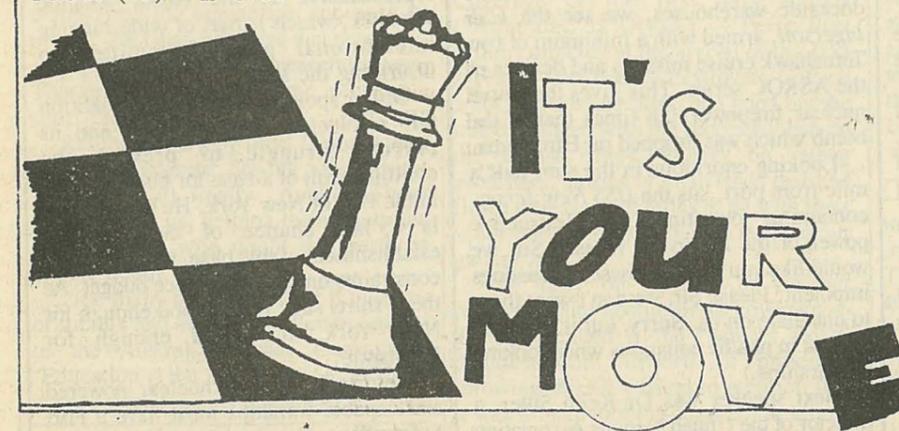
Blue Mountains: 156 Megalong St, Leura 2780
Newtown: PO Box 169 Newtown 2042, Phone (02) 517-2139,
Membership enquiries through FOE Sydney.
Sydney: PO Box 474A Sydney 2001, Phone (02) 211-3953

AUSTRALIAN CAPITAL TERRITORY

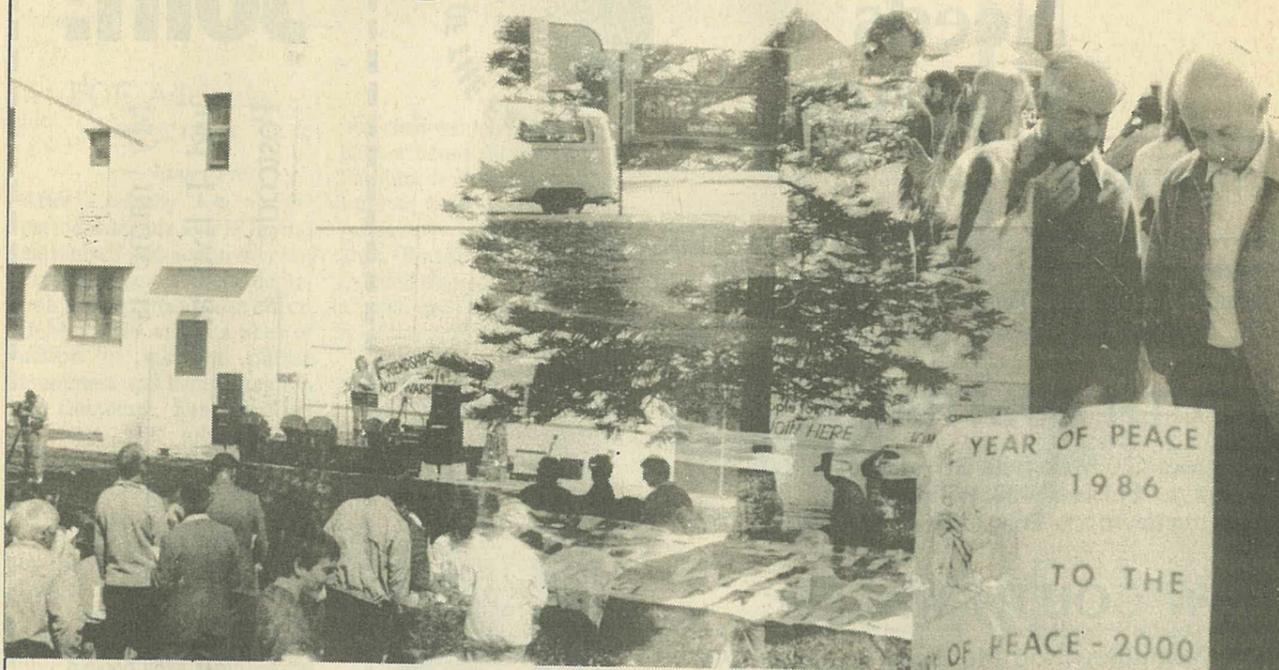
Canberra: PO Box 1875 Canberra 2601.

NATIONAL

Chain Reaction: PO Box 530E, Melbourne 3001,
Phone (03) 419-8700



Goodbye Perth



Fremantle

OK, I thought, lets pretend I'm writing this for *Rolling Stone* magazine, Volume 3, 1968. Act totally incompetent. Helps disguise the fact that one is badly researched and woefully deficient of information on the subject matter.

Still, the role of ace, action, roving reporter from the East Coast isn't a bad way to play the script on this warm, late-winter morning in portside Fremantle. Pioneer Park. Ironbark bush band. Banners framed in green on the grass. Street stalls and information pamphlets galore.

This was the first protest in Fremantle for six months and organisers were hoping for a strong show of support.

As the people rolled into the park I contemplated the most imposing banner. 'ALP Members For Peace and Disarmament', it said boldly. A grain of sand in the ALP oyster shell, I thought, and posed the question to Kath Gallop, spokesperson for the group.

Kath stressed that this group's relations with the ALP body corporate are cordial though she did mention that it took ten months of trying before *Labor Voice* fitted their advertisements into the paper. Naughty, naughty advertising manager.

Still the group believes they can effect change from within the system and the 120 members continue to lobby for the abolition of all things nuclear.

It was a pleasant, sunny 20 degrees as Irena Dunn mounted stage to give her maiden speech as a Senator of the people of Australia. Preamble, overviews, painted scenarios, then to the reason for today's rally, 'The ships of death (that progressively pierce our peaceful harbours'.

Looking to our right over distant dockside warehouses, we see the *USS Ingersoll*, armed with a minimum of two Tomahawk cruise missiles and devices of the ASROC series. This gives the ship a nuclear firepower 128 times that of the bomb which was dropped on Hiroshima.

Looking enormous in the sun, half a mile from port, sits the *USS New Jersey*, containing four times the destructive power of the *Ingersoll*. (Please Sir, we would like you to make these old seadogs impotent. Please Sir, we don't want them to ejaculate on us. Sorry, but it's easy to get lost in phallic equations when looking at warships.)

Next speaker was Dr Keith Suter, a director of the United Nations Association

of Australia and the Trinity Peace Foundation. Dr Suter has just returned from the third United Nations Special Session on Disarmament. The sentiments he brought back were ones of vigorous vigilance. He emphasised that we must not be lulled by increasing superpower usage of the peace language. Disarmament agreements will dismantle 4 per cent of the world's nuclear arsenals. There is a long way to go.

There is no idle chatter as John Miller takes spotlight. What's this, an American! Slight resentment, suspicion, discontent. John Miller is from New York, a representative of the North Atlantic Network, which is part of wide ranging international group committed to disarming the seas.

Miller spoke of New York's Coalition For A Nuclear Free Harbour and its current struggle to prevent the establishment of a base for nuclear ships in the Port of New York. He thinks there is a fair chance of avoiding the establishment of this base, mainly due to constraints on the US defence budget. As the T-shirts say, 'If it is good enough for New York, it's good enough for Fremantle'.

Any dock used by nuclear powered and capable warships must have a Port Safety Plan. Fremantle's plan is a thick

document that dispenses responsibilities and chains of command. Would it work in a crisis? For example, 'Duty Staff Officer, State Emergency Operations Centre, will immediately alert The Leader, Radiation Monitoring Group. Leader, Radiation Monitoring Group, will immediately take action to verify the alarm by . . . It is left to us to trust that the kneebone really is connected to the thigh bone.

A primary concern for peace groups is that Western Australia's Port Safety Plans do not take into account the possibility of a nuclear weapons accident. Emergency services could not contend, information and responsibilities inadequate — goodbye Perth.

The US Navy has been involved in establishing New York's Port Safety Plan. Items from the first draft remind one of those US Defence Force training films of the 1950s; lines like 'a handkerchief over the head gives protection from plutonium' and 'it is totally safe 2000 feet from the accident area'. A second document now exists.

John Miller is sponsored in Australia by five unions — the Seaman's; Metal Workers; Electrical Trades; Construction, Mining and Energy Workers; and the Miscellaneous Workers Union.

Stan Plumridge from WA PND (acronym city) took the microphone briefly to stress again the need for vigilance; and to remind us of the stalls of goodies awaiting sale. On the tables are badges, stickers, posters, buttons, t-shirts and jars of honey. This is a grass roots movement after all.

Final crowd motivator was Jo Vallentine. Typical journalistic ineptitude, I was talking with John Miller at the time and so missed the text of the Senator's speech. My apologies to Jo and reader.

According to my photographer friend, the world's first anti-nuclear Senator emphasised the humanistic approach to protest; the Gandhian ideal that peace can only be achieved through peaceful means. This prudent reminder came in useful a short time later.

Results take a long time. Commitment must be maintained. Staying power. Faith. The wall will finally crumble. These words caress us, helping to shore up the will of those who doubt the worth of people doubt.

'Too many people think of it in terms of success and defeat', says Simon Stevens of the Australian Peace Committee. 'Education is the key. We are an octopus slowly stretching its tentacles'.

— Gary Thomas is a free-lance reporter.

Melbourne

The highlight of a successful week of protests was the early departure of the nuclear certified warships *HMS Ark Royal* and *RFA Fort Grange* after cruising around Port Phillip Bay for two days. A Seaman's Union ban on providing tugs and three days of strong winds made it impossible for the boats to dock.

The blocking of the *Ark Royal* and *Fort Grange* was a major victory for the disarmament movement, following the blocking of Valetta harbour in Malta by unionists there and earlier union actions in Australian ports. On the day that the *Ark Royal* left the bay ABC television reported that the Bicentennial Naval Review had been an 'utter disaster' for the navy, as protests around Australia showed popular opposition to visits by nuclear ships.

The Melbourne protests were initiated by a broad *ad hoc* group, dubbed the Melbourne Anti-Warships Coalition. The early arrival of the US destroyer, *USS Ingersoll*, in Portland (a conservative country town in Victoria) and successful protests there and in Sydney sparked morale and activity.

The coalition included a broad range of groups: delegates from the Combined Unions Committee against Nuclear Warship Visits (which links members of twelve port unions); peace, disarmament and environmental groups (PND, ABC, NFIP, MAUM, FOE and the rest of the alphabet); people from the Turkish and Kurdish communities; the Prostitutes Collective; Doctors Against the Nuclear Threat; the Melbourne Peace Fleet; bayside residents and suburban peace groups — and more!

There was good media coverage leading up to the actions and widespread media interest in the peace fleet. Coverage of the first days actions (Wednesday, 12 October — Peace fleet actions directed at the arrival of the *USS Ingersoll*, the French destroyers *Colbert* and *Commandant Bory*) was good but the mood changed with the successful ban on the British ships, attacks on ratbag protesters, stories of girlfriends that had flown thousands of miles to be with their sailor-boys and talk about the insult to our gallant ally.

The rally on Sunday 16 October received quite hostile press coverage — *The Sun* called it the 'world's worst' demonstration. Reports of protesters throwing missiles failed to mention that it was women lobbing condoms at sailors as they left the wharf area.

The State Government and the Port Authority constructed two tall fences topped with barbed wire at the entrance to the Station and Princess piers. The fence at Station Pier was quickly removed after union protests and much publicity but the one at Princess Pier remained. This is where the *USS Ingersoll* and the French ships were docked.

The fence was self-defeating. On the day the ships arrived protesters placed a bike lock on the only access gate. It took an hour to remove the lock delaying Naval authorities, service crews and the welcoming party. One wonders of the efficiency of port accident emergency plans when the authorities are stumped by a bike lock!

On the ships open day visitors had to queue outside the fence where they were searched by US sailors (bags and coats checked for banners etc) before being allowed, in groups of twenty, on the dock. In spite of these precautions, protesters still got onto the ships with banners and after an hour the visits were stopped.

Following successful union actions in Malta, Port Kembla, Newcastle, Darwin and elsewhere, the Melbourne union bans which kept out the *Ark Royal* and *Fort Grange* have highlighted the role of trade unionists in stopping ship visits. The strong union involvement has been important in placing pressure on the Government and creating public debate.

The opposition immediately attacked the Federal and Victorian Governments for not cracking down on unions and introduced a bill with penalties of \$5,000 or 6 months jail for hindering a visiting warship. The Government has announced plans to purchase more Navy tugs to circumvent future bans.

A meeting of union delegates and shop stewards on 12 October unanimously agreed to seek Trades Hall Council endorsement and mount a campaign to tell the State and Federal Governments that if another nuclear capable warship comes to Melbourne, the whole port would be closed down.

All in all, a good time was had by all — the blockade against the *Ark Royal* raised morale enormously, and we put the issue on the agenda in a very positive way. The conspicuous silence by the supposedly 'nuclear free' Melbourne City council and State Labor Government shows that direct action must be supplemented by further campaigning.

— Report compiled by the Melbourne Anti-Warships coalition.

Sarawak -



the crisis deepens

In *Chain Reaction* 48 (Summer 1986-87) Peter Graf reported on the situation in the Malaysian state of Sarawak on the island of Borneo where timber companies are logging the rainforest. In their newsletter on tropical rainforest — *TRF Times* — Friends of the Earth U.K. report on the continuing crisis.

Reports received from Sarawak state that at least one group of Penan are now facing starvation as a result of uncontrolled commercial logging of their rainforest homelands. The government of Malaysia seems set on allowing the complete destruction of northern Sarawak's native

people and has implemented new repressive legislation prohibiting even legitimate protest.

In spite of this pressure, so great was the threat from the loggers on their homelands and livelihoods, that in May 1988 the Penan were forced to re-impose their blockades. Arrests were threatened by the government, but were not enforced, perhaps due in part to their concern over the telexes received from FOE, Survival International and other non-government organisations. Two of the blockades are still being enforced, one of these being directed against the logging concession part-owned by the Sarawak State Minister of the Environment and Tourism, Datuk Amar James Wong.

Representatives of thirteen Penan communities met in February 1988 and reported on the increased destruction of their forests. 'Since the armed police opened up our blockades, logging has started again. The timber companies log every day, even when it is raining', said Juing Lihan, Chair of the Penan Association.

Consequently, siltation and pollution of rivers — the Penan's only source of drinking water — has increased, causing widespread health problems. Medicines are no longer available from the forests, and the sick are refused assistance by local police or employees of logging companies.

So much damage has now been done to the forest that food is becoming hard to find: 'If we are lucky, we may come upon food after walking and searching for two to three days'. The rapid deterioration of the situation follows last year's (1987) arrest and detention without trial of Horizon Ngau, Director of Sahabat Alam (Friends of the Earth) Malaysia's Sarawak office, and the dismantling by armed police of tribal people's blockades across logging roads leading into their traditional lands. Ngau is now under orders not to leave his home town, Malaysia's thus preventing him from conducting vital field work.

The Penan appealed once again to the Malaysian government for help. The State government responded by amending the Forest Ordinance which now decrees that anyone causing obstruction of logging activities will face a two year prison sentence and a M\$6,000 fine. Any blockades which are erected can be dismantled by logging companies, the cost of which is charged to the tribes.

With Federal and State elections due to occur in early 1990, the rate of logging is liable to increase still further. The last



elections in Sarawak saw the handing out of logging connections as 'inducements' for political support, and, with the fear that the next government may be less sympathetic to logging interests, the timber companies will maximise their profits while they are still able. Malaysian Primary Industries Minister Dr. Lim Keng Yaik has stated that the current rate of logging in Sarawak is about 400,000 hectares per year, roughly double estimates of a few years ago.

The last chance is international pressure. All means of legitimate support have been removed from the Penan and other affected tribes in Sarawak. Anyone in Malaysia who dares support them runs the risk of summary imprisonment or worse. It is only through international pressure that the lives and culture of the Penan, and the rainforest which are their home, can be saved.

Support is urgently needed showing the Malaysian government that the destruction of Sarawak is an intolerable violation of human rights and an act of ecological vandalism of the first order.

Please write to the Malaysian Prime Minister and the Malaysian High Commission urging that:

- There is an immediate suspension of logging in all tribal peoples' homelands in Sarawak.
- An end to the policy of leasing logging concessions on tribal lands.
- The securing of all tribal land rights.
- Compensation for damage already done to traditional territories should be played immediately.
- All restrictions on free speech, movement, and association for Malaysian environmentalists should be lifted immediately.
- Datuk James Wong should be urged to resign from his position of Minister of the Environment immediately.

Reprinted from the *TRF Times*, the *Friends of the Earth UK* newsletter of rainforest issues.

Taking the wrong track



The development of a very fast train (VFT) linking Melbourne, Canberra and Sydney is being touted as a solution to inadequacies in the present system. The proposal by ex-CSIRO head, Dr Paul Wild, is backed by a consortium that includes BHP, Elders IXL, TNT Australia, and the giant Japanese engineering company Kumagai-Gumi. Environment groups, including the Australian Conservation Foundation, the Nature Conservation Council of NSW, the Conservation Council of Victoria and the Wilderness Society, have called for a public inquiry into the proposal which so far has only a single route option.

Such an inquiry into alternative routes and technologies must be undertaken before the VFT Joint Venturer spends a budgeted \$18.9 million on a feasibility study and offers, upon its completion, an enticing but non-negotiable \$6 billion investment. *Paul Dempsey and Peter Harley report.*

The VFT promotional material reveals that the train will be technological marvel, powered by 50 kV overhead lines and cruising at 350 km/h, the fastest in the world. The service aims to attract 3 to 5 million passengers per year. While energy efficiency decreases with speed, fast trains are considerably more efficient than air or road transport. Typically, one fifth the energy for aircraft per passenger and half that for cars. Hence it would benefit business and the environment, and reduce road accidents.

The system will be used for passengers and light freight only, providing tourist and business facilities. Fares, around \$105 for Sydney to Melbourne, will be competitive with airlines but more expensive than the present rail service which it would almost certainly replace.

The proposed route starts at Central Station Sydney and goes underground to a station close to the airport. From there it travels along existing rail and freeway corridors, possibly along the environmentally sensitive Wolli Creek, to Glenfield and then to a station west of Cambelltown. It then heads to Canberra and Cooma providing fast access to the snowfields. The route winds its way south through forest areas of East Gippsland. This section is the most controversial, roughly following the Bonang Highway and the Brodribb River through East Gippsland between Delegate in New South Wales and Orbost in Victoria.

The train would then travel to a station at Dandenong and from there to Melbourne via one of two proposed routes, either along the existing

Dandenong-Melbourne suburban rail reserve or along the Mulgrave Freeway and South Eastern arterial road reserves, terminating at Jolimont. Altogether there are thirteen stops. However most services will run express Sydney, Canberra, Melbourne.

A preliminary study completed by CSIRO in 1986 indicated that the project was economically and technically feasible. A passenger market study confirmed estimates of patronage. People dislike traveling the distance by car and, although there has been a rapid increase in interstate bus trips, are dissatisfied with the frequency and duration of the twelve hour journey. There is also interest in a cheaper alternative to air travel. The projected 1995 demand is in excess of sixty trains daily. Each train would carry up to 400 passengers.

A feasibility study with a budget of \$18.9 million was begun in August 1988. If all goes to plan it will take two years to complete. An environmental effects study will then be prepared for public comment. The partners will then seek government approval and legislative assistance to begin construction, sometime in 1990. Operation would begin in 1995.

The Impact 1: The Environment

While significant environmental impacts are expected along the entire route, the major concern is the section through East Gippsland. Although the track alignment is not yet finalised, the favoured route

passes near the newly proclaimed Errinundra and Snowy River National Parks as well as other areas on the Register of National Estate. The Brodribb River valley, itself the subject of special management recommendations by Victoria's Land Conservation Council, would be severely disturbed, including the destruction of rare areas of warm temperate rainforest and riparian vegetation.

Dr Wild has been evasive about noise levels. Expectation is that the noise may be like a jet aircraft at close range and significant five kilometres away. It would be intolerable to live by. The quiet of the surrounding wilderness would be destroyed. The effect on stock and wildlife is unknown.

The entire line would need to be fenced to prevent intrusion. Wide buffer zones would be required to provide maintenance access and reduce fire hazards. Wildlife migration would be reduced to tunnels built under the line. The speed of the train requires that curves have a minimum radius of seven kilometres. This will require massive earthworks in the rugged terrain leading to erosion and siltation of streams. The earthworks themselves, and the buffer

zones required, will also enable weeds to invade the region probably requiring the use of herbicides to control them. Overall, the passage through these celebrated forests will mean cutting a large, ugly swathe.

The Impact 2: The Community

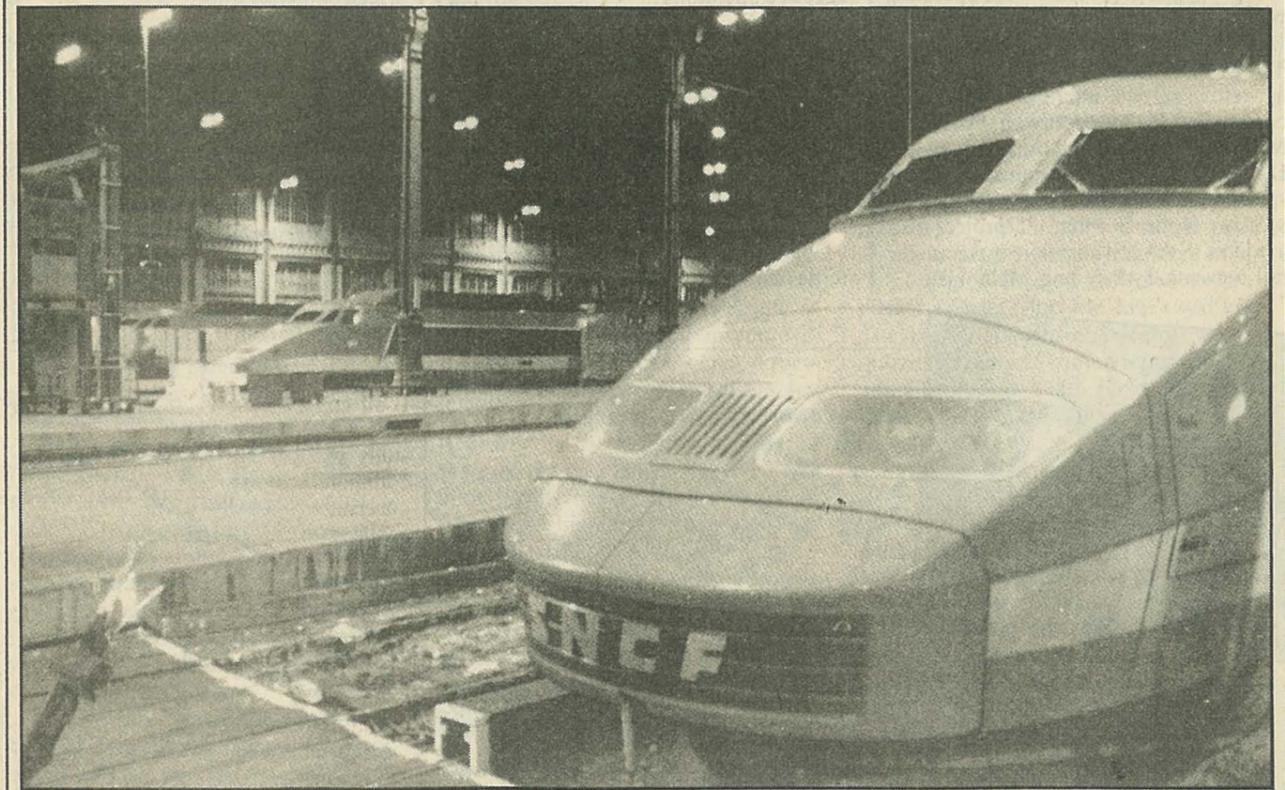
For landholders close to the corridor the noise and fence may create problems. Financial compensation will not satisfy many. It is speculated that rich commuter suburbs, for those who could afford the \$70 daily fare, may develop up to 300 kilometres, or 1 hour, from the capitals. Land values in these areas would rise. Some local businesses would be stimulated although speed of access would also shift some local services to the capitals. Tourist centres will boom, encouraging investment in these areas. The attractions of the areas may be overburdened by the high level of access. The planning implications are vast and certainly require careful community consideration and consultation.

The consortium suggests that 25,000 jobs would be created during construction. However a paper prepared

by the Society for Social Responsibility in Engineering (SSRE), *High Speed Railways for Australia*, the most detailed critique so far, says:

Major construction projects with a tight construction timetable invariably lead to 'over-heating' the demand for skilled labour, materials and equipment. Rapid cost escalation can result from high wage demands through skill shortages resulting in increased imports to meet a short term need. The VFT project would be in competition with other (smaller) projects for skilled workers, materials and equipment. The shorter the project, the greater such pressures will be. A balance needs to be achieved so that local economies can avoid significant distortion in the short-term.

In the long term it is claimed the VFT will directly create around 1300 jobs. However, jobs will most certainly be lost in other areas. As interstate passage services on the existing rail corridor are expected to close, Victorian and New South Wales railways could be cut back by several hundred jobs. Reduction in airline, coach and trucking operations could more than offset the number of jobs



The VFT would travel at speeds nearly 100 km/hr faster than the French TGV high speed train pictured above.

directly created by the VFT. Economic activity, including travel and tourism in towns on the Hume and adjacent rail corridor, would decline. Long-term employment generation cannot be considered as a major benefit of the VFT.

Economic Issues

Writing in *The Australian* engineering consultant Owen Magee questions the economics of the proposal. He suggests that the 1986 figure of \$4 billion could well balloon to \$12 billion if recent major projects such as the Sydney mono-rail are taken as a guide. The possibility of governments being drawn in to contribute to the eventual cost is very real.

The partners are yet to demonstrate the viability of the project without government support. A range of tax and stamp duty exemptions may be applied. Low electricity charges may be offered (remember Portland). Costs associated with relocating powerlines, roads and other public utilities could be met from the public purse. It is certain that supportive legislation will be required to acquire the necessary land along the route.

The interests of the Australian partners are quite apparent. Apart from operating profits, BHP stands to make huge profits from the sale of 217,000 tonnes of steel. TNT, with interests in Ansett and Pioneer as well as its own interests, will further consolidate its monopoly in Sydney to Melbourne road and rail transport. Elders IXL will no doubt realise profits in land speculation along the route. Of concern to many is the fact that the project also amounts to the privatisation of passenger rail between Sydney and Melbourne.

The Alternatives

Many agree on the need to improve the service between Sydney, Canberra and Melbourne. Air and road travel are inefficient users of energy. The existing thirteen hour rail trip is poorly patronised. Overseas, high speed railways have been introduced between cities 3-400 km apart and often closer. At 350 km/hr the VFT would be nearly 100 km/hr faster than the French TGV, the world's fastest rail service at 260 km/hr. The question is do we need to leap to a 350km/hr, three hour rail journey on an entirely different route at massive cost?

Although increased energy efficiency is given as one of the main benefits of the VFT, two points should be considered. Energy consumption increases with speed so better efficiency could be achieved at 260 km/hr, the TGV speed. The consortium would argue that at this speed the four and a half hour journey would not be such an attractive alternative to air and road and so net energy would not be saved. The second point is that the VFT at 350 km/hr depends on a significant increase in passenger transport (induced travel) thus increasing energy usage.

A number of alternatives have been suggested including:

- Finding a less environmentally sensitive route.
 - Upgrading the existing rail line and technology and improving access to Canberra. Such improvements could give a journey of eight hours or less.
 - Extending the NSW XPT service into Victoria.
- Coalitions of concerned environmentalists have been formed in

Melbourne and Sydney. Many other organisations, including rail unions, have expressed interest and attempts are being made to draw the groups together.

Environment groups in Sydney, Melbourne and Canberra have called for a public inquiry into the proposal prior to the preparation of an Environmental Effects Statement (EES). The groups are concerned that if the project proceeds through the feasibility study and design stages without community input, until the EES stage there will only be a single option on which only a yes or no decision can be made. The Governments would be under considerable political pressure to approve the project given the \$4 billion political and economic carrot.

If you are concerned and would like to assist in the VFT campaign contact:

- VFT Working Group
Environment Centre
247 Flinders Lane
Melbourne 3001
Phone (03) 654 4833
- Total Environment Centre
3rd Floor, 18 Argyle St
The Rocks
Sydney 2000
- Canberra and South East Region
Environment Centre
GPO Box 1875
Canberra City 2601

Paul Dempsey is a resident of Goongerah, a community with fledgling enterprises in woodcrafts, nurseries, soft-educational tourism and organic vegetable growing, in the Brodribb Valley. The community would be made unviable by the VFT. Peter Harley is the Vice President of the Conservation Council of Victoria.

Reuse it - don't refuse it

Recycling will play an important part in progress towards a sustainable system of using our resources. It allows us to take advantage of the substantial amounts of energy, water and raw materials embodied in used materials.

Recycling is only one strategy for using our resources more sensibly, and on its own does not provide an answer. It is the option to be taken up after

the options of conservation and reuse have been considered. Changes to consumption habits are vital if we are to use resources in a more sustainable fashion.

We have an economic and political system that relies on increasing consumption for growth and expansion. The greenhouse effect, depletion of the ozone layer, acid rain and other air pollution are warnings that we are overloading the planet's

ability to cope with the consumption habits of the developed world.

Australia does not have a good recycling record with relatively small recycling rates for many materials, and only one State having anything like a comprehensive system of beverage container recycling. The articles on these pages look at some specific situations and our options for bringing about change.

Paper Recycling

Every day hundreds of tonnes of paper are discarded around Australia, yet it is one of the easier materials to be recycled. *David Vincent* looks at the situation and suggest we should adopt different policies.

In the debate over the South-west Tasmanian forests, insufficient attention has been given to paper recycling as a means of taking pressure from our forests. At the same time as rural forests are cleared an urban forest goes to waste. Paper recycling should be adopted as part of a strategy to use of forests on a sustainable basis along with measures such as establishment of plantations, reduction of consumption, increased forest royalty rates, changes in the way forests are allocated and revision of forestry practices.

Australians annually consume around 2.4 million tonnes of paper or about 149 kg per person. About 30 per cent of this was recycled in 1983¹

mostly in cardboard production. By comparison, Japan recycled 48 per cent of its consumption and Thailand and Czechoslovakia recycled 47 per cent². By 1984 Japan's recycling rate had increased to 50.5 per cent³.

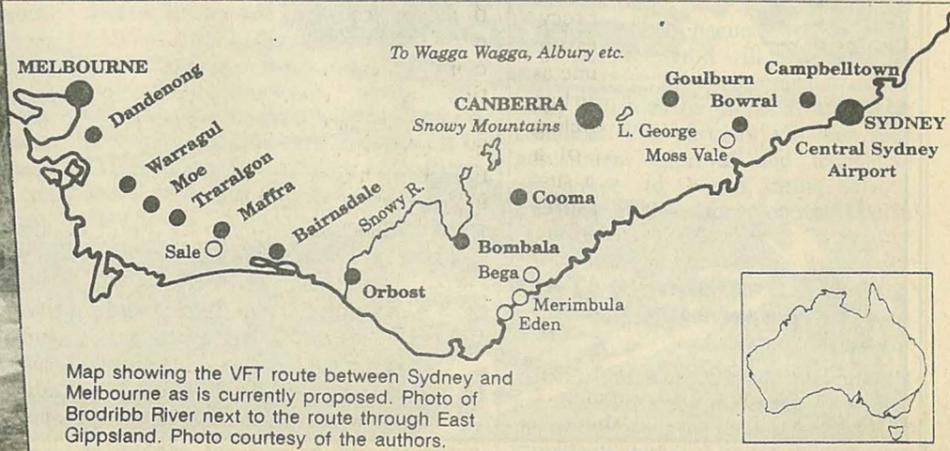
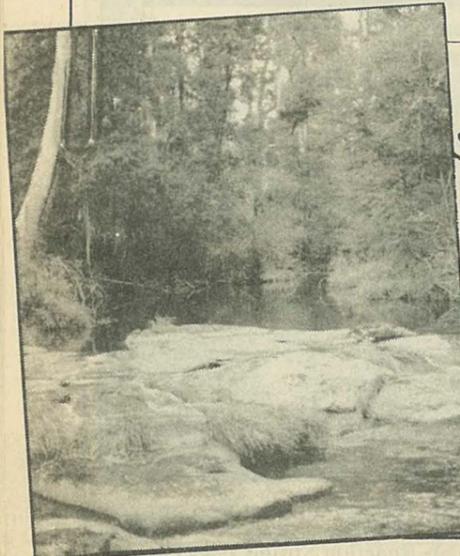
The United States is the world's largest consumer of paper at 267 kg per head and recycles less than Australia, so is not a good example of consumption and recycling levels. It does provide some good and innovative examples of how to increase recycling rates as waste disposal has become an enormous problem particularly in the densely populated areas of the east coast. Recycling has been adopted as a partial solution although the high level of consumption is also part of the problem.

The 1985 average cost of solid waste disposal in urban Australia was estimated at \$50-62 per tonne⁴. Based on 1984/85 consumption figures and assuming paper recycling rates are around 30 per cent, disposal of paper not recycled cost \$84-\$104 million. If we were to recycle at the same rate as Japan we could save \$25-35 million in

waste disposal costs alone. This figure may be conservative as the same report estimated that waste disposal costs could be as high as \$75 per tonne.

There are many barriers to increased paper recycling in Australia primary of which is the structure and location of the paper industry, with most plants located in rural areas. Other barriers include low royalties for trees, transport subsidies for paper, producer preference for virgin fibre, inadequate collection systems and low tariff barriers for imported paper.

In general, paper mills are located close to their source material. Cardboard producers form the only sector of the industry using significant amounts of waste paper, approximately 550 000 tonnes in 1983/84⁵. They are located in cities where most waste paper is generated and transport costs are minimised for this bulky and relatively low value-added product. The other sectors of the paper industry: printing and writing papers; newsprint; and tissues;



Map showing the VFT route between Sydney and Melbourne as is currently proposed. Photo of Brodribb River next to the route through East Gippsland. Photo courtesy of the authors.

are generally located in rural areas close to cheaply available publicly-owned forest. The APPM plant at Shoalhaven on the south coast of NSW, which uses high quality printer's offcuts for up to 25 per cent of its source material is the only plant outside the packaging sector to use waste paper. However, no use is made of post-consumer waste paper, much of which goes to waste.

The rural location of non-cardboard paper mills mitigates against the use of waste paper, as transport costs are high and no subsidies seem to be forthcoming for transportation of waste paper. Australian Newsprint Mills have indicated⁶ that the additional cost of using pulp made from recycled paper, compared with virgin pulp, is more than \$200 per tonne. There is a proposal for a new pulp mill at Wesley Vale in Tasmania and the Minister for Industry, Technology and Commerce, Senator John Button indicated in August that the Federal Government, at the behest of the backers of the mill, North Broken Hill and Noranda Forest of Canada will provide incentives for its development. So it seems another mill is to be near the forests while hundreds of thousands of tonnes of paper goes to waste in urban areas. These location decisions are extremely important because Australia is a relatively small market and modern pulp and paper mills are large with the consequence that new capacity is added infrequently. A decision to locate another plant in rural areas will probably preclude the establishment of pulp and paper capacity in urban areas to exploit the urban forests. In addition, provision of new capacity for pulping virgin fibre could discourage the use of waste paper as the producers have

shown a preference for virgin fibre. The existing shortage of extra capacity for virgin pulp has favoured the use of waste paper.

Collections of paper at the household level continue to rely on demand from one source; the packaging sector. While this situation prevails then collections at this level will continue to fluctuate. The reason for this is largely that household collections produce the least desirable material for the packaging sector because it is not uniform and is made of seventy per cent newspapers which is the lowest quality of paper and presents some difficulties in cardboard production because necessarily cardboard must be very strong. Consequently, household collections are expanded when the industry needs extra fibre but it is the first fibre source to be abandoned when demand for packaging declines or economic recession appears. The obvious solution is to locate newsprint mills with de-inking capacity in urban areas where they can take advantage of the high levels of newsprint in household waste paper. It has been estimated that two-thirds of household newspapers go uncollected in New South Wales⁸. There is also potential for some import replacement as 257 000 tonnes of newsprint (41 per cent of consumption) was imported in 1985/86. Introduction of import tariffs for newsprint, which is presently tariff free, could assist in providing the preconditions for the establishment of a newsprint mill using recycled newspapers. A recent report by the NSW Recycling Committee found that a feasibility study appeared to be warranted into the establishment of a newsprint mill using recycled feedstock on the basis of the benefits from import substitution and creation of an outlet for waste newspaper.

The other grade of paper which is being under collected is quality printing and writing paper. It has been estimated that 77 per cent of office waste is easily recyclable⁹. It is particularly important that high grades of paper such as office paper are collected as a high level of inputs are consumed in their production and recycling can take advantage of the inputs embodied in the waste paper.

One effective way of changing the focus of the paper industry is by increasing the demand for recycled materials and goods produced with recycled inputs. Activities such as this fall into the category of market development, the aim of which is to find a productive use for recycled materials, and would include measures such as: the provision of assistance and tax incentives for using recycled materials, packaging laws that require the use of recycled and renewable materials (no plastics), low interest loans for research and development into uses of and technology for using recycled materials, sales tax exemptions or concessions and adoption of paper procurement policies by governments. In Australia creation of new markets is a priority if we are to increase paper recycling levels. This would require use of recycled paper in significant quantities by the quality paper, tissue paper and newsprint sectors of the paper industry, particularly use of post consumer waste paper which is currently underutilised. Even without these practices, the experience of the Sydney based Ecopaper Collective, which is importing 100 per cent recycled paper from West Germany, has shown that strong and increasing demand exists for recycled paper.

In the United States the orientation of action to increase recycling rates has moved towards a 'markets first, collections second' approach which aims at increasing the demand for products containing recycled inputs, thereby increasing the collections and demand for recycled materials. This approach has been successfully used in the United States where some governments have adopted measures such as paper procurement programs under which the public sector is required to buy paper with a specified

minimum recycled content. This provides an assured market for producers of paper with a recycled content. By 1987 17 states in the US had adopted paper procurement policies. The State of Maryland introduced paper procurement legislation in 1977 and by 1983 it had exceeded its legislated purchasing targets, with 50 per cent of its office paper and 100 per cent of its tissue purchases containing recycled inputs¹⁰. Legislation was also instituted

at the Federal level during the Carter administration. However, the necessary guidelines for the legislation were not issued because government interference in the free market did not accord with the Reagan government's emphasis on minimising government regulation of industry.

A recent government report on paper recycling in Australia¹¹ considered the option of paper procurement policies but found that such

policies had not been effective in the United States and could only add a small amount to paper recycling levels in Australia. However it failed to consider the lack of commitment of the Federal Government in the United States and the success of policies at the State level. It also ignored the fact that such policies are important at a symbolic level and that they are an opportunity for the government to provide an example for the rest of the community while also providing an important and assured market for recycled paper.

Market development is important because it is a mechanism that increases collections through demand pull but on its own is not enough to increase recycling. There is also a need for attention at the level of collections so that recycling is maximised. In the US State of New Jersey a serious shortage of landfill space has led the government to adopt comprehensive legislation that addresses recycling at different levels, targeting both collections and market development¹². Some interesting features of this legislation include a solid waste disposal surcharge (or levy) which not only acts as a disincentive for disposal of solid waste to landfill but also is a funding source for community recycling schemes, market studies, education activities, low interest loans to recycling operators and administration of the Recycling Act.

In Australia similar legislation should be considered as the paper industry is not acting in the interest of the public or the environment. Assessments of the viability of recycled paper have largely been confined narrowly to the costs involved in production, without considering the wider social and environmental costs. If the use of forest resources is to be reshaped on a sustainable basis governments must take a much more interventionist approach. Some options which should be considered include:

- umbrella federal government recycling legislation along the lines of the resource Conservation and Recovery act (RCRA) introduced in the United States in 1976.
- formulation of a paper industry plan that restructures

REASONS FOR RECYCLING

THE GREENHOUSE EFFECT

If strategies are to be adopted to prevent the global warming associated with the greenhouse effect, then a number of changes will need to be made to our use of resources and our lifestyles. Paper recycling can directly reduce the Greenhouse effect by reducing demands on forests it helps to maintain forest cover, protecting the arboreal lung which converts carbon dioxide into oxygen and secondly by drastically reducing fossil fuel combustion thereby reducing emissions of carbon dioxide. The Worldwatch 1987 State of the World report stated that paper recycling can save between 23 and 74 per cent of energy use.

ENERGY

Despite the oil shocks of the 1970s that stimulated thinking about alternatives to present energy use we are still living on our energy capital accumulated over millions of years, rather than moving towards the more sustainable option of living off our energy income. Apart from social and environmental costs involved in fossil fuel use such as acid rain and lead poisoning, their finite nature means that energy prices must rise eventually and that the current ridiculously low prices must end.

Paper recycling provides significant energy savings and should be maximised to save energy before the inevitable rise in energy prices makes this a must.

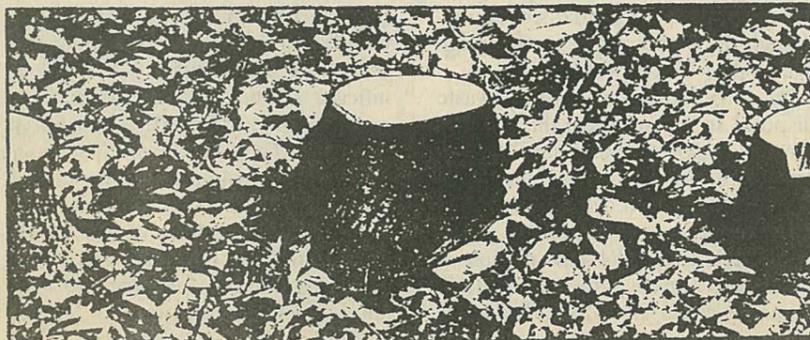
GARBAGE DISPOSAL COST

It costs a lot to dispose of garbage, especially where available land is limited and garbage must travel increasing distances. In the US 703 kg of garbage is generated per person. Of this, 86 per cent goes into landfills and one study indicated that all but four states are running out of suitable disposal sites. Already annual collection and dumping costs per household in some US cities have risen from \$70 to \$420 in only one year (Sydney Morning Herald September 1988).

In some cases it can be worthwhile, without accounting for the wider social and environmental costs of not recycling, to subsidise recycling as this is cheaper than disposal in landfill.

FORESTS AND OTHER RESOURCES

Recycling puts the resource embodied in waste materials to work. Waste paper contains large amounts of fibre, water and energy and higher quality paper contains more of these inputs.



IF YOU GO DOWN TO THE WOODS TODAY...
100 million trees a year end up as waste paper.

and relocates parts of the paper industry to urban areas where most waste paper is generated. Such a plan would need to provide for retraining of employees displaced by relocation. A precedent for this approach has been the car plan which has restructured the Australian car industry.

- targeting areas of paper recycling that need priority for attention, for example, office paper collections and household newspaper collections, and consideration of methods of removing existing barriers to recycling.
- adoption of paper procurement policies so as to provide an assured market for recycled materials.

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Problems With Litter

It is claimed that recycling in New South Wales is amongst the best in the world but Joe Wachter writes that the reality is environmental window dressing, the main manifestation being the 'Do the Right Thing' campaign.

In the late 1970s the Minister for Planning and Environment visited Oregon, the first state in the US to introduce Beverage Container Legislation (Deposit Legislation), and returned favouring this system of deposits on drink containers. South Australia also had similar legislation. In response, industry offered \$1.9 million to fund an anti-litter campaign to be paid by the Litter Research Association (LRA) an organisation of companies associated with the beverage industry which would be affected by deposit legislation.

The Government accepted the money and launched the Litter Reduction Campaign (LRC), better known as the 'Do the Right Thing Campaign', administered by the State Pollution Control Commission but totally funded by the Litter Research Association for the past decade. It has been an extremely successful public relations exercise.

However the environmental effects of the Campaign are illusory and its failings obvious. Claims that litter has been reduced by 70 per cent are based on litter counts, by item, around litter bins so a bus ticket is equivalent to a drink container. The claimed reduction is based on a composite figure hiding the fact that litter counts changed little at bins in National Parks and along roadways.

More significantly, the 'Do the Right Thing Campaign' helped stifle discussion of alternative strategies and re-inforced the throwaway ethic by its 'out of sight, out of mind' approach. About three million drink containers are thrown away daily in NSW. The debate has focused on litter rather than issues such as packaging, energy, resource conservation and employment.

Industry has had a free rein with packaging and the only refillable drink containers in NSW are milk bottles, which are being phased out, home delivered soft drinks and large beer bottles. The latter are now sent to Victoria for refilling because the bottle washing facility was closed due to the poor return rate of 50 per cent. This is indicative of low level of glass recycling in NSW -- 17 per cent.

Industry trumpets the success of the 'cash a can' aluminum can recycling scheme because they claim it has achieved a 60 per cent return rate and provides funds for community groups who voluntarily run the collection depots. This is the main source of recycled cans because most bottle merchants do not collect them because of the can's low value compared with glass and PET plastic bottles.

The recycle rate appears laudable but not compared with the scheme in South Australia, where a deposit on drink cans enables a 95 per cent return rate. The deposit includes a handling fee so that collection centres operate as small businesses providing full and part time employment.

PET plastic soft drink bottles have a handling fee and so are collected in household bottle collections and 'bottle banks' resulting in about 10 per cent being recovered. Previously the recovered bottles were just stored by the bottle manufacturers to maintain PET's image of recyclability. Recovered PET is now processed at a pilot plant and used as an ingredient in paint.

This operation's feasibility is questionable because the small quantities of PET collected and processed give poor economics of scale with which to compete with imported new PET. In the US nearly all PET recycled comes from States with deposits guaranteeing a large regular supply.

Significant barriers to improving recycling exist. The Government organisations promoting recycling are the Metropolitan Waste Disposal Authority (MWDA) and the State Pollution Control Commission (SPCC) rather than the energy and resource departments. This places



emphasis on recycling as waste reduction rather than its more positive role in resource conservation. With this approach recycling is less likely to conflict with departments and vested interests involved with the exploitation of resources.

The MWDA is responsible for garbage tips in the Sydney region. This allows local Councils to escape some of the responsibility for garbage disposal. There is less incentive for Councils to reduce waste if they do not have to worry about a disposal site and increased collection and disposal costs can be hidden in rates. Some Councils require that recycling schemes pay for themselves yet no similar demand is made of garbage collection services.

The MWDA on the one hand encourages recycling but also supports the use of Big Bins. This system now serving 43 per cent of NSW households gives the impression that it is acceptable to throw out twice as much garbage. The MWDA points out that big bins have enabled backyard burning to be banned, reduced small vehicle trips to tips and do not reduce recycling if introduced with recycling promotional material.

The stated benefits could be achieved by recycling and big bins are a disincentive to recycling at a time when it should be increased. Paper manufacturers and the packaging industry do not want recycling and are happy with cheap native forests as shown by the following extract from *Packaging Today*

'... what may appear to be potentially achievable recycling rates can in fact be illusory ... and that increasing recycling beyond the present

levels could well prove to be fruitless exercise of recycling for recycling's sake, regardless of the economics'. (Packaging Council of Australia Inc. July 1987)

Despite the gloom there are some positive things happening. The Litter Reduction Campaign is promoting recycling to a greater degree in its advertising. Some local councils such as North Sydney are improving recycling rates by introducing regular multi-material household collections. North Sydney also removed litter bins resulting in less litter.

The NSW Recycling Committee with representatives from government, industry and recyclers has released its first report 'NSW Recycling Status and Opportunities'. The report focuses on improving household collections, recommending increased recycling education, more frequent and regular collections and the provision of recycling containers to households. They are studying the establishment of a de-inking plant and are producing guidelines for office paper recycling schemes in government departments.

The report shows we throw away 432 000 tonnes (excluding organic material) of recoverable material every year valued at \$36 million dollars. The MWDA produced a similar report in 1975 and little overall improvement in recycling followed. Hopefully people are now more serious about recycling.

Joe Wachter is a member of Friends of the Earth Sydney.

Deposits

Recycling in Victoria has been the focus of campaigns and government discussions for some years and there is a long way to go. Fran MacDonald reports.

Recycling is an appropriate component of both industrial and municipal waste management. But the principles of recycling cannot be applied to industrial waste, mainly because of the hazardous nature of chemical waste, so the Friends of the Earth Recycling Campaign has concentrated on municipal waste generally, and specifically on the issue of recycling beverage containers.

Recycling or reuse of one type of product encourages recycling generally. Beverage container recycling involves not only the community but also State and local governments and the packaging industry and solutions to the problems of waste bottles, cans and cartons can be initiated by the government and the packaging industry and go towards reducing waste generally. One of the most constructive solutions is a compulsory deposit system -- the payment of deposits which are refunded when the empty containers are returned. It is a system to which industry is vigorously opposed.

Most importantly, the Recycling Campaign operates on the premise that the best way to cope with waste is to reduce it at its source. For this reason, we advocate recycling non-hazardous and bio-degradable waste and essential packaging such as glass, as a way of minimising its production, as well as its quantities in landfill. We discourage excess packaging and oppose the use of plastics, especially PVC and other toxic substances. Only where waste reduction at its source is not yet possible do we propose recycling as a means of dealing with waste.

In 1982, the Natural Resources and Environment Committee (NREC) established an inquiry into deposit legislation and recycling mainly as a result of pressure by community groups. The NREC Inquiry heard submissions from environment and consumer groups, local government,

the packaging industry, retailers and others. It examined the beverage container deposit system already established and working well in South Australia.

The evidence showed that recycling rates in Victoria should be improved and that a deposit system would effectively do this. However the Inquiry's 1984 report did not recommend the immediate introduction of a deposit system.

Instead, a 'majority' of three of the six members accepted industry submissions that a deposit system would not improve recycling rates without industry suffering unfairly and that a voluntary system would work just as well. However there were recommendations acted upon by the government:

- The setting up of a five year scheme financed, after due haggling, by industry, to try to improve recycling rates voluntarily. This scheme commenced January 1986.
- The overseeing of the scheme by the Recycling and Litter Advisory Committee (RALAC), comprising ten so-called representatives from government, industry, unions, local government and community groups. The 'Litter' part of the scheme accommodated the demands of the Keep Australia Beautiful Council headed by Dame Phyllis Frost, who then took one of the two community group places on RALAC. (However, Dame Phyllis is not in favour of deposits or other measures suggested by the environment movement, and can hardly be said to be representative.)

RALAC's role is to advise and report to the Minister for Planning and Environment. It works closely with the EPA's Recycling Unit to actually implement its ideas. One of its main terms of reference is to set recycling targets for industry with a view to improving rates. The NREC recommended that RALAC annually set recycling targets and report to the Minister.

NREC also recommended that, if the five year plan did not achieve a significant improvement in recycling,

a deposit system be introduced immediately; containers should then only be exempted if they are returned at a rate of 80 per cent, being phased in at 60 per cent and increasing by 5 per cent each year.

FOE champions a deposit system similar to those in operation in South Australia and overseas, especially in certain US states.

'Recycling in Bondage' (Chain Reaction 49, Autumn 1987) reported that Bond Corporation was challenging the South Australian legislation in the High Court, seeking abolition of the Beverage Containers Act on the grounds that it contravened the constitutional right of free trade between states. Bond argued that as a national producer its ability to trade in South Australia was hindered by the specific requirements of the system. Defeat of the SA legislation would make similar legislation in other states less likely to be introduced unless it could be shown to be constitutional.

Draft Victorian deposit legislation based on the South Australian model has attempted to eliminate its inherent problems. For instance, the definition of the type of beverage container covered by the legislation is broader and the return route is via special depots and marine stores rather than retailers, who see themselves inconvenienced in the South Australian system. It is also comprehensive, not exempting milk containers which is the case in South Australia. The problems caused by Section 92 of the Constitution, which guarantees free trade between states, have also been considered. According to one interpretation, legislation in one state may be invalid in that imposing special regulations (deposits) within a state would restrict free trade between that state and the others.

It remains to be seen whether or not the Victorian legislation will be non-discriminatory on this basis. However, the problem may be solved by the landmark case, known as *Cole v Whitfield*, handed down by the High Court this year, where the Court unanimously decided that State legislation that restricted intrastate trade as much as interstate trade does not violate the constitutional guarantee.

As deposit legislation applies as much to containers made within a state as to those made outside, it would fall within this new interpretation. This would be good news for the South Australian legislation and probably means that the Victorian legislation would be free from legal challenge.

A deposit system dramatically increases recycling rates wherever it has been introduced. Potentially all refundable containers will be returned, except the tiny percentage actually lost altogether. The EPA figures for South Australia show that in 1985-6 that aluminum cans were returned at a rate of 93 per cent (by weight); 84 per cent of glass and 85 per cent of the plastic PET bottles were also returned. In deposit-free Victoria in the same year, only 41 per cent of aluminum and 62.5 per cent of glass were returned, while PET was hardly returned at all.

The savings in energy and primary resources are enormous. A recycled aluminum can saves 95 per cent of the electricity used to make one from raw materials, and a refillable bottle system uses just 30 per cent of the energy required for an equivalent one-way bottle system. Recycling also reduces pollution from mining operations, tree felling and refineries. Deposits reduce litter because containers are collected for their deposit value.

The economic benefits of deposits are considerable. Hundreds of new jobs have been created in South Australia in transport, washing and storage. There are also savings for local councils in transport, storage and tip space.

Very importantly, an extensive deposit system encourages people to recycle and conserve generally. In places where it has been introduced, recycling rates for paper, rags, oil, scrap metal and other materials have also increased. The deposit system makes educating people about recycling easier. It's convenient, self-explanatory and easy to operate.

Opponents of the system point to retailers' problems with storage and administration when containers are returned. However, the Victorian system would use bottle merchants and specific depots.

The system is desirable for the environment, consumers and the

economy, yet industry does not want it. Glass manufacturers are worried that a reduction in use of one-way bottles would reduce profit, although the system would guarantee jobs in the industry and the future of glass bottles. The aluminum people say the cost outweighs the benefit, although they haven't come up with figures. Comalco representatives admitted that the cost to them would be less than the amount of money they already spend trying to get people to return cans.

Key to industry opposition lies in the role of the plastics and paperboard industries. The use of plastics and paperboard is increasing in beverage containers and all packaging. It's much harder to recycle or reuse these materials and there are grave doubts about the desirability of the use of plastics in general, due to the waste generated from their manufacture. Accordingly, deposit legislation advocated by the environment movement would include bans or, at least, restrictions on the use of these materials. In any event, great effort would be needed to bring their negligible recycling rates to an acceptable level.

Because the plastics industry really controls glass manufacturing, glass manufacturers' opposition to legislation on deposits can be seen as that of the plastics manufacturers. The paperboard industry, through RALAC, has also shown it is not interested in recycling.

The aluminum industry does at least recognise the benefits of recycling and puts relatively more effort into it than the others. However, Comalco representatives have said they are worried that a deposit system will require the same changes and expenses from them as from the plastics and paperboard industries and they therefore feel it would be discriminatory.

A final factor is that a deposit system involves fairly heavy government intervention, and while the overall level of government control is a relevant question, deposit legislation ensures that government and industry, as well as the community, carry a share of the burden of waste. It alleviates an important environmental problem and should therefore



be seen in the same light as all pollution control legislation.

The Victorian situation in early 1988 did not look good. Industry, union and local government representatives on RALAC and Dame Phyllis Frost were showing little interest in improving recycling rates and the two State government members and the representative from ACF were in a minority trying to initiate real action. Halfway through RALAC's five year term, the Committee had produced only one report to the Minister and no recycling targets had been set for an industry which had indicated it would find only low, voluntary targets acceptable. During April RALAC was hearing submissions about targets, but only from industry; environment groups involved in the NREC Inquiry from the start were not invited.

In April, Carlton United Breweries (CUB) announced it would stop using refillable stubbies in July. The stubby, the most popular beer bottle, was to have the same fate as the glass milk bottle and it was obvious that, if this happened, all refillable beer bottles would eventually be phased out. Industry was rushing, unchecked, away from recycling and the few

people campaigning for recycling seemed to be crying in the wilderness.

Some hope emerged. The situation in local government is slowly improving. RALAC, through the EPA's Recycling Unit and with industry support, established a 'bag grant' scheme whereby all councils were invited to commence house-to-house collections of recyclables using bags provided by ACI and CUB. The Recycling Unit undertakes publicity once a council has accepted the invitation. The number of councils having collection services is increasing although many have not responded to the Recycling Unit's offer.

On the debit side, some councils have also been threatening to withdraw their minimal subsidies from contracted private collectors in their areas which is putting collection services at risk.

However, the Municipal Association of Victoria is now taking more action on recycling and recently wrote to the Minister expressing concern about lack of progress on RALAC. The Association also co-sponsored 'Domestic Waste Recycling: Your Manual for Action' to encourage and assist municipalities. The EPA's Recycling Unit con-

ducted a recycling trial in Geelong, although the trial did not produce much useful data for councils.

The draft deposit legislation is in the last stage before bill form. People in the Ministry are in favour of it even though it has not actually been brought before Parliament. (The Minister has said to us on two occasions that, if we could get a letter signed by the Opposition Leader saying the Opposition would not block deposit legislation, it would be introduced as soon as we liked.)

One of the most constructive developments is the creation of the Recycling Unit at the EPA. Apart from the 'bag grant' scheme, it has been conducting an education program through schools and has produced advertisements and educational videos and other materials. The Recycling Unit has also been responsible for ideas such as a compulsory waste licence fee for industry, where industries would have a licence to dump a certain amount of waste and would pay penalties for waste dumped over their limit. The system would be easy to control as amounts of waste could be checked at the end of the waste stream.

There have been other developments. In politics, the Liberal, Labor and Democrat Parties produced policies on the environment and conservation which included the promotion and encouragement of recycling. Parliamentarians on both sides have been amenable to arguments that recycling should be improved con-

siderably, although none have been willing to completely accept arguments for deposits.

The government is beginning to deal more strongly with RALAC. It has decided to reconstitute the Committee and include an extra environmental representative. The Minister criticised CUB for its move to stop using refillable stubbies and asked the company to come up with some hard data on glass recycling. RALAC has finally set targets for recycling and will table its second report in the next session of Parliament. The targets are still low and inadequate -- 60 per cent for glass and aluminum and nil for plastics and paperboard -- but are higher than the majority on RALAC originally asked, and the environment representative has finally had his hard-line minority report accepted by the rest of the Committee.

Local government is showing more interest in recycling. The State Government's environment budget this year included \$210 000 for two new council trials. The Melbourne City Council has also indicated it intends to initiate a comprehensive recycling scheme based on some in the US. If this can be achieved, it will encourage other councils as the cost savings and employment opportunities become obvious.

In industry, the demand for waste paper has increased dramatically, and the price paid has almost trebled, to create a firm market for recyclable paper. Several companies, such as the Pratt Group, have recently expanded their recycling operations to include

more paper and plastic from industrial and domestic waste sources.

In education, the Gould League released its primary level activities book 'Extension Activity Book -- Recycling'; the EPA and the Victorian Association for Environmental Education published 'Waste-wise', an educational program for secondary students on recycling, packaging and litter; and after protracted debate the Victorian Curriculum and Assessment Board retained an environmental education subject at year 11/12, in which recycling is expected to play a significant role.

The prospects for recycling in Victoria are getting better, but there needs to be more community, council, government and industry involvement for recycling rates to achieve acceptable levels and for the burden of waste to be reduced significantly. People need to be aware of excess packaging and the dangers of hazardous waste and make a concerted effort, as consumers, not to encourage their use. All local government should have schemes for the collection of recyclables. The State government should introduce a comprehensive program to ensure industry contributes adequately to recycling and that scheme should include deposit legislation. Industry must realise that if it does not put waste reduction into practice, we will all pay heavily in the future.

Fran Macdonald is FOE Fitzroy Recycling Campaign Co-ordinator.



UNION CARBIDE

EVEREADY

BOYCOTT
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Kerala Sastra Sahitya Parishad

Sushasini Muly is an independent Indian film director and part of the team that went to Bhopal and documented the events of the year following the world's worst industrial accident at Union Carbide's pesticide plant on 3 December, 1984. The film *Bhopal: Beyond Genocide* highlights the hazardous nature of chemical plants, the power of multinational corporations and the economic relationship between the developed and less developed world that ensures the continued production and 'need' for the chemicals they produce.

Sushasini was in Australia in September for screenings of the film when she spoke with *Chain Reaction*.

I think the first and biggest lesson that anyone can learn from Bhopal is that it is essential to have freedom of access to the necessary information. If people live in areas where there are chemical plants they have to have some idea of the nature of the chemicals being produced, so if there is an accident they know what to do. In Bhopal if people had known not to run, that they should cover their faces and remain as still as possible things wouldn't have been so bad as they are now. The multinationals are loathe to give this information. In the United States where people are living at the gates of the Carbide factory in west Virginia, they too lack this knowledge. The same thing happened in Seveso.

The second lesson to be learned is that the effects of chemical toxins cannot be treated as we treat conventional diseases. Regular medicines have failed to cure people in Bhopal, if there is any antidote it has to be a chemical antidote as you are dealing with a chemical reaction. So people have to have some medical knowledge of how chemicals can affect them. In Bhopal it is one of the major fights that we have had; the general reluctance to accept that there is no cure. Hopefully as people begin to learn this is so then their concern will increase and self education will follow.

The third lesson to be learned from Bhopal is a political lesson and that is the

realisation that the multinationals owe allegiance to only one thing and that is profit, whether the country is a first, second or third world country. The maximisation of profits is the way that they operate and if that means moving the production of chemicals to another country because of increasingly stringent standards or illegally maximising profits, they will do so.

Two weeks after the Bhopal disaster, somebody did a study of accidents that took place in the United States during that same week. There were three major accidents. The organisation for health and safety responded that this was a pretty standard week.

The chemical industry largely reneges on its responsibility for disposing of hazardous waste. Yet the first world countries are encouraged to develop a complacent attitude about the waste on the basis that companies would not put at risk communities they themselves originate from and live in. And the myth that Bhopal could happen in India, but not in the developed world is prevalent. However it can happen and does happen. Maybe 2,500 people don't get killed, but there is always the potential for a similar disaster. Nobody knows what is really there in the chemical industry's Pandora's Box except themselves and they are not going to talk.

The relationship between multinationals, the production of and use of pesticides and chemical fertilisers and the developed and less developed countries is complex and needs some historical background.

Early in the 1950s a scientist called Dr Norman Bolog developed a hybrid seed variety called the Mexican Dwarf. This seed was expected to produce 6.5 times the yield of the normal variety and it was seen as the answer to world starvation. The use of the seed was widely adopted, which meant fundamental changes in countries that began to practise the style of farming advocated by this 'Green Revolution' particularly in India where it differed greatly from the farming practices traditionally used.

Hybrid seeds were developed in laboratories and were extremely prone to insect and pest attacks. They had absolutely no resistance therefore pesticide products were used. Further to that, the second problem associated with the use of the Mexican Dwarf seed was that the higher yield sucked out the soil's nutrients at a very fast rate and those nutrients went purely towards producing the higher yield, so the hay that was left

behind and used for animal feed or mulch had no goodness at all.

In addition to the pesticides and chemical fertilisers, biological support in the form of compost was still necessary to prevent the soil degrading. Farmers who were already spending four times as much on fertiliser did not know the value of continuing to compost and thought it to be unnecessary and so ceased this practice. The constant cycle of drawing more and more out of the soil means chemical residues are left in the ground and the process known as desertification is occurring. In the past when hay or organic matter was left behind it was ploughed back into the soil and formed a protective layer.

There are instances all over the world, including Australia, of desertification of the land. Consequently, large tracts of land are slowly becoming non-productive and the dust that is being lifted from the ground contains all the chemical residues that initially caused the soil's degradation.

The third change initiated by the introduction of the Mexican Dwarf was with regard to irrigation practices. The seed needed irrigation at specific times which meant the introduction of artificial irrigation. This required either pumps (tube wells) or dams and in a country like India which is agriculturally very poor and has a government reluctant to supply such resources, farmers who had money dug tube wells and those who didn't relied on irrigation provided by dams. The social consequences of building dams included displacement because forests which are economically and environmentally important were cut down and people had to move.

In India or any other third world country, land is divided into very small acreage (sixty per cent of farmers own land less than two acres) The introduction of the Green Revolution resulted in increased expenditure and subsequent debt for farmers who could ill afford it. Firstly the hybrid seed could not be reused as seeds in the past had been so new ones were brought, but it needed costly pesticides, chemical fertilisers and artificial irrigation. As was predicted yields increased dramatically which caused a glut in the market forcing small farmers to sell at low rates as they couldn't afford to hold out. The rich farmers who could afford to wait for market prices to rise, bought the grain from the poorer smaller farmers, held out and waited for the price to rise. Therefore those whom the Green Revolution was intended to benefit ended in greater debt and role

changes occurred. The small independent farmer becomes a farm labourer producing goods the rich farmer will make a profit on.

The political and social divides that exist within countries further extend to those who produce and those who are employed to administer the chemicals. Employees are rarely told what is being sprayed or advised to wear protective clothing; this is not just in India. This is in all the first world countries which employ cheap labour. So in the US, for example, it is the Mexicans who don't know what they are spraying and how the effects of it can be combated. There have been deaths in Mexico from pesticides being sprayed from planes directly on to the people who are marking the areas to be sprayed. Workers often live on the field near their work place, so the rivers in the area will carry a mixture of fertilisers and pesticides and be what they use for drinking, washing, cooking because they have no choice.

In order to avoid making changes imposed by legislation passed in the aftermath of Bhopal, companies have made adaptations in the production, distribution and usage of toxic chemicals. For example, in the US the use but not the production of certain agricultural chemicals was banned, so they were exported largely to third world countries. Two years later when in the US they discovered they were eating produce that had been sprayed with the banned chemical, the US stopped importing goods from that country. As the acceptability and subsequent use of that particular chemical decreased, so the pesticide market fell in America. In response to that the company moved the whole factory out of the US to another country from which they were not importing plants and food. The problem was solved for the US and the multinationals, but unless there is some kind of restriction placed on countries to prevent export of toxic pesticides, change will not occur.

So in India the green revolution has been a non-starter but subsequent farming experiments are proving to be more successful. In the valley of Kashmir they are using a biologically, not chemically, produced hybrid, that has been used by the Chinese. It involves selecting the best seeds produced from the last harvest which is a more natural process and has been yielding very high results. Furthermore it does not harm the soil so much, does not require pesticides as it is pest resistant and Kashmir farmers are

now able to export rice despite it being a largely mountainous area. Again in Bihar which is plagued by drought, the reintroduction of the practice of putting green mulch on the harvested soil has meant that the land yields a good crop from which seeds can be used for the following year without the use and necessity for chemicals.

Politically the enactment of the 'Land Seeding Act' by an uncorrupt official in Bihar (the act is designed to stop anyone having more than a certain sum acreage of land) has helped divert people's attention back to the political issues raised by the Green Revolution and 'jingoism of the new technology', i.e. land rights.

In conclusion, if anybody feels strongly about the Bhopal disaster (and I think they should), I would suggest that rather than feeling sympathy, fight a multinational. I'm often reluctant to show the Bhopal film outside India because of the complacent attitudes one encounters or a misreading of the situation. Attitudes include thinking Bhopal was an instance of what Indians do to each other! Or, if this has happened why isn't something being done about it?

Boycott campaigns can highlight issues and increase awareness. Even if they are not 100 per cent successful, effort has been made and if people learn to start examining products and identify them with multinationals, in terms of education what you have managed to do is incredible. The developed world has been brought up to enjoy comforts provided by multinationals like Union Carbide. If people there want to positively change things, it means changing their lifestyle to one that is alternative to the all-consuming one the developed world has now. And there is a very hard and tough fight which demands a long educational process. In addition do something about the hundreds of potential Bhopals that are here in Australia. I think it will be more than enough if you fight the chemical industry and sell alternative ideas here.

Footnote: Union Carbide produce the 'Eveready' range of batteries. FOE has a list of the company names it trades under and the goods they produce. For further information contact Clare Henderson, Hazardous Chemicals Co-ordinator, Friends of the Earth, 222 Brunswick St, Fitzroy, 3065, telephone (03) 419 8700.



The price of progress



Minimata victims going to an international conference to seek recognition of their plight.

At present one can find articles on Japan in most newspapers and magazines almost everyday. These articles concentrate on the 'success' of Japan's economic growth. Japanese economic power is portrayed as growing 'miraculously' and Japan has even been tipped to become a world power. Much media attention is paid to Japan's economic success and industrialism.

Masayo Shima is Japanese and concerned about this distorted and biased view of Japan's growth. For there is very little information available on the negative aspects of this growth. Hence the bias gives the

impression that Japan's economic growth benefits all its citizens. But as the negative effects of rapid industrialisation become obvious there are many people in Japan who don't regard this economic growth as such a 'success'.

The first noticeable effect of Japan's economic growth is the ecological destruction it has caused, directly or indirectly. In the early 1970's, Japan became infamous for its pollution.

Secondly, this economic growth is internationally imperialistic. This is evidenced by the exploitation by Japanese multinationals, especially in South-East Asia. For example, only 13 per cent of the profits of the banana plantations in the Philippines remain in the Philippines. The rest is taken by the Japanese.

Thirdly people find the advanced economic conditions to be socially isolating. Because of the extreme competitiveness in Japan, even teenagers commit suicide if they believe they have failed. Moreover people often have no other choice than to become workaholics, if they are not to be seen as failures. A symptom of this is the stress related stomach ulcers common amongst business men.

Minimata

The growth of the Japanese economy after the Second World War is quite surprising; but so is the growth of pollution.

Destruction by pollution is a most critical factor of industrialisation as once an ecosystem is destroyed it can hardly be restored. One of the most unfortunate examples of the effects of pollution is the case of Minamata disease. It is said that the case of Minamata is the classic example of the effects of an industrial society where economic growth is a priority.

'Minimata disease', as it is known, is a form of mercury poisoning. The people of Minimata became paralysed and died as a result of eating fish caught in water polluted by waste fluid containing organic mercury from a nitrogen factory.

The firm in question, Japan Nitrogen Fertilizer Inc., was established in Minimata City on Kyushu Island in 1909. Minimata used to be an isolated, but rich, fishing town. The construction of the factory changed the fate of the town completely. During the two world wars the company prospered as a munitions factory. However at the end of World War Two the factory was destroyed in an air raid.

After the war the factory was rebuilt as an acetylene synthesising plant. Acetylene synthesised products such as synthetic fibre, vinyl and plastics, are symbols of a high standard of living and a consumer lifestyle. A catalyst in the production of acetylene is mercury. At Minimata, mercury waste was dumped in nearby Shiranui Bay. Hence the poisoned fish. Thus, by association, Minimata disease is an effect of our lifestyle in a highly industrialised society.

Between 1932 and 1968 the factory discharged liquid waste containing mercury into Shiranui Bay. The total amount of mercury discharged is impossible to ascertain but it was enough to kill 730 people and disable another 15,000 according to official figures. But the exact number of victims is impossible to determine. Many people are hesitant

to join the protest because of the severe social stigma attached to the disease. If they protest it will be known that a member of their family has the disease and this could ruin their prospects in marriage, gaining employment, promotion and so on.

In the 1970's there were many heated discussions on pollution and Minimata disease became known to the world. In the 1980's however people are beginning to forget about Minimata. They think the case has ended with the government compensation that was paid to the victims.

The amount of compensation, which was only granted after persistent petitioning, was usually small considering the preciousness of human life. In addition the reaction of the company is quite insincere. For example they tried to refute the cause of the disease by hiring biased researchers to prove the company's innocence.

Furthermore, the company has been trying to delay the designation of people as victims with red tape. Sometimes it takes more than ten years to be designated a victim. People have died before being so designated. As of 1983, only 2,609 people (including 688 dead) were considered victims whereas 14,103 were petitioning.

The money, however, cannot restore the dead, the deformed, or the destroyed ecosystem. Thus the case of Minimata has not ended.

Neither has the direction of a society that has put priority on economic growth changed. Quite to the contrary, the Japanese economy is becoming more aggressive. The case of Minimata was just the tip of the iceberg. There are so many other cases of air, soil and water pollution, and food contamination. I am suffering from asthma caused by air pollution from the Kawasaki Steel Ltd. plant in Chiba City where I live.

Instead of changing the pattern of ecological destruction caused by industrialism, Japan tries to avoid social conflict by transferring the factories to the Third World. But many people in Japan are now realising that the industrialisation of society will not necessarily make people happy. People now realise the preciousness of the things which are lost through industrialisation; a natural environment, the conviviality of human relations, and so on.

Ecologically minded people in Japan have come to the conclusion that damaging the environment for the sake of economic growth will cause inequality

between the generations. As future generations will have no choice other than to accept the damaged world, more and more people are searching for the image of a post-industrial society.

Minimata is the centre of one of the community movements which are attempting to create a resurgence of ecological values. Many of those who suffer from the disease have turned to organic agriculture as a reaction against modern science and technology. They are trying to revive the traditional Japanese agricultural methods which were abandoned in the face of industrialisation. These earlier technologies were fostered by the wisdom of experienced people, and are ecologically harmonious. They have decided not to be assailants of their co-humans and the ecosystem as they would be if they produced agricultural products using chemicals.

They are trying to revive the conviviality which has been neglected by modern rationalism. In their community the handicapped coexist side by side with the able-bodied people. The emphasis is on the congruity of people with nature, not on making profits.

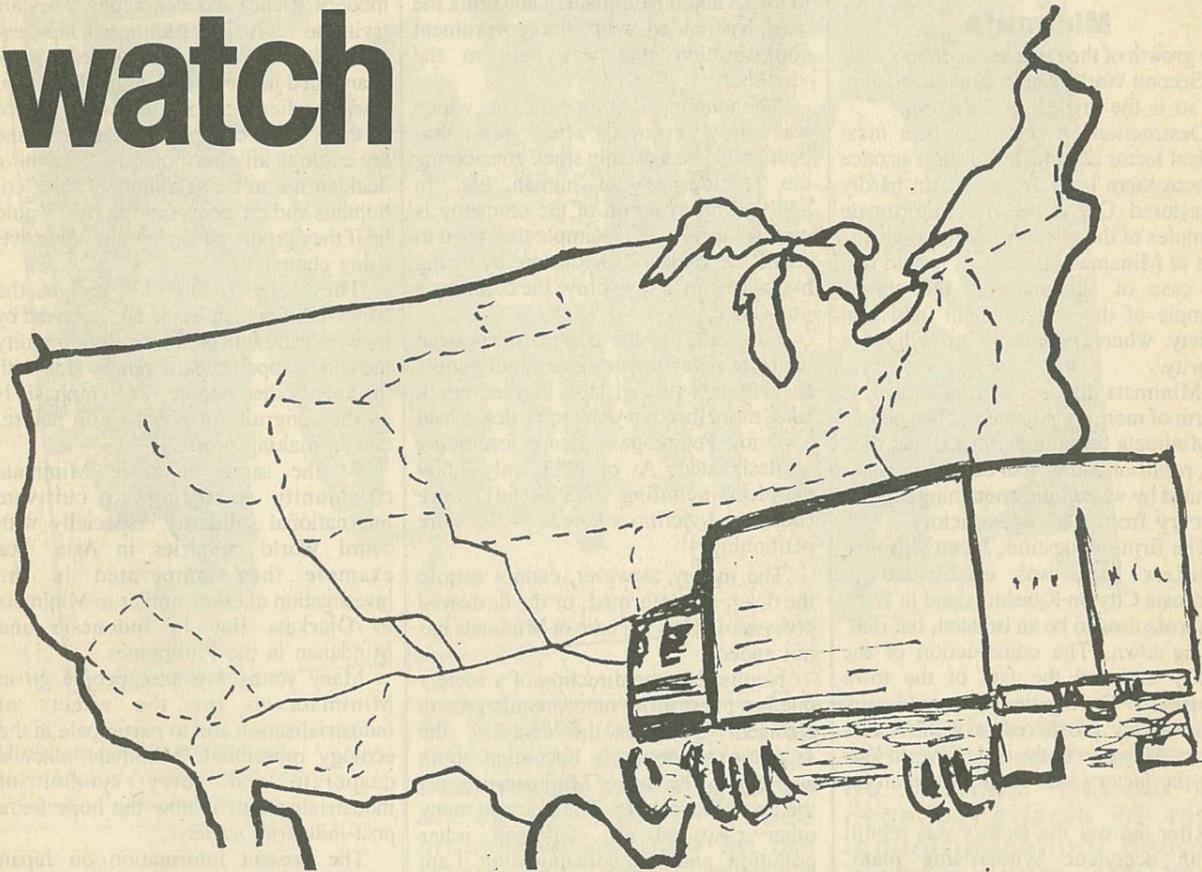
At the same time the Minimata community is trying to cultivate international solidarity, especially with Third World countries in Asia. For example they cooperated in the investigation of cases similar to Minimata in Djarkata Bay in Indonesia and Mindanao in the Philippines.

Many young Japanese people go to Minimata to see the effects of industrialisation and to participate in the ecology movement. Minimata, once a desperate and sorry symbol of industrialisation, is now the hope for a post-industrial society.

The present information on Japan available to Australians speaks only of the 'successful side' of economic growth and industrialisation. But it is not all positive. There are many negative aspects of the Japanese 'success' story. More and more people are critical of industrialisation as the case of Minimata shows. And these people are beginning to construct an ecologically minded post-industrial society. So the next time you hear of the wonders of Japan, maybe you should stop and think about some of the other effects.

Masayo Shima is a Japanese student at Monash University, Melbourne, where she is studying for her M.A. in Geography. She has been active in the environment movement in Japan for about six years.

H-bomb truck watch



Interstate 40 runs the breadth of the United States, from California to the East Coast. It is the main artery of nuclear weapons transport in the US. Nathaniel Batchelor coordinates an amateur intelligence operation — the H-Bomb Truckwatches — in an effort to make communities realise that their roads and truck stops are part of the bomb production cycle. He reports from Oklahoma City.

The United States Department of Energy (DOE) has a fleet of 44 unmarked trucks, 18-wheelers. They're high-security mobile vaults that carry nuclear weapons — up to eleven per week — and parts of nuclear arms all over the United States, to and from the factories which produce them. They converge at the Pantex plant in Amarillo, Texas, the final assembly point. From there they are trucked to missile silo fields, naval stations, and weapons depots. This traffic has been on the highways for 40 years though very few seem aware of it.

The convoys log about four million miles a year, passing through 48 states. They stop regularly at restaurants, gas stations and truck stops along the way. Thousands of people have unknowingly

sipped coffee a few yards from an H-bomb.

All states have public health offices that are supposed to monitor radioactive cargo and toxic waste on the state's highways. They are not notified when the DOE trucks are in transit. Many made strenuous efforts to get that information. But the prerogatives of national security are such that transport of nuclear weapons supercedes regulation by the states.

The trucks are unmarked, to attract as little attention as possible. The DOE says this is for national security. Of course, it is also an easy way to conceal one of the most common and tangible manifestations of the nuclear arms race. Soviet surveillance satellites probably have no trouble identifying these convoys. The

absence of markings is mainly to hide them from the public.

In August 1984, Sam Day, director of the national office of NukeWatch in Madison, Wisconsin, went to the annual Pantex Peace Camp, which convenes outside the gate of the plant around the time of the Hiroshima and Nagasaki Memorials. Sam was aware of nuclear weapons transportation and had some pictures of the trucks. After the encampment ended, he invited some of the other participants to stay on at Pantex and watch the gates for departing convoys. When the spotters saw a convoy leave, they telephoned us and we followed it through Oklahoma City. Another convoy was followed up to Denver, Colorado. This was the beginning of the semi-annual H-Bomb Truckwatch.

Every autumn and spring since, for a week at a time, volunteers go to nuclear bomb facilities around the country. They stake out the gates 24 hours a day. When a convoy leaves a phone call is made to the Benedictine Peace House in Oklahoma City.

From this national hotline centre contacts in communities along the roads ahead of the trucks are notified that a convoy is on the way. If we get a report of a convoy heading west from Amarillo, then we immediately call people in Albuquerque to let them know that it will probably reach their community in six or seven hours.

We also alert other communities further ahead to let them know that a convoy might be coming their way. If a spotter sees a convoy head into new territory we try to have a vehicle stay with it until it reaches its destination. There are now some 200 contacts in 35 states who participate in the Truckwatches.

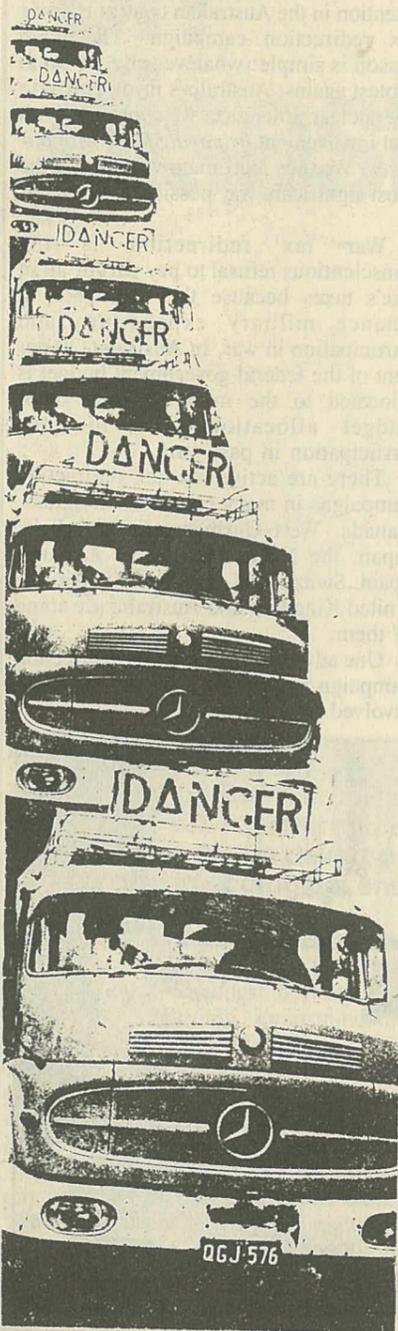
We have followed trucks from coast to coast. We have tracked as many as 17 convoys in one week, from different facilities around the country. Each time we have a sighting, we stick a pin in our national map. Each time we follow a convoy, we draw a line.

Thanks to a group of activists willing to get up at 3 a.m. and follow a truck for a hundred miles, or camp outside the gates of Rocky Flats and eat cold pizza for a week, we've been able to amass hundreds of photographs and hours of videotapes of the trucks and their guard cars passing through various communities.

While Truckwatch weeks are nationally coordinated, local groups are responsible for planning and carrying out their own activities. They set up roadside vigils or demonstrations, or follow the

trucks. The press is invited to participate on the basis that they do not announce the event before it happens. We don't want hundreds of people to show up and create an unpredictable situation. The trucks are heavily armed.

So long as we do not threaten or physically impede the movement of a convoy, our activities have been looked on as legal. We've always contacted the DOE to announce the dates of the Truckwatches and advise them of our



plans. They seem to want to know as much about us as possible. They especially want to know what we intend to do when we're following the trucks. We've met DOE representatives on a number of occasions and even shared our contacts names and addresses with them.

DOE acknowledges that we have the right to drive on highways near their trucks, as well as the Constitutional right to express our concern about the arms race, but they try very hard to discourage us. When we first began tracking them they would often take evasive action, such as suddenly exiting the highway. They have sent out decoys and convoys that split, heading in different directions. One time a truck and a guard car boxed me in while the other vehicles sped off. When the rest of the convoy was far enough ahead, the vehicles alongside and in front of me turned back to the plant.

We estimate that on average two or three convoys pass through Oklahoma each week. However, because of Truckwatch demonstrations in four Oklahoma cities in 1985, no convoys have crossed through Oklahoma during the last three Truckwatches. Instead, trucks from Pantex skirted south. Nationally, during the May 1987 Truckwatch we found only seven nuclear weapons convoys during that week, many fewer than in previous years. We're convinced that the DOE reduced the number of convoys during that particular week.

The H-Bomb Truckwatch's purpose is to call attention to the continuing arms race as a reality in daily life. The arms race seems very remote and abstract to most people. The passage of the trucks, and pictures of them in a local community inevitably leads to questions like: How often do they come through here? What are they carrying? Is the flow increasing? Learning of the passage of the trucks is startling and disconcerting news for most people.

As disturbing as it might be, it is important for people to know that as they eat lunch at McDonald's, three of the trucks parked outside may be loaded with thermonuclear weapons. When the arms race is that close, you can't ignore your responsibility. The H-bombs you paid for are being delivered. Would you like to change your order?

Nathaniel Batchelor is a Vietnam veteran and a full time staff member of the Benedictine Peace House in Oklahoma City, Oklahoma. The H-Bomb Truckwatches are sponsored by NukeWatch and the National Mobilisation for Survival.

Peace tax

The Peace and Development Fund is an organisation that aims to give people greater power over how their taxes are used, specifically, in relation to financing war. Robert Burrowes explains.

Despite years of effort by concerned people, Australia continues to participate in the global nuclear arms race. The Australian Government exports uranium, encourages port intrusions by nuclear warships and accepts the presence of foreign military bases.

There are many reasons for opposing the nuclear arms race. It threatens planetary extinction, or at least a severe disruption in the evolution of human civilisation. It is also a gross misallocation of global resources in which the people of the developing world, the environment and non-human species are the immediate victims.

Finding creative responses to this continuing predicament is a challenge which concerns all activists: it is also one which allows room for different approaches.

It is evident that new forms of action which build on the consciousness raising and mobilisation achieved by such

activities as community education, peace rallies, the uranium blockades and base actions need to be considered. Those that allow a high level of community involvement are particularly valuable.

One initiative which deserves renewed attention in the Australian context is a war tax redirection campaign. The main reason is simple: whatever else we do to protest against Australia's involvement in the nuclear arms race, we cooperate with that involvement by paying for it with our taxes. We thus legitimate violence in the most significant way possible: we pay for it!

War tax redirection is the conscientious refusal to pay part or all of one's taxes because they are used to finance military expenditure and participation in war. In Australia, 10 per cent of the federal government budget is allocated to the military while other budget allocations pay for our participation in past wars.

There are active war tax redirection campaigns in many countries: Belgium, Canada, West Germany, France, Italy, Japan, the Netherlands, New Zealand, Spain, Switzerland, the United States, the United Kingdom and Australia are some of them.

One advantage of a war tax redirection campaign is that most people could be involved at some level.

In Australia we have had a Peace Tax Campaign since 1983. A primary purpose of this campaign has been to lobby for the introduction of a Peace Tax Fund. This is a legislative change that would allow people to mark their tax return indicating that they wished the proportion of their tax normally used for military expenditure to be allocated to the Peace Tax Fund.

In a further development in November 1987, a new organisation called the Peace and Development Foundation was created. It was legally incorporated on 3 December 1987 and publicly launched on 8 February 1988.

The Foundation has four purposes. Firstly, to raise community awareness of the nonviolent means of achieving global security. Secondly, to raise awareness of the fact that taxes are used to finance Australia's military spending. Thirdly, to support campaigns seeking legislative changes so that people can ensure that their taxes are applied to non-military purposes. Finally, to generate funds for the promotion of peace, development, ecological harmony, social justice and political participation by nonviolent means.

The Foundation has a related set of objectives: primary among these is that people who have a conscientious objection to paying military taxes can deposit a proportion (or all) of their taxes with the Foundation. The taxes will then be held in trust on the depositor's behalf until their return is requested (perhaps to avoid action by the Tax Office) or until they are donated to the Foundation.

These donations will be used to support the initiatives mentioned above as well as to develop nonviolent methods of conflict resolution and to make people aware of these methods.

The Foundation will also support the preparation and presentation in court of arguments intended to establish the legal right of individuals to resist paying taxes for war and the arms race given their rights and duties under international law.

The Foundation is conducting several campaigns to encourage support for its work. Public education is one of them, as are activities which allow different levels of involvement.

For people interested in war tax protest



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actions, the Peace and Development Foundation recommends the following initiatives:

For PAYE taxpayers:

1. Place a sticker saying 'I want my taxes to pay for peace not war' on your tax return, envelopes and other public documents.
2. Find creative ways of completing or presenting your tax return which highlights your objection to military spending.
3. Donate \$10 (or more) to the Foundation and claim it as a tax deduction.
4. Claim a 'war tax rebate' of 10 per cent on the grounds of conscientious objection to military spending.
5. Consider the following suggestions:
 - a. form a company into which your wages can be paid as contract payments thus allowing you to direct your taxes where you choose.
 - b. earn an income below the tax threshold.
6. Encourage employers to deduct only 90 per cent (or none) of the scheduled PAYE tax payments from your wages (and that of other employees).
7. If you receive a notice of assessment indicating that extra tax is payable, redirect 10 per cent (or all) of it to the Foundation.

For taxpayers who control their tax payments:

1. Sign the '1,000 resolutions' declaration — an agreement to redirect tax to the Foundation when 999 fellow taxpayers agree to do so.
2. Redirect a symbolic \$10 of your tax assessment to the Foundation.
3. Redirect 10 per cent of your tax to another government department (such as the Department of Foreign Affairs) specifying that it be used to support peace and development initiatives.
4. Redirect 10 per cent (or all) of your tax liability to the Foundation where it will be held in trust on your behalf.

The potential of war tax redirection to have a desirable impact on Australia's complicity in the nuclear arms race is significant because it undermines the financial source of war and the military.

Robert Burrowes can give further information regarding the Peace and Development Foundation. You can contact him at P.O. Box 167, North Carlton, Victoria 3054. Phone (03) 387 3398(H).

Banking on disaster

Over the past few years there has been an increasing amount of pressure on the World Bank and other multilateral banks to improve their performance on environmental and social issues. Many of the development projects they have funded have ended in ecological and human disaster. Carol Sheman reports.

Although the World Bank states that it has been the leader amongst development institutions regarding environmental work, its record is renowned for disbursing loans to projects which have accelerated the rate of deforestation and environmental degradation in many parts of the Third World.

Since July 1988 there have been important reforms in the World Bank. There has been roughly an eightfold increase in staff devoted formally to environmental work. However, it must be questioned whether the 65 employees

from a professional staff of over 3,000 is sufficient when the bank is involved in approximately 200 major projects in over 50 countries.

Barber B. Conable, the Bank's President, has taken a number of steps to initiate more programs to alleviate poverty, expanding lending for population and health programs and working on establishing an environmental action project. Constant monitoring of the Bank's performance must be maintained to ensure that the meaningful rhetoric becomes reality.



Yet basic issues must still be addressed such as access to information and involvement by non-government organisations (NGO's) and local communities in the establishment and planning of projects and the enforcement of loan conditions to protect human rights, socio-cultural factors and the environment. Avenues must be created to direct funding away from mega-developments to small-scale sustainable projects with long term benefits for the land and the people.

The World Bank was created in 1945 to provide credit for the economies of post-war Europe. Since then it has transferred its attention to the 'developing' world. In 1987 it made loans of about \$17 billion to the developing world making it the largest on the international development scene.

Its finances come initially from contributions made by its 151 member states. Control is vested in a Board of Directors representing governments whose votes are proportioned according to the amount they have funded the Bank. Thus, the USA has nearly 20 per cent of the vote and the honour of always appointing the Bank's President. The top five nations, the US, the UK, West Germany, France and Japan, hold 45 per cent of the vote.

Whatever its projects, it is first and foremost a bank. It lends money and wants that money to be returned with interest. In 1987-88 the Bank had profits of more than \$1 billion. The interests of the Bank must inevitably take priority over environmental concerns and long-term benefits for the majority of the people.

Every single minute during the first three months of 1987 Mexico sent US\$35,000 north to pay the interest charged by Citicorp, Bank of America and others without making a dent in the debt itself.

The Latin American debt now totals more than \$400 billion. Every child born south of the Rio Grande enters the world owing US banks over a thousand dollars. It has been estimated that a ten hour moratorium on interest payments could save 100,000 malnourished Mexican children. The story is more or less the same in each of the 26 debt-starved nations of Latin America and the Caribbean. John Ross, a Mexico City based journalist, says 'The truth is that 400 years of pillage of the raw materials of Latin America — including the sweat and blood of its people — have long ago repaid this debt in full'. It is now time for the banking community to realise this, and take away the gun it holds at the heads of an already poverty stricken population.

World Bank projects — A few examples

Environmental and socially based NGO's and other concerned groups have waged an international campaign to get the multilateral banks (MDB's) to adopt stringent policies to safeguard the earth and its people in the face of development. Certain of the Bank's more infamous projects, such as Polonoereste, received international attention when the severity and extent of environmental destruction became known. So much was the criticism of this project that the loans were suspended for a period. Like many projects, the indigenous people were totally overlooked while 'peasants' were brought in to 'work' the land.

The result is that tribal people continue to face a fierce 'war' waged upon them in the name of progress. Their very survival is threatened by the loss of their homeland with which they have lived exclusively for hundreds of years in total harmony with the earth. Biocultural and ecological destruction is witnessed as the poverty bound migrants are moved in to clear the forests for their livelihoods.

Transmigration in Indonesia had the same effect on the land and tribal people. This World Bank funded project involved the mass movement of millions of landless poor from central Indonesian islands of Java, Madura, Bali and Lombok to the less densely populated outer islands. Promoted as a humanitarian exercise with the goal of raising living standards, it led to the permanent destruction of vast areas of tropical forest. Tribal peoples have been denied compensation on what was an invasion of their ancestral homes.

The Bank has said that it has learnt from its past mistakes but it is difficult to see whether this is true. Food and timber exports must continue for the developing countries to earn foreign exchange needed for paying the interest. Throughout the Third World small farmers must give way to export-orientated plantations and livestock schemes to pay for the Pharaonic type development that their governments want to implement and the MDB's make possible.

In India

India is one of the recipient countries. Millions of dollars are being poured into projects with the most dire outcomes. In a statement by Smitu Kothari before the Subcommittee on International Development Institutions and Finance Committee on Banking to the United States House of Representatives on 24 May, 1988, he charges:

The World Bank continues to disburse funds for projects which are violating the Bank's own publicly stated policies, and in some cases which violate the Bank's loan agreements with the Government of India and relevant state governments. In two such cases — Sardar Sarovar and Bodghat — the Bank approved funds for the project even before there was an environmental clearance from the Indian Department of Environment and Forests. Other evidence suggests the Bank has continued to disburse funds, in many projects, without undertaking an environmental impact assessment, without ensuring that a comprehensive cost-benefit analysis is made mandatory, and without ensuring that a comprehensive resettlement plan is an integral part of the planning of the project...

Rather than being instrumental in promoting the long term sustainability of Indian people and their environment, a large part of the World Bank funds have had a negative impact

that has sharpened the cleavages between the rich and the poor, exacerbated widespread impoverishment and contributed to the destruction of some of the last remaining wilderness areas in our country. The impact of the last two decades of Bank lending in India has, to say the least, been catastrophic.

Even with the Bank's reorganisation, there has been very little evidence to suggest changes in its basic priorities or in specific projects. Little is being done to remedy the situation that already exists from some of these schemes. A major concern in India is the Singru area which has been transformed since the 1960's into an environmental and public health disaster. The World Bank has committed US\$850 million since 1977 to develop the National Thermal Power Corporation's Super Thermal Power Plant, the Dudichua coal mine and transmission lines to feed the northern grid. The projects that the Bank has financed have forcibly displaced 23,000 people, who received little or no compensation.

Degraded public health, toxic air and water pollution, and widespread deforestation directly affect tens of thousands of people living in the Singru area. It is only now, ten years after the first loans, that the Bank is assisting in the preparation of an environmental assessment of the region. Yet it does not involve local NGO's or community groups. When a team of World Bank staff visited the area in February 1988 the local people were given no hearing. The Bank has been promoting its new attitudes of encouraging working relationship with NGO's but the only way the NGO's could have contact with Bank staff was to camp on the doorstep of their lodgings.

If the World Bank was serious about its environmental and social protection policies it would stop funding the

Narmada Valley project. The building of the Sardar Sarovar Dam and the Narmada Sagar Dam are part of a massive scheme to construct over 3,000 major and minor dams. This entire scheme will displace 1.5 million people, the resettlement of the 80,000 people displaced by the Sardar Sarovar Dam has led to increased poverty and suffering. The dams will submerge about 350,000 hectares of forest and 200,000 hectares of cultivated land. Along with the forest goes many species of flora and fauna as well as a whole social and cultural way of life.

Apart from the massive problems resettling people when there is not enough alternative land, construction of the dam will cause deforestation, destruction of wildlife, risks of earthquakes, siltation, and waterlogging as well as increasing the risk of water-borne diseases. The Bank's environmental assessment studies fail to take into account the risk of ecological stress from the impounding of vast volumes of water. It also fails to calculate the environmental stress due to the movement of people into areas that are already environmentally degraded.

Funding for projects like the Three Gorges project in China raise further questions about the Bank's reform policies. If the major dam was built on the lower Yangtze River, it would prove to be extremely destructive. Hundreds of thousands of acres would be inundated and up to three million people would be displaced. Money spent on this project could be better spent on upgrading some of China's existing industries and be siphoned off into smaller projects that would truly aid China and her people.

Forestry projects geared to commercialism, hydro-electric projects, irrigation schemes, mining and other mega-developments are all tearing the earth's skin, puncturing holes and leaving irreversible scars. The World Bank is a body that could work if governments,

experts and economists could really grab hold of the concept of sustainability. Once it does away with short term profit at the expense of the environment, true development projects could really begin. These should be conceived with the help and involvement of the local people who know what is needed for the area. Projects that give life to the land will surely be of greater economic significance in the long term. The World Bank and the other MDB's must explore the possibilities of smaller schemes, that promote sustainable living for the masses rather than propping up the privileged few.

Australia's Interest

In Australia we contribute to this charade called aid through the Australian Development Assistance Bureau (ADAB) and through our participation in agencies such as the World Bank. As yet, there is no mechanism within ADAB to ensure that the \$1,000 million earmarked annually for overseas aid follows any environmental guidelines. The Senate Enquiry that was set up in May 1987 to review Australian aid policies will report in August 1988.

To maintain pressure on the question of multilateral bank funding, constant appeals to the governments and banks must be maintained. This can be achieved by most people picking up a pen and writing a simple letter. The Rainforest Information Centre can supply further details of specific projects funded by the World Bank. Letters can be addressed to:

Mr Robert Carling
Alternate Executive Director
Australian Sector
The World Bank
1818 H Street NW
Washington DC
USA

or

Mr Barber Canable
President of the World Bank
1818 H Street NW
Washington DC
USA

or

Mr Paul Keating
Australian Governor to the World Bank
The Treasury
Canberra ACT 2600

Carol Sheman is active with the Rainforest Information Centre in Lismore, New South Wales.



Green economics

Rarely does a day go by these days when most of us don't choke on our corn flakes as we read of yet more bad economic news: government spending is being reduced, interest rates are staying high, real wages have fallen, privatisation is on the march — the list goes on. We all know Australia has an economic problem but few of us understand why. What is the cause of all this breakfast pain? Greg Buckman explains.

Basically Australia's problem is that it has a very large overseas debt which has grown like topsy throughout the 1980s. In June 1980 Australia's foreign debt was equal to 11.2 per cent of the nation's Gross Domestic Product (GDP — the value of all goods and services we produce each year) but in June 1987 our debt had equaled 40.2 per cent of our GDP.

Australia is not alone when it comes to foreign debts. Nearly every country in the southern hemisphere has a large foreign debt although few in the northern hemisphere have the same problem. In 1988 the combined foreign debts of all the debt-ridden nations in the world is estimated to stand at \$1.47 trillion, almost exactly what the world spends on arms each year. In terms of the relative burden that our foreign debt interest payments impose on our exports of goods and services, we are a 'middle order' debtor, being worse off than some countries in Africa and the Pacific but better off than the infamous debtor countries in South America like Brazil and Mexico.

We built up our debt in the first place largely because we rely on raw materials for most of our exports while most imports are manufactured items. About 80 per cent of Australia's exports are minerals and rural produce with wheat, wool, iron ore and coal accounting for about 40 per cent. But about 70 per cent of our imports are manufactured items

like machinery, vehicles etc. In terms of trade make-up, we are much like a Third World country.

For several decades now most raw materials have experienced a general decline in export price, a disease that has not affected manufactured items. Between 1960 and 1987 the prices of Australia's raw material exports compared to the prices of our manufactured items have fallen by an average of one per cent each year. The main reasons for this decline are:

- Increased efficiency around the world in the use of raw materials and their replacement by synthetics. Substances like nylon have increasingly replaced wool for instance.
- A global drift in spending away from products that use lots of raw materials towards services that use far less. These days people are inclined to go on a holiday or buy computer software instead of a new car or refrigerator.
- New technology which allows many countries to produce some of the raw materials, like food stuffs, which they previously imported. Raw materials have also been cheaper and easier to produce for export by using fertiliser or new methods of discovering and extracting minerals.
- Agricultural protectionism and subsidisation, particularly by the

United States, Japan and countries in Europe. In 1988 alone, subsidisation by countries belonging to the OECD is estimated to be \$200 billion.

- Interest rates around the world in the 1980's generally being set at much higher levels than they were in previous decades because many countries have taken a new determination to fight inflation ahead of other economic woes. Higher interest rates mean slower world growth and a deceleration in the world's use of raw materials.
- Reduced imports and expanded raw material exports by countries that are trying to trade their way out of bad foreign debt situations.

So our big foreign debt is the product of a complicated web of economic factors. Most of them are structural and are probably here to stay. They will continue to plague us in some form or another for as long as we continue to rely on raw material exports.

Over the past eighteen months some raw material exports have risen quite significantly which has eased Australia's debt situation. But any economist worth his or her salt won't lay bets on raw material export prices staying firm for long, they could start to fall again at any time. There have been warnings by the Reserve Bank and the Federal Treasury in the budget papers indicating that both groups definitely do not expect the rises in raw material prices to last. Current speculation points to a new downturn in the second half of 1989. If they do go through new, significant falls, we'll probably see a new round of high inflation, high interest rates, a spiraling foreign debt, falling living standards — not to mention very desperate politicians. It has been said that foreign debt

problems have toppled more governments around the world than the military.

By now you are no doubt asking yourself why Australia simply doesn't start spending more on manufactured exports. Great idea! But despite a number of Government incentives and the benefit of a lower Australian dollar, which is meant to make our exports cheaper, there are not yet truckloads of Australian manufactured goods appearing on the world market. And business investment figures generally suggest that Australian companies are much less excited about investing in manufacturing industries than in others like mining and finance.

Many economists just argue that it will necessarily take a long time for the Australian manufacturing locomotive to get going and that we simply have to be patient. But my money is on a different argument that says it never will really get going because Australia's economy is too small and vulnerable. The very considerable logs which lie on the tracks of Australian export manufacturing include that fact that unlike big northern hemisphere manufacturers, Australia, manufacturers can only achieve a small economy of scale with a relatively small national market to draw upon and a lot of potential investment capital in our new, deregulated national economy is being used for purely speculative purposes and isn't necessarily attracted towards manufacturing. But the biggest log of all is the fact that manufacturers often have to import foreign machinery when they are establishing themselves and the lower Australian dollar as made these imports more expensive. Our lower dollar was meant to be a 'shot in the arm' for export manufacturing but it may end up being the biggest bogey.

Australia's dollar was also meant to make the rest of our exports cheaper and therefore more competitive. The problem with that strategy has been that many other large raw material suppliers like Canada, South Africa and Brazil, had exactly the same idea and did the same thing, making us comparatively no better off.

It all looks rather hopeless, doesn't it? Paul Keating doesn't think so. His economic strategy has been to expose the Australian economy to as much foreign competition as possible so that we basically fight our way out of the mess. Real macho stuff. He's convinced that deregulation and smaller government will make Australia more dynamic and able to take on all comers. Impressive to some maybe. The problem is that earlier this year Mr Keating admitted that Australia would 'cop it in the neck' if raw material exports prices began to fall again before he had restructured the Australian economy, that after all the pain we have already endured we would probably be no better off.

So where is the solution? Some commentators have said that the global debt problem of which Australia is a part, is the first big social problem for which left wing thinking has no solution. Certainly on the Australian public stage there is complete silence about a real alternative to the government's economic direction. The only thing the major parties disagree on is where the full stops should go.

But this year has seen the first ripples of some new political movements that are neither 'left' nor 'right' which may end up making a big splash with the offer of real economic alternatives.

In 1987 a progressive national activist

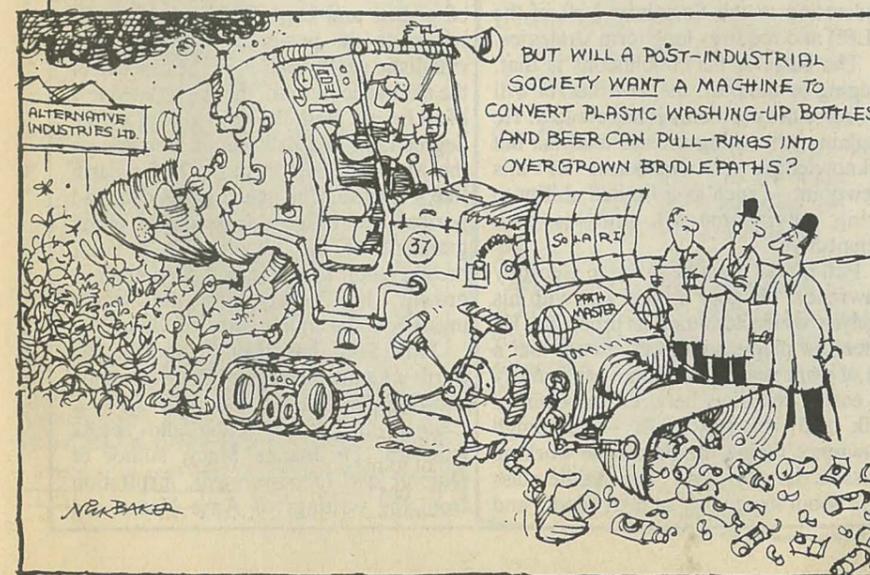
group called *the Rainbow Alliance* was formed. The group includes a core of people in Melbourne who throughout the past twelve months have devoted a lot of their energies to formulating a new economic strategy for Australia. In March 1988 they held a very successful conference in Melbourne entitled *Remaking Australia* where new economic ideas were flagged and discussed. Shortly afterwards they released a discussion paper of their ideas. Some of the main proposals in the paper were: the introduction of a guaranteed adequate income for the poorest 30 per cent of the community, introduction of significant regulation to curb imports and to control capital flows, creation of a national investment fund to facilitate the long term restructuring of industry and a ten year phasing in of full employment.

In Tasmania a group of people loosely connected with the 'green' state politicians, Gerry Bates and Bob Brown, have also begun compiling a new economic strategy for that state. The main thrust of their thinking is to use higher mineral, electricity and timber royalties in a state that has always undersold its resources to fund subsidised import replacement and the government stimulation of locally owned small businesses. They are also talking about special taxes for industries that pollute the environment and withholding government permission for new industries that are not majority locally owned. These thoughts are not necessarily the policies of Bob Brown or Gerry Bates.

Both groups are in the early stages of discussion and are some way away from holding solid public positions on the economy. The two most common threads that run through both approaches are: firstly an insistence that economic activity be as compassionate towards people and the environment as possible and secondly that both local and national economies be as self-reliant as possible — the antithesis of Mr Keating's argument that we should get out there and fight like hell being as internationally competitive as possible.

Yes, these two groups represent very small seeds in a large and rocky field. But nature is an extraordinarily resilient life-force that may eventually produce a healthy field of flowers just when the Australian economy most needs cheering up.

Greg Buckman lives in Tasmania and is co-editor of the Tasmanian Green Independent Quarterly magazine Edgeways.



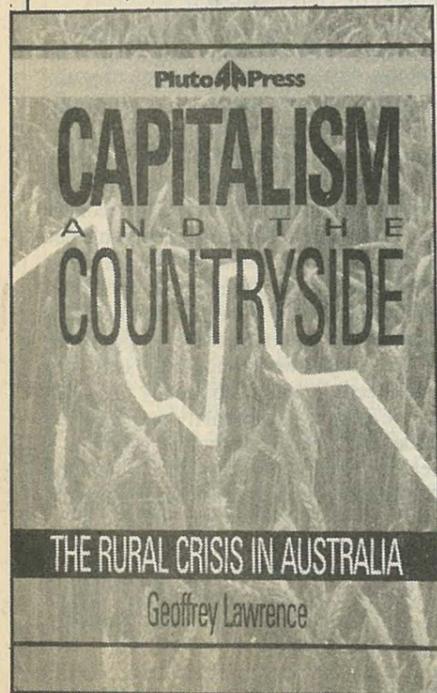
BOOKS

Capitalism and the Countryside: The rural crisis in Australia by Geoffrey Lawrence. Pluto Press, 1987. \$19.95.

Reviewed by Roger Kemp

Driving through New South Wales along the Newell Highway a friend and I happened to stop in Dubbo for lunch. From shop to shop we hopped hoping to find something other than a pie or chips. Impossible. This is one end of the problem of capitalism and the countryside — the quality of our food.

Meanwhile, elsewhere in Dubbo, the National Party were having their national conference. This is the other side of the problem — the application of 'liberal economic theory' to the problem of the rural crisis, the idea that more of the same of what caused the problem, will cure it. Or so says Geoffrey Lawrence.



To give an outline of *Capitalism and the Countryside* is easy, just read out the chapter titles. Chapter One: Down on the Farm, The Crisis of Australian Agriculture. Chapter Two: The Social and Environmental Impact of the Rural Crisis. Chapter Three: Explaining the Crisis, The Orthodox View, and so on. It is a marvelous politico-economic history of rural Australia.

It is difficult not to compare this book with Sarah Sargent's *The Foodmakers* (1985). *The Foodmakers* concentrates on agribusiness and the corporate farmers and sees co-operatives as a solution to the problems facing farmers, the idea of 'co-operation, not corporation', the Namoi Cotton Co-op in New South Wales being a good example. Co-ops are run by farmers and so look after the farmers interests in a way that corporations don't, but still within the realms of capitalism.

Lawrence's solution also involves co-operatives, but supported by a socialist state, a solution which he admits isn't quite feasible at the moment (imagine convincing farmers to switch their allegiance from the National Farmers Federation to the Socialist Left of the ALP!) and requires long term strategies.

The basis of his conclusions is that, judging by the past, the free market will not solve the problems it has created. He explains why using a class analysis but acknowledges the weakness of this viewpoint — such as a limited ability to bring environmental politics into perspective.

Full marks must be given to Geoffrey Lawrence. He goes a long way with his analysis whilst admitting its problems. He offers no magic solutions, except that a lot of work needs to be done, particularly in easing relations between the country folk and the city folk — although Lawrence mainly discusses the working class in the city (Don't the middle class care about the quality of their food?) and

talks of 'farmer-worker' relations, and he does admit that there may be support from 'smaller groups such as the ecology movement, the environmental lobby, and Aboriginal and Women's groups'.

Overall, a very informative book with a valid class analysis of the situation, and one that admits to (most) of the inadequacies of that perspective.

Roger Kemp lives in Brunswick, Melbourne. Like everyone who eats, he is involved in food politics.

Thinking Like a Mountain — Towards a council of all beings by John Seed, Joanna Macy, Pat Fleming and Arne Naess. Illustrations by Dailan Pugh. New Society Publishers, 1988. \$15.

Reviewed by Richard C. Bingham

'To Hear Within Ourselves the Sound of the Earth Crying'. This is the way to save the Earth and ourselves by realising the enlightenment within and without is the balance to the threat of the accelerated extinction of the environment. The series of poems and expositions awakens the reader to the power of returning to a ritualistic reaffirmation of the essence of the natural ecosystem, the interrelatedness of all beings, with the need to explore the degradation and destructive imbalances that are corroding the purity of the Earth like a disease. The nature poets can read portents and refine a sense of awe at the grandeur of the fusion with nature's breath, nature's pure stream of continuous growth, her beauty and the sacred mysterious harmonic sites of Gaia.

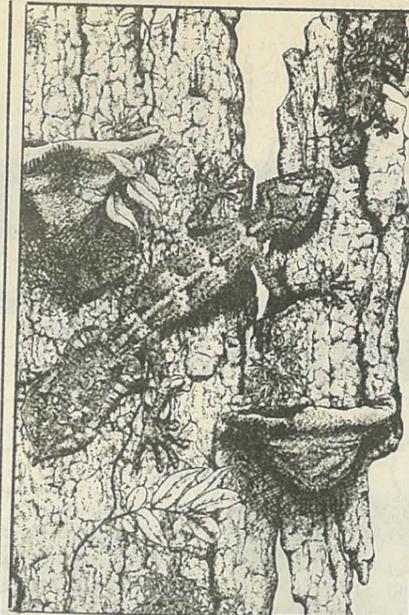
John Seed has been traversing the Earth with the message of Deep Ecology, showing *Earth First* and *Give Trees a Chance* in Europe, India and across America. Dr Joanna Macy, author of *Despair and Empowerment*, inspiration from the writings of Arne Naess and

assistance from Pat Fleming created the Council of All Beings ritual performed in Australia, the USA and Canada. The Rainforest Information Centre is waging a the world wide struggle to save the rainforest, with ever-increasing intensity and support of those who see the forests and environment almost sold out of existence, forgetting the planets survival, or that the gift of the green mantle may be more ancient than humankind's contracts. The great loss of the forest is contributing to the calamitous floods, deserts and natural disasters now happening.

A world moving group with these techniques, these themes, games and rituals; Despair and Empowerment, the Gaia meditations, Self Realisation, Evolutionary Remembering, the Council of All Beings Workshop Rituals guidelines may see a sudden vision, as described by Arne Naess, of '... the immense variety of joy through increased sensitivity towards the richness and diversity of life, through the profound cherishing of free natural landscapes'.

An invocation to Gaia tells us to 'awaken in us a sense of who we truly are: tiny ephemeral blossoms on the Tree of Life. Make the purpose and destiny of that tree our own purpose and destiny.

'Fill each of us with love for our own true Self, which includes all of the creatures and plants and landscapes of the world. Fill us with a powerful urge for the wellbeing and continual unfolding of this Self.'



'May we speak in all human councils on behalf of the animals and plants and landscapes of the Earth.'

Dailan Pugh's vision of forest and fauna, and poems from Gary Snyder and Robinson Jefferies, and Chief Seattle's message make this book an inspiration for a New Age, preserving the Earth for future ages. Now being able to see the plan of a planet's survival in a world web network of groups practising these rituals for raising the planet to these sudden realisations programed in this book.

Sri Richard is a member of the Nimbin News collective.

Read Any Good Books Lately?

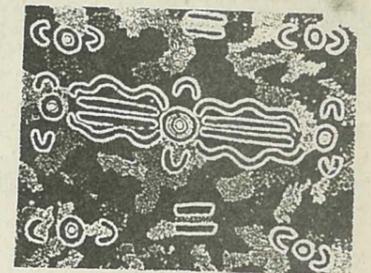
If you have, or if you have seen a film that you think people might be interested in hearing about why not write a review for *Chain Reaction*. Or you can write to us and tell us what topics you are interested in, Environment, Education, Peace or whatever and we can send you copies of books or tickets for film previews so that you can review them for *Chain Reaction*. If you are interested, write to:

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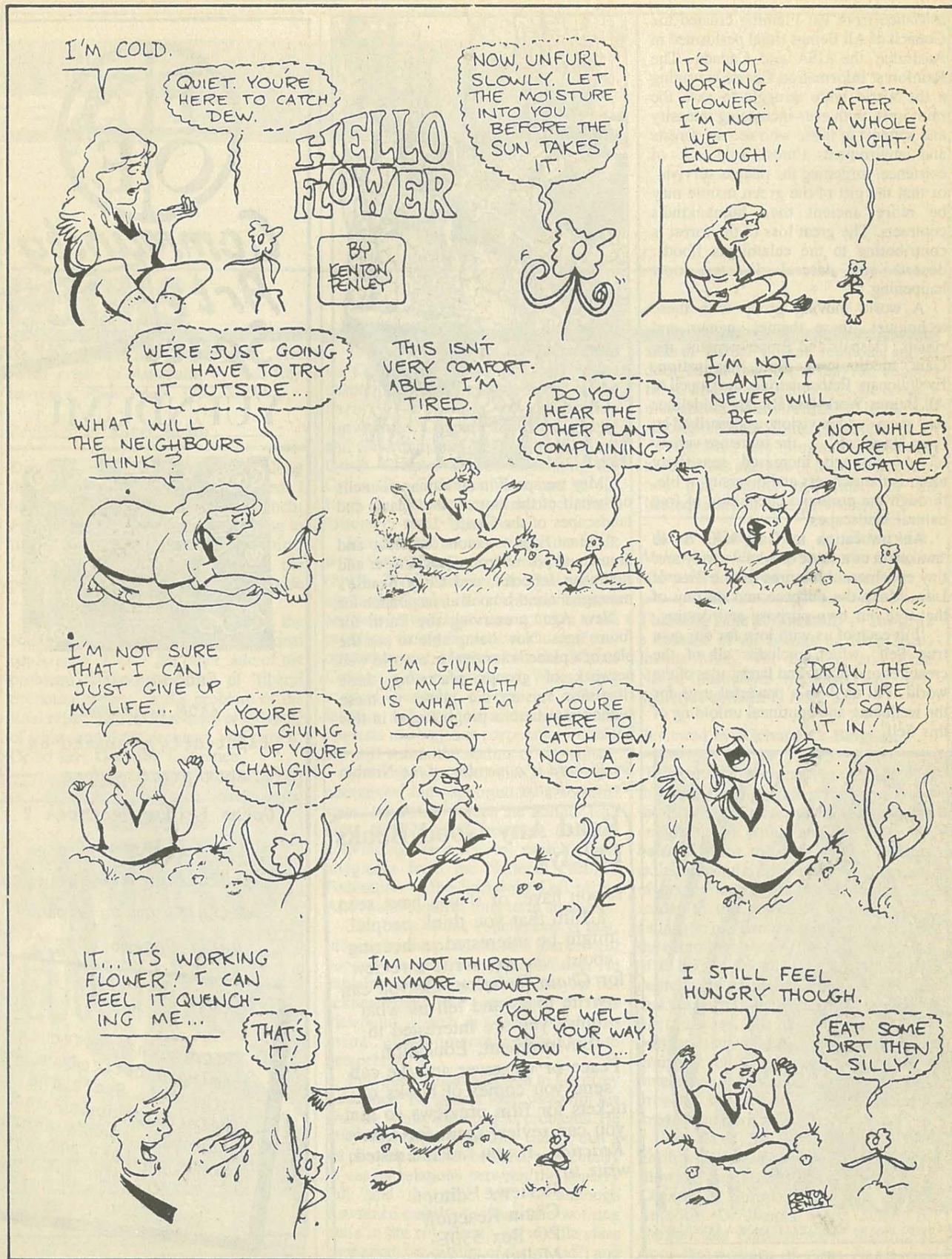
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