

Back from the wilderness...

Chain Reaction returns

Cashing in your woodchips

Who invests in forest devastation?

Follow the yellow cake road

Jabiluka, Beverley, Roxby Downs, Lucas Heights

Overviewing the nuclear industry in Oz

Globalising grass roots

Ricardo Navarro in Australia for the FoE International AGM

Catching up with FoE Australia campaigns

chain reaction

The national magazine of Friends of the Earth Australia

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Friends of the Earth Australia is comprised of the 13 Friends of the Earth local member groups. Members of Friends of the Earth local groups are automatically members of Friends of the Earth Australia

If you wish to become a member of FoEA, contact the Friends of the Earth member group closest to you for

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Friends of the Earth Australia environment. FoEA comprises 13

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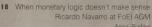
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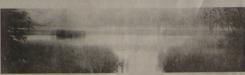
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Guest editorial

A lot has happened for Friends of the Earth since the last Chain Reaction magazine was published in December 1996. These past two years have seen the national network evolve in many of independent local groups has become increasingly a coordinated nanational presence and more groups active at the local and state level. groups have been experiencing stagnant or declining membership.

FoE Australia is unique in the Australian environment movement, in that national meetings. FoE is currently groups are based in capital cities, regional centres and rural areas.

during the national debate over diversified funding. whether Telstra (the national publicly

changes in the national structure of the from south western, Western Australia federation over the past three years. to Maryborough in mid-north Queenscampaigns, it was only in 1995 that nium, Sharing the Land (focused on including Armidale on the New Eng- each year, Chain Reaction Summer 1998/99

ways. What was largely a collection land & rights issues for Indigenous people). Sustainable Australia, forests, and the Ogoni/Shell campaign.

paigns, where local groups agree to work at both the local and national This has occurred at a time where level, has allowed for greater effecmany established environment tiveness and campaigning ability and helped enhance the sense of FoE be-

is the national organisation. There is there is not the likelihood of there be-volvement in global activities no central office and decisions are ing sufficient numbers to form a group. made via consensus at the biannual Loss of the traditional funding tralia's membership of the FoE Inter-(through the Grants to Voluntary Concomposed of 13 local groups and these servation Organisations Program administered by Environment Australia) forced the organisation to a long-over-FoE is also well known for its strong due analysis of its sources of funding political perspective and commitment and the creation of a number of strateto social justice. This was highlighted gies to provide long-term, ongoing and pendent groups that meet certain

owned telecommunications authority) the creation of a national vision docushould be partially privatised in order ment and the beginnings of a strategic to fund components of the federal gov- plan for the next 10 years. Analysis of ernment's environment program. FoE's the strengths and weaknesses of FoE strong position in opposing the Telstra has lead to the creation of various sale earned it enemies, but also greater working groups, including; gender, numbers of allies. It helped increase structural issues, fundraising, consti-FoE's profile among the trade union tution and membership development. and other progressive sectors of the Increased use of electronic mail in recent years has helped create greater There has also been substantial cohesion among the groups (spread

Many of the newer groups have al-

land Tablelands, Brisbane and Jervis Bay. Recently, a long-established group in Bridgetown, WA

In true style, FoE did much of the behind the scenes' work of the Jabiluka campaign, including much of the organising of buses to the blockade camp, and continues to be funda-The development of these cam- mentally involved in the campaign. The other key events for FoE in 1998 have been the hosting of the FoE International annual general meeting and the second Global Survival and Indigenous Rights conference, both to be held in ing a national- and locally-based or- Melbourne in late November. Although FoE Australia has been active within Perhaps the greatest benefit of the the FoE International network since it it is a collection of autonomous local federation is the presence of friends in joined in 1974, the last few years has groups which form a federation, which remote areas and smaller towns where seen a steadily increasing level of in-

> This has been facilitated by FoE Ausnational executive committee and also increased interest among FoE Australia campaigners in the international campaigns. FoE International is similar in structure to its member group in Australia. It is a federation of indemembership criteria and agree to work FoE has assessed its structure, with on issues of shared interest. This makes it unique among the global environmental non-government organisations which tend to have centralised structures.

A secretariat, based in Amsterdam, provides support to FoE member groups and, combined with the executive committee and the coordinators of the international campaigns and programs, provides leadership and direction at the international level without undermining the campaign-While there has always been a history land) and a stronger sense of being part than 4,500 local groups comprising the federation, FoE International is FoE formalised the idea of national ready hosted a national meeting. A ity with a strong global perspective. campaigns. At the present time there—number of new groups have become—FoE currently has member groups in are six such campaigns; wetlands, ura-established over the past two years, 58 countries and continues to grow



Editorial

Chain Reaction has been an institution in the Australian environmental movement since it was first published in 1975. Over the years it has focused on providing in-depth discussion and analysis of environmental and social issues which are underrepresented or misrepresented in the mainstream media. It has provided a forum for provoking debate, encouraging involvement and improving communications between various groups within the environmental movement, nationally and interna-

Chain Reaction earned the respect of the environmental community due to the dedication of its former editors and contributors-it is no small undertaking to attempt to live up to these standards. In continuing Chain Reaction we have made a commitment to be accurate, informative. reliable and timely. We aim to create a site for discussion that appeals to, and inspires, Friends of the Earth members as well as other environmental groups and sympathetic

members of the public.

Friends of the Earth Australia member groups are united in their intrinsic belief in an environmentally sustainable and socially equitable future. As an information arm of this network, we will ensure the content of Chain Reaction reflects this philosophy and creates links between grassroots and international issues.

In the current Australian political climate it is easy to become disillusioned, as we seem a nation bereft of leaders with vision or understanding of the threats which face the earth and our communities. We are witnessing the continued expansion of the nuclear industry in Australia (see pages 8-17) and the devastation of our wetlands and native forests (pages 34 and 40). Internationally, the World Bank is investing in projects which contribute to climate change (page 20) and widespread mining operations are still destroying the environment and cultures of many nations (page 24).

We don't want Chain Reaction to

become a compendium of gloomy forecasts of the future. Rather, we hope that it can be instrumental in bringing alternatives and solutions to the forefront of environmental debates. There are positive outcomes also, such as the progress in the implementation of the Cape York Regional Agreement (page 37), the success of community waste minimisation strategies in metropolitan Sydney (page 46) and, as Daniel Voronoff rightly points out in his article on uranium (page 14), following the October 1998 federal election the Coalition government has a greatly-reduced majority, providing some scope for progressive changes nationally.

Like our predecessors, we are heavily constrained by our lack of finances and assets. Any contributions in the form of donations of office equipment (we need a computer, a printer, a fax, amodem and answering machine) will be greatly appreciated. Spread the word to subscribe. Talk about Chain Reaction with your friends, work mates and family. The more people who read Chain Reaction, the more likely we are to succeed in influencing public opinion, galvanising public support for issues vital to the long-term wellbeing of our local, national and global environment

We welcome feedback and comment regarding the new Chain Reaction regarding anything from content to style. We're currently in the process of establishing an office in Ross House, Melbourne CBD, but can be contacted c/o FoE Fitzrov for the time-being. We look forward to your support. Enjoy the mag, and look out for issue number 78 in March 1999.

Cover photograph

The picture used on the front cover was supplied by Melbourne photographer Andrew Marshall

Andrew traveled to the Jabiluka blockade in August 1998.

The photograph was taking during the Hiroshima Day action at the mine site. Activists walked from the camp to the mine site at 6 am and, on the anniverary of the bomb being dropped at Hiroshima, everyone lay down and observed a 5 minute silence.

Andrew said the 'silent presence' was a powerful message to the miners who were at the action with bull-dozers.

Tristy, Anna, Barbara, Kulja Editorial team

Chain Reaction Summer 1998/99

Prestigious awards acknowledge activists

This year, half of the six prestigious Goldman Environmental Awards were presented to activists engaged in struggles against mining

Berito Kuwar U'wa (Roberto Cobaria) was awarded for leading his tribe, the U'wa, in their ongoing struggle with Occidental Petroleum in Columbia. The U'wa have threatened collective suicide if Occidental moves forward with plans to drill on



their traditional homelands.

Atherton Martin was honoured for his leadership in defeating mining giant BHP's plans to open a copper mine on the Caribbean island of Dominica. Martin successfully organised grassroots opposition to BHP's plan for a mine which would have devastated 10 per cent of the

Sven 'Bobby' Peek was recognised for having brought together racially divided groups in order to challenge the mining industry and government regulators in the heavilyindustrialised refinery regions of South Africa

The number of Goldman Awards that went to mining activists this year illustrates the continued threat of large-scale mining worldwide, and honours the relentless efforts of grassroots activists to challenge the industry's unsustainable practices. The FoEI mining campaign congratulates this year's recipients and stands in solidarity with their struggles for more socially just and environmentally sustainable commu-

Source: LINK May-June 1998

Deep-sea exploitation

Manganese, nickel, cobalt and copper deposits lying on the bottom of the sea are new targets for mining companies to exploit. The International Seabed Authority (ISA), set up under UN law, is currently working on a seabed mining code to regulate these activities to be adopted in August. The ISA has already authorised exploration contracts to investors in several countries. Source: LINK May-June 1998



Activists forced the postponement of the Melbourne annual general meeting of North Ltd sharehloders in November.

In Sydney, activists gained entry to the North Ltd shareholders meeting and bombarded the directors with enquiries regarding the companies activities. forcing question time to be cut short.

Monster-merger, only Antarctica safe from world's largest mining company

British mining giant Rio Tinto recently merged with Australia's CRA to form the world's largest mining company, with more than 200 subsidiaries in over 40 countries. With the exception of Antarctica, Rio Tinto is now present on

Several Rio Tinto projects have been subject to opposition from human rights and environmental organisations, including Friends of the Earth groups in several countries. FoE England, Wales and

Chain Reaction Summer 1998/99

Northern Ireland (EWNI), for example, has campaigned against Rio Tinto's vast coastal mining project in Madagascar since the tragic accidental death of FoE EWNI campaigns director Andrew Lees in 1995. Lees was on a field trip in Madagascar to examine the potential impacts of this mine, which will produce ilmenite, a mineral sand used to make whitener. FoE EWNI has continued Andrew's work by maintaining pressure on Rio Tinto to behave more transparently and responsibly in this remote area.

In January of 1998, Rio Tinto and the Malagasy government signed a mining establishment convention, signifying that national mining laws have been amended in order to accommodate the project. The scheme will be largest-ever mining operation in Madagascar. Yet Rio Tinto has been careful to distance itself from the project, insisting that excavation and even the decision to mine remain years away.

Source: LINK May June 1998.

Net effect: paranoid in Port Douglas

Australia's Plastics and tion has been warned growth in the use of the Internet

poses a threat to industry Chemical Industries Associa- profits in a climate of growing William Kovacs, was speaking environmental activism. United States Chamber of



Commerce vice-president. at the association's convention in Port Douglas and told delegates the biggest threat to plastics and chemicals, and perhaps all industry, is the ability for anyone to disseminate incorrect information cheaply to the entire world.

He says the use of the Internet by extreme environmentalists and greater amounts of public disclosure law will create fear and allow the sabotage of some of the world's biggest most powerful industries.

Mr Kovacs warns that when the tide changes against industry, industrialised nations will act like countries dominated by religious fundamen-

Fool on the Hill snubs UNESCO

Environment minister Senator Hill fronted with convincing and solid ardemonstrated a contempt for the international community and internationally recognised environmental standards when he made a commitment that the Jabiluka uran-ium mine would proceed even if the Kakadu Nain December.

UNESCO mission is unnecessary

the mission heard evidence from the Australian Academy of Science to the effect that the mine is under-designed, the water management system would not work properly in the extreme downpours common in the Northern Territory and that contamination would reach the Ramsar-registered wetlands.

Sydney anti-uranium campaigner, ously.' John Hallam, said the mission was shocked with what they saw in the Northern Territory where it was con-

Heritage in Danger.

Emeritus Professor John Mulvaney that the mine threatens the most ancient archeological site in Australia. Senator Hill has also said the which is the most ancient on the planet. And they have heard evidence In its time in the Northern Territory from former UNESCO consultant Peter Hitchcock that there are severe inadequacies in the environmental assessment process, and that the Jabiluka mine together with other possible projects such as Koongarra will members of your organisation or those who threaten Kakadu's unique natural and are clear about the challenge of confrontcultural heritage values. And they have ing the powerful to pledge your support. taken what they have heard most seri- knowing that our power is not money but

Desperately

seeking support

Dear Friends.

Centro Humboldt, a Nicaraguan environmental organization, in view of the latest having denounced the Korean lumber company SOLCARSA two months ago which was closed by the Supreme Court of Justice in February of 1998 due to its illegal plywood operations and for cutting down the forests of indigenous communities. The Koreans created the new company named PRADA SA, now with the face of a Nicaraguan company. Our organisation discovered the illegality of their actions and denounced them to the press We demanded that the corresponding authorities suspend the activities of the

Today the authorities are maintaining an administrative silence and the company has continued to work illegally for over a month. We the member organisations of the Forest Network of Nicaragua continue to apply pressure against these illegal measures and we will not stop because the truth is on our side.

Nevertheless, the company filed a legal guments for listing Kakadu as World suit against Centro Humboldt on the 15th of August, accusing us of damaging in-'They have heard evidence from sults to a Nicaraguan enterprise (Pedro Blandon Moreno). We then introduced an appeal to the suit a week ago. However the judge rejected it. We do not doubt tional Park was placed on the World They have heard evidence from the now how the power of money is work-Heritage in Danger' list by UNESCO Traditional Owners of the Jabiluka site inq in this case. We have also been victhat the project threatens their culture, tims of slander by the company in paid spots in the press, and by persecution against colleagues of our organisation.

> Therefore, we are asking for your signathis situation. This is the first time in the history of Nicaragua that a transnational company has sued an organisation. We ask that the truth.

You may send e-mails to our office, or via Source: John Hallam, Friends of the fax at + 505 249 2903 or + 505 2600136. Centro Humboldt

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Climate change causes tragedy in Central America

Human contributions such as large scale clearance of forests, international debt and possible humaninduced climate change, caused the horrific scale of the Central American hurricane disaster to be far worse than it need have been, according to Friends of the Earth International.

Hurricane Mitch struck Hondurs
in November 1998 killing hundreds
of thousands of people. Survivors face
a future without crops, adequate
medical aid, and in many instances,
clean drinking water.

FoEI is demanding urgent international action including the cancellation of third world debts and major cuts in the release of climate changing gases.

Central America once had about 500,000 km² of forest cover, by the late 1980s this had fallen to an estimated 90,000 km². Thirty per cent of Honduras' forest has been lost since 1960 with more than 800 km² being lost every year to ranch land, banana plantations, small farms and fuelwood collection. The expansion of fruit plantations is partly a result of the need to earn foreign exchange to repay debt.

The combined debt of Honduras and Nicaragua is \$U\$10.1 billion requiring that 20 per cent an 39 per cent, respectively, of each country's earnings be spent on debt repayment every year.

FoEI believes the severity of recent rains is almost unprecedented and fits predictions of the consequences of human-induced climate change.

Source: Friends of the Earth International

When the workers say yes to the earth...who can say no?

tives from green groups and union have been meeting to initiate an all unions green caucus. The green union will be non-factional and noninterventionist but will allow for greater co-operation between environmental groups and presents an opportunity for formally opposed seccome together and find ecological crisis. It provides a fresh look and a new vision that will seize opportunities.

The caucus hopes to provide unions with an international database which will provide current environmental information and encourage contact and integration between union, environmental groups, scientists, academics and community activists. The union hopes to provide support and direction to potentially huge industries such as solar technology.

Initiators of the Earth Worker Union include Dean Mighell, Secretary of the Electrical Trades Union, Leigh Hubbard, Secretary of Trades Hall, Loris Duclos, Australian Nurses Federation Member and Aunty Betty Kind, DhaurtWalker, Friends of the Earth representative commented that the importance of the union was that it created a united force.

'Conservationists and unionists are natural allies. Both the environment and worker rights are suffering because economic rationalism tells us that only profits matter, that all other values are irrelevant to the dominant model.'

For more information contact: Earth Worker, PO Box 2027, Lygon Street, North Brunswick VIC 3057.

Source: Earth Worker, Volume 1, Issue 1, April 1998

Three-eved deadly delicacy

Flounder, sole and mussels in Britain's largest estuary are contaminated with levels of radioactive tritum hundreds of times higher than expected. Tritium is discharged in the Severn Estuary by a factory in Cardiff run by Nycomed Amersham to make isotopes for the pharmaceuticals industry. British government scientists had assumed that the concentrations of tritium per kilogram of fish in the area would be the same as those in each litre of seawater.

But scientists at the Ministry of Agriculture, Fisheries and Food (MAFF) have found that this assumption was mistaken. Although levels of tritium in the seawater are less than one hundred becquerels per litre, those in flounder, sole and mussels were hundreds of times higher. Although the reasons for the high levels of contamination are still

under investigation, MAFF and environment agency scientists suspect that the precise chemical composition of some of the 700 tritium compunds manufactured at the Cardiff plant somehow made it more likely that the fish would eat them.

MAFF was alerted to the problem last year by Barry Lambert a radio biologist at 5t Bartholomew's medical school in London who has been studying tritium emmissions. He says that people eating large quantities of fish from the Severn Estuary could receive a quarter or more of internationally accepted dose limits from this source alone.



Dividends equal destruction: shareholder activism

More and more campaigners are adding the tactic of shareholder activism to their repertoire. Buying even a single stock allows activists access to corporate shareholder, who can then be educated about corporate environmental and human rights violations. To date, pressure from the inside has been a successful strategy for forcing certain concessions from companies. In recent months, human rights and environmental activists from around the world have taken their grievances with multinational oil and mining companies into the corporations' annual shareholders' meetings.

In Washington DC, speeches on the company's Nigerian operations by an exiled activist, human rights advocates and shareholders forced Mobil to agree to urge the country's military government to release jailed labour leaders. At Freeport McMoRan's annual meeting in New Orleans, CEO Jim Bob Moffet grudgingly listened to shareholders' concerns about human rights abuses connected with the company's Grasherg gold mine in Irian Jaya. Rio Tinto's shareholder meetings in both London and Melbourne were heavily attended by activists, including union representatives, and 'stakeholder' reports were widely distributed. At Arco's meeting in the US, a university student spoke out about the company's investment in Burma. which is currently under military dictatorship while the elected leader Aung San Suu Kyi remains under

house arrest. At Occidental Petroleum's meeting in Los Angeles, an Uwa leader from Colombia spoke to shareholders and sang a creation song about the earth, moon and stars, Occidental plans to drill for oil beneath the sacred land of the Uwa in the cloud forests; the tribe has threatened to commit mass suicide if the project goes ahead.

Source: LINK Project Underground May-June 1998



Fighting an uphill battle. Forest activists around the world continue to protect their native forests despite claims that their efforts are futile.

Scientists claim no hope for forest hot-spots

Attempts to save most of the world's tropical rainforest are doomed to failure and should probably be abandoned, claim a group of scientists from the European Commission's Joint Research Centre in Ispra, Italy who have mapped tropical deforestation 'hot spots' for the first time.

The report, which was published this month, comes from the research centre's Tropical East Coast System Environment Observation by Satellite project, which monitors deforestation in detail from space. Their conclusions on their selected areas were dire. They claimed there is no hope of stopping deforestation by logging companies and farmers in major rainforest regions such as Indonesia or much of the Brazilian Amazon. Parts of the rainforests of the central Amazon Basin, Congo and New Guinea might be saved, however, and priority should be given to identifying and protecting areas of high biodiversity in these zones.

Tim Whitmore, a forestry scientist from the University of Cambridge, and one of the team who compiled the report, named the Indonesian island of Sumatra as the hottest of the deforestation hot spots'. An island twice the size of Britain, it has lost virtually all its lowland forests in just 25 years. The team found that the driving forces behind the deforestation differed between regions, with South East Asia using the land for commercial crops, Brazil using the Amazon for cattle pastures and central Africa being dominated by logging companies.

Source: New Scientist, 31 Octobe 1998

Reclaim the future

Friends of the Earth anti-uranium campaigner Sarojini Krishnapillai explains the importance of continued opposition to nuclear industry activities



ight months, almost 3,000 people and 527 arrests later, the Jabiluka blockade packed up at the end of October 1998. Located about 17 km from the proposed Jabiluka uranium mine, the camp was the focus of much activity throughout 1998. The camp was established in March following the invitation by the senior Traditional Owner of the Jabiluka region, Yvonne Margarula.

'Mirrar people have fought to protect country and people from uranium mining for many years. Now we are defending our country against the proposed Jabiluka development. We invite you to come to our country to join the struggle to uphold the cultural and environmental values of Kakadu,' Yvonne Margarula said.

Despite an incomplete and inadequate approvals process, mining proponent Energy Resources of Australia (ERA) began construction at Jabiluka in June this year. During July almost 600 people from all over were at Jabiluka camp. Support for

Sarojini Krishnapillai FoE Fitzrov Anti-Uranium Collective

the blockade grew as the Australian government's disregard for environmental and human rights safeguards became more apparent. The granting of environmental approval for the Jabiluka project by Federal Environment Minister, Senator Robert Hill, despite contrary advice from his own department, exemplifies the Federal government's attitude to its obligation to protect Kakadu's natural and cultural significance.

Mirrar are continuing their fight to protect their ancestral homelands by pursuing a range of legal and international activities. Mirrar representatives will be attending the World Heritage meeting in Kyoto. This follows the visit to Australia by a high level World Heritage Bureau delegation in October 1998, to investigate the threats posed to Kakadu by the Jabiluka development and to determine whether Kakadu should be placed on the World Heritage in Danger listing.

The Federal Coalition government got a taste of what most Australians think of its pro-nuclear push with the overwhelming response to the national anti-Jabiluka campaign. With the re-election of the Howard government, anti-nuclear activism needs to again step up a gear. The proposed Beverley uranium project (located in South Australia's far-North) is likely to receive Commonwealth approval by the end of 1998. This is despite project proponent Heathgate Resources (100 per cent owned by Australia (plus international visitors) United States nuclear utility General Atomics) operating a 'trial mine' at

Beverley since 2 January 1998-six months before even a draft Environment Impact Statement (EIS) was released. The Honeymoon proposal. also operating without Commonwealth environmental approvals, is similarly set to be approved in the coming months.

The Jabiluka campaign drew thousands of people on to the streets around the country, in Melbourne, Sydney, Brisbane, Byron Bay, Lismore, Wagga Wagga, Newcastle, Wollongong, Perth, Darwin, Canberra and Hobart-all of which have groups working on Jabiluka, land rights and uranium issues. The Coalition government's push for new uranium mines, plans for a replacement research reactor at Lucas Heights and the proposed radioactive waste dump in South Australia will be met with opposition at every step along the way. Australian antinuclear activists are looking to their European counterparts to see how, after years of constant opposition. nuclear power is on the wane. Germany has committed to a complete cessation of nuclear power dependence over the next decade, withdrawing a number of reprocessing contracts and giving hope to Australian activists campaigning for European nations to boycott Australian uranium.

Friends of the Earth Fitzroy will be hosting the Nuclear Free Australia Forum (5-6 December 1998) to consolidate the work of a burgeoning anti-nuclear movement, develop strategies for action and determine how to further strengthen the indigenous, environmental, international and economic strands of Australian anti-nuclear campaigns. Please contact FoE Fitzroy for more information on (03) 9419 8700

Actio S S S OShii

Photographer:

All photographs

site



How on Earth?

An historical account of Jabiluka

he Jabiluka uranium deposit is one of the largest uranium deposit in the world, with 90,000 tonnes 'mineable reserves' of uranium in roughly 20 million tonnes of ore. It is exceeded in size only by a deposit in Canada, and on the planet by a factor of three.

The Jabiluka deposit joins the proclaimed in 1982. However, the Mining lease itself. it's a uranium mine, on Aboriginal Canada and at Narbarlek in Arnhem choice. Land, in a national park '

Kakadu National park one of only National Park is registered as of World | Earth, which showed that 'a mob of | Jabiluka mine. Heritage value under two cultural crihippies' could get the better of big Pancontinental Mining sold its interteris, and under three natural critemen in expensive suits with expensis est in the Jabiluka deposit to ERA

thousands of pictures in sheltered stringent conditions that would have Interviewed immediately before the

Uranium activist, FoE Sydney

Land by Queensland Mines.

60,000 years and they painted literally what it did was to specify a series of started immediately.

to be satisfied if uranium were to be mined, without saying that it should

Crucially, the Ranger inquiry recommended that the land of the region be given legally to the Aboriginal people by the world's largest uranium deposit, places. These now constitute the larg- who had been living there since time the Roxby Downs deposit, which at est and best-preserved body of rock art immemorial, and then leased back to around 360,000 tonnes is the largest in the world, dating from 20,000BC to the national parks service as a national park.

Aboriginal rock art sites at While the Ranger inquiry had been Ranger and Koongarra deposits lo- Nourlangie Rock, close to the fair and just, what followed was anycated in Kakadu National Park. Tech- Koongarra uranium deposit that thing but. After 1977, Ranger uranium nically, the Jabiluka project isn't 'in' French company COGEMA wishes to mining, which became Energy Rethe park, since the mining leases in develop, and at Ubirr, are currently sources of Australia (ERA), forced Abowhich the Ranger, Jabiluka, and accessible to tourists. However, much riginal owners of that land to negotiate Koongarra uranium deposits are situ- of the heritage value of Kakadu is due an agreement whereby the Ranger uraated were excluded from the park at to some 196 known art sites (there may nium deposit could be mined. The the time that Stage 1 of the park was be more) on the area of the Jabiluka Northern Land Council was told that if it did not negotiate to allow mining land covered by the mining leases is In the late 1960s uranium was disto take place, the entire Land Rights just as environmentally sensitive and covered at the Ranger site near the Act could be abolished. Mining comvaluable, just as wild and beautiful, sacred mountain of Mt Brockman by menced in 1982. Later on, the Northand just as archaeologically, cultur- Peko-Wallsend and Electrolytic Zincin ern Land Council was to sue ERA, ally, and spiritually valuable as the cooperation with the Atomic Energy claiming that the entire agreement was rest of Kakadu National Park. In the Commission, at Jabiluka by null and void because it had been words of uranium campaigner Dave Pancontinental Mining Co and Getty bought about by 'unconscionable con-Sweeney, It's got the full trifecta- Oil, at Koongarra by Noranda of duct' and was the result of duress, not

In 1982, Pancontinental Mining by a An environmental inquiry, the mixture of trickery, bribery, and 19 places on the planet c.at are regis Ranger uranium inquiry, the largest, standover tactics, forced an agreement tered as being of World Heritage value longest-running, most controversial, to allow mining from the Mirrar peounder both the natural and the cultural and most detailed in Australia's his-ple. The words of the then senior tracriteria of UNESCO's World Heritage tory, was held over 1975-77 to deterditional owner, Toby Gangali, 'I can't Committee. (Over 100 places are reg- mine what the future of the region fight any more were interpreted as istered as being of World Heritage sig-should be. It was made memorable by consent. The current traditional ownnificance altogether.) In fact Kakadu the participation of Friends of the ers have led the fight to prevent the

ria. All that is usually required for it sive lawyers, and make fools of them. which immediately started lobbying to be registered as World Heritage is Essentially, the Ranger Royal Com- the then Labor government to allow it mission as it was titled, refrained to mine, contrary to Labor Party policy. The Kakadu escarpment and its rock from recommending outright that When, in 1996, the Coalition governshelters were used by Aboriginals for uranium mining take place. Instead, ment was elected, preparations to mine



out. He was then the first to claim that have been occupied twice. the mining leases, while completely surrounded by Stage 1 of Kakadu on Australian Democrats and the Austral- mittee sent a High Level Inspection all sides, were not 'in' the national ian Labor Party have pledged to stop team, led by its chairperson Professor park, they were merely surrounded by the mine, though there has been some Francesco Francioni and the Director

Since that time, the fight to save party wanting to afford 'natural justice' Von Droste, which after a postpone-Kakadu from mining not only at to ERA. Jabiluka, but also at Koongarra, has taken on global proportions.

there to mount a protest. In March mandate not only for the Jabiluka sented to the next meeting of the Bu-1998 this became the 'blockade' of the 'project, but for 26 new uranium reau and Committee in Kyoto in late mine site, at which around 500 people projects, largely in Western Australia. November/early December 1998. We have been arrested.

gle was the 'strong country' celebration, cent of the Australian electorate, and and Von Droste, at the World Heritwhen some 100 people wearing John actually supported by a mere seven per age Centre in Paris, (+33 1 456 85570) Howard masks trespassed on the min- cent. ing lease and were arrested, giving their names to arresting officers as posed by a resolution in the European 'John Howard'. This event got photo- parliament (which this author helped cities of Jerusalem and Dubrovnik, the graphic coverage in newspapers in draft), by another resolution in the Yellowstone and Everglades National Germany, Sweden, and Lithuania. Pre- Australian Senate and by protest ac- parks in the US, the Royal Palaces of vious protests at Jabiluka have been tions in Tokyo, Osaka, Seoul, Bonn, Abomey in Benin, the famous Polish dramatic and confrontational, with Antwerp, Toronto, and Saskatchewan. salt mine at Wieleczka, Angkor Wat, complaints of police violence and uning water belonging to protesters in 40 Heritage Bureau and Committee, ask-struction. sulted in complaints to the Human placed on the list of World Heritage in places like this, owned as Kakadu is nal and to Amnesty International, as uranium mining. well as in a very large number of very Their letter was followed by a letter represented by Temelin, Mochovce, Minister of the Northern Territory.

Sydney confrontations have taken paign Director Alec Marr were present place in front of the head offices of and lobbied bureau members to place

1996 election that made him Prime Energy Resources of Australia, while Kakadu on the 'in danger' list. At the Minister, John Howard was asked if in Melbourne, the offices of ERA's par-same time, the Bureau's fax machines he would allow mining to take place in ent company, Norths Limited, (which in its Paris office were jammed by an Kakadu. His thoroughly dishonest re- is also responsible for major 'unprecedented' amount of correspondply was that he thought that environ- woodchipping operations and an envi- ence asking for the same thing, from mental considerations would rule it ronmentally disastrous gold mine) groups from India to Japan to Europe

At a political level, the Greens, the

rowly failed to win the election has led spection team will prepare a report and In 1997, a group of students went up the Government to claim that it has a recommendations that will be pre-

The most recent event in this strug- the kind. Jabiluka is opposed by 67 per or fax Professor Francesco Francioni

The Jabiluka Project has been op- Heritage in Danger.

The Mirrar people, Traditional Own- Timbuktu, and many other wonderful fair tactics such as pouring out drink- ers of Jabiluka, wrote to the World places which are in the process of dedegree heat. These tactics have re- ing that the Kakadu National Park be Rights and Equal Opportunities Tribu- Danger', as a result of the impact of by indigenous peoples, it passes

angry faxes from Japan, Europe, the to the same effect signed by every en- and R4K2, and then ends up as ei-United States, and New Zealand, to the vironment group in Australia and by a ther high level nuclear waste or weap-Jabiru Police station and to the Chief large number of overseas groups. At the ons-which are also tested on last meeting of the World Heritage indigenous peoples' land, or will be Protests have also been held in Aus- Bureau, in Paris, Traditional Owner disposed of on the land of indigenous tralia's major cities, with large protest Yvonne Margarula, Gundjehmi Abo- peoples (or at Gorleben). The fight to marches being staged in Sydney and riginal Corporation director Jacqui save Kakadu from uranium mining Melbourne at regular intervals. In Katona, and Wilderness Society Cam- won't go away.

to Brazil.

As a result, the World Heritage Comhesitation on Labor's part, with the of the World Heritage Centre, Berndt ment by the Australian government, The fact that the Labor Party nar- arrived in late October 1998. The in-In fact, it has absolutely nothing of are asking everyone who can, to write asking them to list Kakadu as World

If listed, Kakadu will join the ancient

The nuclear fuel cycle begins in through the stage of use in reactors

The scars don't show

Gavin Mudd explains the environmental consequences of In Situ Leach Uranium Mining

The alternative mining technique of In Situ Leaching (ISL), often referred to as Solution Mining, is becoming an increasingly favoured method for the extraction of uranium across the world. This is primarily due to its low capital and operating costs compared to conventional mining. However, little is known about the environmental performance of these facilities worldwide, and to date companies have been able to exploit this lack of knowledge to promote the method mining zone, and thereby the ability as 'environmentally benign'.

Friends of Earth (Fitzrov) and the Australian Conservation Foundation commissioned myself, as an Environmental Hydrogeologist, to study the performance and environmental impacts of ISL mines worldwide, in order to contribute to the debate about current ISL uranium mining proposals in South Australia and to critique industry justifications of the ISL technique. The report, released in July 1998, counters the misinformation being circulated by the mining industry regarding the safety and impact of the ISL technique.

The ISL process involves drilling a series of groundwater bores (or wells) into a uranium deposit, injecting and extracting corrosive chemicals to dissolve the uranium in situ within the ore zone, and attempting to control their movement in order to pump back the uranium-laden solutions. The method can only be applied to uranium deposits located within a groundwater system or confined aquifer, commonly in palaeochannel deposits (old buried river beds).

Although the ISL concept is presented in simplified diagrams by the nuclear industry, the reality of many geologic systems is that they are

inherently complex and not easily predictable-a fact readily demonstrated by any of the standard groundwater texts. One of the most difficult problems of an ISL mine is what they term an 'excursion', where the toxic and dangerous mining solutions escape outside the active of the mine operators to control the movement of those solutions is much more difficult. Cleaning up excursions can be technically 'challenging', and can lead to direct contamination of surrounding groundwater.

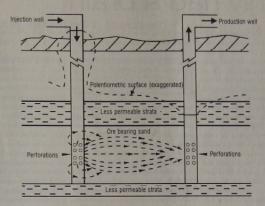
There are a range of options for the chemistry of the mining solutions. Either acidic or alkaline chemical agents can be used in conjunction with an oxidising agent to dissolve or solubilise the uranium from its mineral state to a soluble or water phase. Typical oxidising agents include oxygen or hydrogen peroxide, while alkaline agents include ammonia or sodium-bicarbonate or carbon dioxide. The most common acid used is sulphuric acid, although nitric acid has been trialled at select sites or in laboratory tests.

The chemistry used is one of the most critical aspects in determining potential environmental impacts and long-term changes to groundwater quality. The use of acidic solutions will mobilise highlevels of heavy metals, such as cadmium, strontium, lead and chromium among others, while alkaline solutions tend to mobilise only a select few heavy metals such as selenium and molybdenum. The ability to restore the groundwater

to its pre-mining water quality after ISL mining is arguably easier at sites that used alkaline solution chemistry, although by mid-1997 the regulators in Wyoming, USA. were yet to receive and review the full-scale restoration of groundwater quality at many former commercial ISL mines. Despite this fact, there have also been recent amendments to the licences at ISL mines undergoing decommissioning in Texas where cleanup standards were relaxed (for example: Clay West, Holiday and O'Hern) due to the difficulty of returning the pre-mining environmental quality to the groundwater system that was mined.

A review of the available literature on ISL mines across the world, compiled for the ISL report, can easily counter the many myths promulgated about ISL uranium mining. Whether one examines the USA, Germany, the CIS and associated states, Bulgaria, the Czech Republic, Australia or new ISL projects emerging across Asia, the truth remains the same-the ISL technique merely treats groundwater as a sacrifice zone. The natural geologic controls that prevented migration of uranium and heavy metals before ISL mining are removed by the nature of the mining process, and the conditions after mining persist that allow enhanced migration of radionuclides and heavy

The problem remains out of sight and therefore out of mind The use of sulphuric acid solutions at ISL mines across Eastern Europe, as well as a callous disregard for sensible environmental management, has led to many seriously radiologically and heavy metals-



contaminated sites. Perhaps the most ciency of the leaching process and severe example can be found at Straz pod Ralskem, where up to 200 billion litres of groundwater is contaminated enhanced excursions and environ-- restoration of the site is expected to take several decades or even centuries. Many recurring environmental problems of solution escapes (excursions) and difficult restoration have also been documented at ISL sites across Texas and Wyoming in the USA. A detailed review of many of these ISL projects is presented within the report.

Australian mines have experienced the same problems associated with ISL mining as other sites around the world, especially at the controversial Honeymoon deposit in South Australia during pilot scale trials in the early 1980s and at Manyingee in Western Australia through 1985.

The Honeymoon pilot project used sulphuric acid in conjunction with ferric sulphate as the oxidising agent. The wells and aquifer experienced significant blockages due to the minerals jarosite and gypsum precipitating, lowering the effi-

directly impacting operational capacity as well as leading to mental problems. The aquifers in the vicinity of Honeymoon are known to be hydraulically connected to aquifers used by local pastoralists for stock purposes.

The election of the Howard Coalition government to Federal parliament in Australia in March 1996 saw the resurrection of the Honeymoon Project in 1997 by Canadian Southern Cross Resources. The new owner of the nearby Beverley deposit, Heathgate Resources (a fully owned subsidiary of nuclear multinational General Atomics of the USA), established Beverley as a prospective new uranium mine following the controversial Jabiluka proposal in 1996. By 1998 new trials 'mines' were established at Honeymoon and for the first time at Beverley. Heathgate have finally released their Draft and Supplementary Environmental Impact Statements for the proposed Beverley Uranium Project and are keen to establish an operating

uranium mine as soon as possible. The new Honeymoon EIS is due any day. Both companies are refusing to rehabilitate their sites after mining and the state and commonwealth regulatory bodies continue to believe the weak arguments promulgated by proponents.

The ISL report, 154 pages in total, documents all of the above in detail with extensive use of graphics and diagrams as well as clear and concise text. The report is written to be understandable by all interested persons and should provide a good critique of potential hydrogeological issues at other uranium mining operations. The report is available (for a small fee) in hard copy or electronic Acrobat format. For those interested in a copy, please visit and follow the links:

http://home.vicnet.net.au/~seaus/ The technique of In Situ Leach Uranium mining is not controllable, is inherently unsafe, is unlikely to be able to meet 'strict environmental controls' and is not an environmentally benign method of uranium

If I only had a brain

The spread of the nuclear industry in Oz

ith the return of the Coalition to government there is no impediment at a Federal level to the expansion of the nuclear industry in Australia, Development of Jabiluka at Roxby Downs is nearly complete; dozens of uranium deposits around active waste dump is proposed for Billa hundreds of millions of tonnes.2 Kalina in South Australia; and the at Maralinga.

national and international level. With stored. this in mind, Friends of the Earth of suggested directions.

Nuclear waste dump

been progressing for nearly a decade. The evaluation process has mostly focused on site selection and predictably

metres of radioactive waste annually. Over the past 40 years Australia has

Daniel Voronoff Friends of the Earth, Fitzroy.

nuclear reactor at Lucas Heights. Ar- hospitals, or medical or other research, guably, these events signal the great- and the contamination of instruments Australia since the bomb was dropped protective clothing which arise as a intrusion.4 result. There are also significant quan-

December. We invite all concerned ac- for a remote nuclear waste dump. nuclear waste, tivists to attend. Here is a summarised 'Community concern' a euphemistic

identified Billa Kalina in South Aus. tralia as 'a suitable region' for the proposed National Radioactive Waste Repository. This area of 67,000 square kilometres stretches from Cooper Pedy continues; the expansion of operations 300 cubic metres of long-lived intermeto Maree to the south of Woomera. The diate and high level waste.1 These fig- proposed method of disposal is 'near ures exclude radioactive tailings waste surface', a commonly used technique of Australia have been marked for envi- generated by uranium mining which shallow burial, with nothing more than ronmental impact assessment; a radio- takes the amounts of wastes into the packaging and a few layers of soil maybe some concrete, to shield radio-These wastes are produced mainly active contents from people and the enapprovals process advances for a new from radioisotope use for diagnosis in vironment. In fact the bureau openly states that the proposed design will not even prevent leakage of water. Nor will est growth of the nuclear industry in and other materials such as disposable it prevent human, animal and plant

Under the prevailing ideology of eco-This circumstance represents a sig-tities of intermediate and high level nomic rationalism, concerns for the nificant challenge to environmental wastes generated by the research nu- bottom line have clearly over-ruled atand indigenous solidarity activists and clear reactor at Lucas Heights, for ex-tention to impacts on the health of demands some considered planning to ample, 1,600 highly radioactive spent nearby communities and environmenmap out a coordinated response on a fuel rods which are yet to be adequately tal contamination. There are some concerns that the repository may be The proposal, largely driven by the privatised and that the national facil-Fitzroy will be hosting a Nuclear Free Department of Resource Sciences, of- ity could become the basis for an in-Australia Forum in Melbourne on 5-6 fers a series of flimsy rationalisations dustry which accepts international

Friends of the Earth has always adupdate on the recent state of play in phrase which does not at all reflect any vocated that the remote disposal opthe nuclear industry around the nation, community input is commonly cited, tion amounts to irresponsible and some comment mooted in the spirit and works mainly as a ruse for hospiabandonment of radioactive waste. tals and other research facilities to Rather, institutions which create the cheaply dispose of their nuclear wastes. waste should be responsible for its safe Typically, it is argued that institutions storage. This will encourage waste The process of evaluating the need and which create the nuclear waste should minimisation and the adoption of alplacement of a nuclear waste dump has not be burdened with the responsibil-ternative technologies. Transportation ity of safely storing it and for this rea- of wastes to remote areas only enson it should be disposed of in a remote hances dangers by exposing communiregion. Invariably this will mean that ties along the route to risk of spillage shies away from examining the justifi- another small, under resourced, prob- due to accidents. There is a need on ably Indigenous community, will be the behalf of these organisations to frankly Australia produces about 60 cubic recipient of the nation's nuclear acknowledge that some of the isotopes, even if they are in small quantities, are Phase three of the Site Selection poisonous for hundreds and in some accumulated nearly 3,500 cubic metres Process, after a 'rigorous evaluation of cases thousands of years. This will reof low level and short-lived intermediate the Australian continent against a set quire the fostering of a long-term ate level radioactive waste, and 200 to of technical and social criteria, has guardianship culture based on sound



hecoming bio-available.

A new nuclear reactor at Lucas Heights

The approval process for a new nuclear other non-fissile technologies that can that proposals would be assessed on reactor at Lucas Heights is well produce medical isotopes much more individual 'environmental and ecounderway. Once again due process of impact evaluation is designed more to in Western Sydney.

nuclear weapons testing and other and local public opinion polls regularly government. military experimental use of fissile show that the proposal is deeply unmaterials. It is reaching its use-by date and will have to be decommissioned within the next five years.

Technology Organisation (ANSTO) currently administers and runs the Hi vocating the reactor, whereas funding Flux research reactor and are arguing has been flatly refused to community strongly, with the assistance of the groups to prepare an independent as- Arabunna people of South Australia is Department of Foreign Affairs and the sessment.9 Australian Safeguards Office, for a new facility to be built. Their primary arguments revolve around the need to Uranium mining has long been Ausprovide radioisotopes for medical diag- tralia's most significant contribution to nosis and a range of other research and the nuclear industry. We have the industrial applications for the local and world's largest reserves, however most possibly international market.5 How- of it is undeveloped and our market ing WMC powers to proceed with imever, the facts cast doubt over these share does not reflect what the mining punity and secrecy. Similar 'altruistic' reasons, given that there is industry regards as the 'bonanza po- circumstances are well advanced for a glut of radioisotopes on the world tential' of this mineral. market and that significant advances have been made in alternative technologies which can provide them.6 ability to make an effective contribu-

expertise to prevent the wastes from reasonable: we can send scientists to train at overseas nuclear facilities at possible with the election of the Coalifar less expense. Further, this resource tion to government in 1996 when they could provide much needed research declared that uranium was to be dollars for installing cyclotron and treated like every other mineral and

exclude the concerns of local residents ment and global security in general is legislative instruments which have and other critics and enhance the prob- best made by employing more effective been progressively devised to disposability of a research reactor being built diplomatic engagement. Indeed, a nu- sess Aboriginal people from their land clear reactor will only add to a sense for the past 200 years. It remains nec-The current research reactor was of regional insecurity as it is a poten-essary for environmentalists to mainsupplied by the British government to tial source of weapons production.8 tain and enhance this perspective as Australia in exchange for allowing the None of the reasons against the new we address the push to expand the urause of sites around the continent for reactor have been properly addressed nium mining industry by the current popular. A stark example of how local tions at Jabiluka are found throughfeeling is sidelined is shown by the \$6 out Australia, making Indigenous million given by the Federal govern- communities vulnerable to corporate The Australian Nuclear Science and ment to ANSTO to help it prepare its machinations of any kind, be they ura-Environmental Impact Statement ad-

Uranium mining

raw material for the most lethal indus- eymoon pilot uranium mines and are trial process known to humanity has ANSTO argues that the facility will come into prominence once again with provide training and expertise in nu- the push to develop the Jabiluka declear technology, a spinoff being the posit in Kakadu National Park. The ble by the fundamental human rights combination of clear and unequivocal abuse of dispossession: uranium mintion to the non-proliferation of nuclear Mirrar opposition, that Jabiluka is a ing is another manifestation and inuranium mine and that the develop-The proposed reactor will cost in ex- ment threatens the unique cultural and cess of \$500 million and it has been natural values which underpins World argued that the concentration of this Heritage Listing have helped to cataresource in one field of science is un- pult the issue into prominence.

The Jabiluka development was made nomic merit'.10 It is also made possible Our contribution to nuclear disarma- by layers of social, institutional and

The cultural and historical condinium miners or otherwise. The corporate impact of uranium mining on, for example, the Kokotha people and a recent manifestation of a continuous process of dispossession. The fact that Western Mining Company exercises a virtual fiefdom over Kokotha and Arabunna country is made possible by legislative measures such as the Roxby Downs Indenture Ratification Act, givthe Andyamathanya community who The fact that Australia supplies the are now host to the Beverley and Honlikely to be replicated among the Martu communities of Western Australia. All of these developments are made possistrument of this historical transgression. As environmentalists we must proceed from a recognition and analysis of this historical context, that the survival of Indigenous commu-



active contamination, but because of ness as a movement to support Indigsure to occur.

ships and working affiliations. The what may become an important social tively with Indigenous communities and the people whose country this is. are not just cultural, but more often revolve around the dire lack of re- Post election long-term support for communities to seat which will have real impacts upon part of the community. fight back. It is incumbent on Friends resources and access for non-governof the Earth to convince other environ- ment organisations.

fight against uranium mining that ing a strong voice in the Senate on the

nities with uranium on their land is understanding that our ability to end reduced parliamentary force. Their under threat not only because of radio- uranium mining rests on our willing- majority is based on a slim margin which is a ripe opportunity for the antithe historical and political exercise of enous rights to country. Indeed, this is nuclear campaign to exploit. It remains power which allows radioactive expo-the case for any environmental strug-our task to target communities in mar. gle. What we must avoid is that by ig- ginal seats and inform them of devel-There is nothing particularly new in noring this perspective we become part opments in the nuclear industry. Re these statements, Friends of the Earth of the problem, by not acknowledging encouraging and supporting local acrecognises and supports Indigenous and actively addressing the historical tivism we will be able to raise the prosovereignty, activists regularly travel context and its instrumentalities we file of the issue, and sensitise Members to country and meet with communities, risk acting disrespectfully towards In- of Parliament to the probability that some of us have long-standing friend- digenous people and disadvantaging the nuclear option is an electoral liability. In combination with other cambarriers to working closely and effec- alliance between environmentalists paign tactics this can play an important part in slowing approvals processes as key government decisionmakers become aware of the electoral sources to do so. Hopefully as activists The news is not all bad. The re-elec-disadvantages pro-development policome together to fight the expansion tion of the Coalition to government is cies will create. It also fulfils the onof uranium mining we can put in place a disadvantage but isn't a great sur- going need for environmental resources which are specifically allo- prise. Perhaps of greatest immediate organisations to maintain and extend cated for the purpose of facilitating significance in this arena is the loss of outreach and involvement, and raise face-to-face communication and ideally the West Australian Greens Senate their profile as a demonstrably active

International trends

wide. The nuclear power industry conthese resources should be made avail- issues of uranium mining, the nuclear tinues to decline, the option is widely able as a matter of the highest prior- industry and land rights. The fact re- regarded as too expensive and dangerity. We should promote the mains that the Coalition is a very much ous. In Germany, the newly formed coalition between the Greens and Social Democrats is based on the condition that the nuclear industry will be phased out, effective immediately. This has resulted in the cancellation of reprocessing contracts worth US\$1.4 billion with France and the United Kingdom. It also strengthens the likelihood of giving teeth to a European parliamentary resolution banning the import of uranium from sources which involve human rights abuses on Indigenous people. Both French and German nuclear utilities import uranium mined at Ranger in Kakadu and Roxby Downs in South Australia

The London-based Uranium Institute, a nuclear industry funded lobby group, announced that uranium prices will continue to decline for the foresee-





able future due to the surplus of fissile

materials from decommissioned nu-

clear weapons.11 This casts umbrage

ity of the uranium industry, which in

conjunction with campaigns targeting

shareholders and institutional inves-

tors, has real potential to halt the in-

dustry in its tracks. The news certainly

undercuts the 'bonanza' propaganda

emanating from the mining lobby of

late, and should give heart to those

activists who thought the fight was

over because mine infrastructure is

Now is as good a time as any for activists and organisational representatives

to come together with a view to shar-

ing information and mapping a com-

mon direction. At the very least the

forum should provide a real opportu-

nity to enhance communication be-

tween groups and affirm ways in which

we can compliment our strengths and

minimise weaknesses. It is our hope

that the forum will be a step towards

well resourced support of Indigenous

communities under the hammer from

uranium mining and add further mo-

mentum to growing anti-nuclear activ-

ism in Australia. See you there!

being developed or expanded.

Nuclear free Australia forum

- 1. Our Radioactive Waste: Managing it safely. Community Consultation information kit 1998. Dept Primary Industries and Energy.
- over the medium and long-term viabil- 2. See the Environmental Impact Statements for Olympic Dam Operation, Ranger and Jabiluka uranium mines.
 - 3. Opt cit.
 - 4. A radioactive waste repository for Australia. Site Selection Study-Phase 3 Regional Assessment. Bureau of Resource Sciences pp 4.
 - 5. Overview of Proposed Replacement Nuclear Research Reactor, Executive Summary DEIS by PPK Environment and Infrastructure 1998 pp 6.
- 6. A New Reactor? It's the worst possible option!, by R.D.(BoB) Walshe, OAM. Nuclear Study Group Sutherland Shire Environment Centre, 1998.
- 8. The New Reactor, National Interest and Nuclear Intrigues by Jean McSorley, MA,
- 9. Op cit.

7. Ibid.

- 10. Senator Robert Hill, Minister for the Environment in correspondence addressed to Friends of the Earth, Fitzroy,
- 11. Asian Wall Street Journal, Friday 11 September 1998.



Nuclear Free Australia Forum 5-6 December 1998 Melbourne

Contact: Sarojini Krishapillai Friends of the Earth, Fitzroy Telephone 03 9419 8700 Cost: Saturday & Sunday, \$18 concession, \$30 waged One day only: \$10 concession, \$20 waged Please register by 23 November 1998

When monetary logic doesn't make Sense Ricardo Navarro in A

Ricardo Navarro in Australia for the FoE International AGM

At the recent Working Group for Indigenous Populations at the United Nations, Melbourne-based aboriginal activist, Mick Dodson, commented that the most beneficial and upliffing aspect of the gathering was to be together with indigenous people from all over the world, united and exchanging ideas. The people wore different clothes, spoke in different languages or with different accents and their homes had different names. But the stories and the sufferings were the same. We were all part of a world community, spanning the planet. We had gathered there united.

Anna Burlow

he Friends of the Earth International (FoEI) AGM holds the same insights and presents the same opportunities for environmentalists around the world. With over 40 delegates representing 35 countries, predominantly from South and Central America, East and Western Europe and East Africa, the FoEI AGM is an important opportunity to consolidate, to exchange ideas on effective campaign actions, to discuss issues in a forum that provides a diversity of ideas and perceptions and ultimately to see that around the world we are all united in a company cause.

Although environmentalists have always been aware of the bigger picture, the importance of "globalising" our efforts and campaigns has become imperative. With the advent of transnational corporations, the proposed Multilateral Agreement on Investment and increased government cooperation, it is necessary for our local, national and international environmental campaigns and groups to link their efforts. The beauty of environmental globalisation is the consistent emphasis on the individual at the 'grass

If anything, FoEl can be a shining example to corporate and government entities that excluding the individual and community does not have to be a prerequisite of the globalisation movement.

However, Cam Walker, National Liaison Officer of FoE Australia, observes that gatherings such as the AGM are essential for Western environmental groups in understanding that, although there exists a common cause, the contexts in which other FoE groups fight in, often against the same transnational corporations, are very different. Essentially, Walker feels that groups like FoE Australia deal with the 'nice' side of corporations because they are bound by rules and regulations. Environmental groups in other countries predominantly deal with corporations which lack such control, and within political environments that deal harshly, often violently, with activists.

We are dealing with the same beast under radically different circumstances, Walker said. He argues that the more this imbalance is understood and addressed in campaigns internationally, the more pressure corporations will be under to ensure equitable relationships with FOE groups globally.

Ricardo Navarro was one of the many guests visiting Melbourne both for the Indigenous Conference and the AGM, both held in mid-November 1998. As a Goldman award winner for environmental work, Navarro heads the CESTA institute in El Salvador and his work is concerned primarily with ecological sustainability.

CESTA was founded in 1980, in the midst of the Salvadorean civil war. Its mandate is to carry out 'multi-faceted programs focusing on public education, political change and community development'. Navarro sees the FoEI AGM as 'essential' to CESTA's work

On the one hand it provides us with knowledge and expertise, on the other hand the environmental struggle in El Salvador sometimes needs international solidarity to discourage violent reactions that might occur in El Salvador, Navarro said.

Navarro considers the development of agreements such as the MAI as attempts to impose the logic of money, worldwide. He



argues that monetary logic is the most pervasive force against the environment and the community because of its 'egotistical, individualistic, opportunistic nature' and short-sighted reliance on tangible gains.

'Monetary logic contradicts the logic of nature and the result is inevitable crisis such as global warming,' he said.

El Salvador has not only been ravaged by monetary logic but also the effects of militarism, yet CESTA's programs have been a success, and eagerly embraced by the communities involved. It promotes alternative ways of achieving sustainability like the development of soya beans which provide an alternative food source and rejuvenate the soil. In Toluca beach, CESTA has devised a project to protect and rehabilitate four species of marine turtles by involving the local community which traditionally hunted the turtles and collected their eggs. CESTA's programs are successful because they are tailored very much towards a specific community and their needs. CESTA operates with the knowledge that '.. a dividing point in the search for sustainability can be local empowerment where communities can feel, each time, more the owners of their own destiny'

Navarro regards the focus on the community and the grass roots level as essential, yet he has successfully incorporated global involvement in the CESTA organisation.

With the British Columbia Sierra Club in Canada, CESTA has developed GAIA, a group which is predominantly concerned with establishing human and financial links with groups internationally. GAIA has enabled a vast amount of cooperation between El Salvador and Canada, including the creation of 'donation day' during which Canadian workers donated one day's salary for funding CESTA's Reconciliation Forest——a commemoration to the civil war and to future development of ecological sustainability. This cooperation is integral to CESTA's aim because it wishes to generate a

multiplier effect of activism by involving various facets of the community whether they be business, corporations or unions, and educate them to identify the link between their actions and the environment around them. Navarro wants to 'convert the ecological movement into a political force' by integrating ecological sustainability in to everyday life, the decisions we make and the people we support.

Ricardo Navarro spoke on global issues and sustainability at the FoEI AGM. Copies of his speech and other delegates speeches are available at the FoE Fitzroy Office.

FoE International Mission Statement

Friends of the Earth International is a worldwide federation of national environmental organisations. This federation aims to:

- Protect the earth against further deterioration and repair damage inflicted upon the environment by human activities and negligence.
- · Preserve the earth's ecological, cultural and ethnic diversity.
- Increase public participation and democratic decision-making.
 Greater democracy is both an end in itself and is vital to the protection of the environment and the sound management of natural resources.
- Achieve social, economic and political justice and equal access to resources and opportunities for men and women on the local, national, regional and international levels.
- Promote environmentally sustainable development on the local, national, regional and global levels.

Friends of the Earth International has a democratic structure with autonomous national groups which comply with the guidelines established by the federation. Friends of the Earth member groups are united by a common conviction that these aims require both strong grassroots activism and effective national and international campaigning and coordination. They see Friends of the Earth International as a unique and diverse forum to pursue international initiatives, taking advantage of the varied backgrounds and perspective's of its members. By sharing information, knowledge, skills and resources on both the bilateral and multilateral levels, Friends of the Earth groups support each other's development and strengthen their international campaigns.

The two faces of the Climate Change Briefing World Bank

Dr Frances Macguire

Parties. The details of the discussions were technical and complicated, but the to the future security of the planet. Failure to stop climate change will produce Bank. disastrous effects across the world.

around Carbon Trading, Sinks (natural resources such as forests), the fuel exploration, exploitation and use. Clean Development Mechanism estab-World Bank and a review of commitments of industrialised countries.

Friends of the Earth International was a major presence at the conference. Below are the World Bank briefings able energy paths. prepared for COP IV by Dr Frances Macguire of FoEI.

ment strategies.

'We must ensure that the policies and operations of the World Bank and other International Financial Institutions take full account of climate change'.

G8 Summit Communiqué 17 May 1998

'The Bank has not succeeded in systematically integrating global environmental objectives...nor has it taken meaningful action to reduce its traditional role as financier of fossil fuel power devel-

> Study of the Global Environment Facility's Overall Performance 2 March 1998

The world's rich industrialised nations are trying to avoid domestic action on cutting greenhouse gas nanced since 1992 (9.9 billion tonnes) the form of announcing new policies

Friends of the Earth International of particular concern. Discussions at the COP IV centred urges the bank to steadily disengage

The World Bank must create disinlished under the Kyoto agreement, the centives for fossil fuel use and stronger

sil fuels as well.1

avoid tough domestic action to cut tonnes of CO. emissions, preferring instead to trade emission credits. The rich nations want Section two to buy emission credits from other So the rich nations are trying to avoid in deals with developing countries.

At the same time the US, along with countries. the other G8 nations, is fuelling climate

crucial world climate summit emissions and are expecting to be will, over their lifetimes, be more than was held in Buenos Aires on bailed out through emission credits three times the output of greenhouse Monday 2 November 1998. The summit bought from other countries. At the gases from all OECD countries in 1995 is know as COP IV, the Conference of same time they are fuelling climate (2.7 billion tonnes of carbon). This is change by making fossil fuel use the hypocrisy. Regrettably, a similar story path of least resistance in these same can be told about other major G8 instiresults of the COP IV summit are vital countries via low-interest loans and tutions such as export credit agencies guarantees provided through the World and the other regional development banks. But the World Bank's record is

Research carried out by the Sustainfrom investments in conventional fossil able Energy and Economy Network and the International Trade Information Service established that nine tenths of World Bank fossil fuel investment ends incentives for energy efficiency and up enriching multi-national corporarenewable energy use to ensure that tions based in the G8 nations, such as developing countries are given the ca- Amoco, Chevron, Exxon and Mobil. pacity to pursue clean, safe and renew- These companies are leading lobbyists (through the Global Climate Coalition) In Kyoto, in December 1997, the in resisting official action on climate world's rich industrialised nations change, particularly in the US. Despite Dr Francis Macguire calls to the agreed to act to prevent dangerous cli-World Bank to account for its invest- mate change. Now, the world's richest such as China take on legal obligations nations are threatening to derail the to reduce climate changing pollution, Protocol unless poorer, developing one third of the World Bank's fossil fuel countries cut their consumption of fos- lending during the last year has been spent on coa- and diesel-fired power A number of countries, and in par- plants in China. The World Bank's ticular the United States, have been China portfolio for 1992-1998 will making these demands while trying to eventually emit at least two billion

countries such as Russia and the domestic action, and are expecting to Ukraine, as well as making use of the be bailed out through emission cred-Clean Development Mechanism (CDM) its bought from other countries while fuelling fossil fuel use in these same

Environmental criticism of the World change through the World Bank, which Bank's performance has been growing since the 1992 Rio Earth Summit has for 15 years, during which time its loan spent \$12.4 billion on gas, oil and coal portfolios have not improved by much projects in Russia and developing coun- Even the bank's official history actries. The greenhouse gas emissions knowledges that its response to enviproduced by World Bank projects fi-ronmental criticism often has taken



that are infrequently enforced.3 In fact, regular operations. the bank is even stepping back from its environmental policy commitments as it reduces its investments in environmental projects, weakening the role of its environmental department and downgrading certain environmental

policies to non-binding good practice.4

The World Bank is mandated to tackle poverty and promote sustainable development, yet many of its loans are ing, lighting). In many places, reneweral Solar Energy Research Institute. for projects that involve unsustainably managed natural resource extraction or pollution generating projects, such as coal-fired power plants or roads; in some cases, it opts for these more environmentally destructive projects while the private sector is financing more environmentally benign options. The structure and operations at the bank demonstrate that it is not interested in promoting truly sustainable development and a less carbon-intensive future.

Furthermore, because energy delivery on a per capita basis is not an explicit goal of the World Bank's energy strategy, those most in need of energy are the least likely to receive it. While the world's poorest people reap few of the benefits of fossil fuel projects, they are the ones who pay the highest prices in terms of resettlement, environmental degradation and police harassment. This is evidenced by several recent claims filed with the World Bank Instudy on Singrauli, India).5

There are legitimate concerns that ciency technologies. World Bank's financing of fossil fuel projects to the tune of millions of dollars per year is neither a prudent nor effective use of bank resources. The 1998 'Study of the GEF's Overall Performance', 2 March 1998 concluded

Bank for such projects (as conventional fossil fuel generation) is inconsistent with mainstreaming of the global environment in the bank's

able forms of energy are the most damaging, of the energy options in providing for their energy needs, even folios tell a different story.

The bank has drawn up six guiding offer to invest in another \$1 billion principles for energy investment.7 worth if the solar industry can lower These principles are outlined below:

Mainstream renewable energy policy in the energy and environment sector dialogues with client countries.

in the World Bank Group portfolio but only if the industry can pare a fithrough rigorous greenhouse gas ac- nal 20 percent off the cost. In just a counting at the investment level.

Integrate climate change externalities in the bank's Economic and Sector Work, and Country Assistance Strategies as appropriate.

Promote market transformation spection (see, for example, the case mechanisms to facilitate market entry of renewable energy and energy effi-

> Implement a strategic partnership with the Global Environment Facility to leverage expanded investment in renewable energy.

Kvoto, and Bank Board approval, as-'Continued financing by the World sist in the development of an efficient and equitable international carbon offsets market, and explore the potential challenge, the World Bank is focussing for carbon emissions abatement via its attention more on developing a carvoluntary contribution mechanisms.

Boost to renewables

One of the main roles of the World In order for the World Bank to 'main-Bank Group in the energy sector should stream renewables' an innovative rebe to support investment in more effi- newable energy investment program is cient, low-emitting energy systems needed which would reverse the curthat will prove of lasting value in the rent imbalance between the amount of environmentally-driven energy mar- money spent on fossil fuels compared kets of the 21st century. At least two to the amount spent on renewables. billion rural poor cannot meet even Such a model has been suggested by their basic energy needs (cooking, heat- Denis Hayes, former director of the fed-

'A \$5 billion World Bank program to promising, and least environmentally invest in solar cells could do for this technology what Defence Department procurement did for computer chips. leaving aside larger environmental The World Bank could offer to invest benefits. While the bank likes to focus in \$1 billion worth of solar cells at a on the rural poor rhetorically, its port- price 25 per cent below last year's average retail price. Next year, it should its price another 20 per cent. The following year, it should invest in another \$1 billion worth, but only if the industry shaves off an additional 20 per cent. In the final year of the program, the Identify climate friendly options bank should invest \$2 billion worth, few years, such a program would drive down the cost of solar cells to roughly one third of what they cost today. At that price, solar energy would be commercially viable for a significant number of new electrical applications worldwide, an annual market worth scores of billions of dollars.'

The World Bank, along with other Multilateral Development Banks (MDBs) as 'lenders of last resort', and as banks for 'reconstruction and development', are mandated to accept larger risks than commercial banks.9 This means that the MDBs are in a prime Subject to agreements reached in position to lead the way in developing renewables and promoting the transition to sustainable energy markets.

> Rather than rising to the renewables bon offsets market under Joint Imple-



The two faces of the World Bank

mentation and the Clean Development Mechanism (CDM). Diverting World Bank activities into the creation of such a market will not directly ensure greater energy supply to the world's poor and may not necessarily reduce greenhouse gas emissions. Friends of the Earth International believes that the World Bank should not be allowed to house or operate any part of the CDM's financial mechanism, given the large conflict of interests in its own portfolio.

CASE-STUDIES

Exxon-Shell Pipeline Project in Chad-Cameroon.10

The World Bank is deciding whether to grant US \$115 million in loans to secure the construction of a 650 mile (1,050 kilometre) pipeline in Chad and Cameroon, West Africa. A consortium of oil companies, led by Exxon, is financing the project and is made up of Exxon (40 per cent), Shell (40 per cent) and Elf Aquitaine (20 per cent). The estimated cost of the project is \$3.5 billion, which is 20 times the budget of Chad. With an expected production of 225,000 barrels of oil per day, and a 25 to 30 year lifetime, this will be the largest construction project in sub-Saharan Africa.

Exxon has said that World Bank's financial participation in the project is a pre-requisite for going forward. The World Bank's financial backing would enable the companies to attract investors, allow access to lower interest loans and raise the project budget

The proposed pipeline passes through, or close to, important ecological areas that are home to indigenous peoples and endangered species. The development of the pipeline will allow the distribution and consumption of 650 million barrels of crude oil, yet the environmental assessment prepared by Exxon does not include an assessment of potential greenhouse emissions associated with the project. Indeed the World Bank's environmental team, unfortunately a powerless group within the bureaucracy, has unanimously rejected the Environmental Impact Assessment as incomplete.

While Exxon claims that benefits for Chad and Cameroon will amount to \$8.5 billion and \$900 million respectively, there is no evidence that profits from the pipeline will be invested in projects aimed at sustainable development or poverty alleviation. The Exxon-Shell pipeline will divert World Bank money from much needed health, education and poverty alleviation projects.

Azerbaijan-Early Oil Development,11

The Azerbaijan International Operating Company. (AIOC) was established in 1994 to develop the Azeri, Chirag and Guneshli fields in the Caspian Sea. These fields hold an estimated 4.1 billion barrels of oil. Costs are estimated at

Investors, including BP (17.1 per cent), Amoco Corp (17. per cent), Exxon (eight per cent), Unocal (10 per cent). Amoco, Exxon, Unocal (US), Lukoil (Russia) and the Turkish Petroleum company, are seeking financing to the tune of £200 million from the World Bank through the International Finance Corporation (IFC). The Project involves refurbishment of an existing oil platform, construction of oil receiving terminals on the Caspian sea coast of Azerbaijan and on the Black Sea coast of Georgia and completion of two oil export pipelines. Production is expected to reach 105,000 barrels per day (bpd) by the year 2000. Environmental and social concerns include existing oil contamination of soil, surface water and ground water, oil spills, impacts on significant natural habitats and worker health and safety.

Singrauli, India.12

Residents of Singrauli, India filed a claim to the World Bank Inspection Panel on 2 May 1997 challenging a \$400 million bank loan to the National Thermal Power Corporation (NTPC), the bank's largest beneficiary in the world. According to the claimants, the World Bank has failed to adhere to its policies regarding involuntary resettlement, indigenous peoples, environmental assessment, participation, supervision, monitoring and consideration of economic activities. Many of the families have been resettled on multiple occasions, destroying their agricultural and subsistence lifestyles. Allegations of repression and human rights abuses have been levelled at the NTPC project.

The World Bank must reorient funding away from fossil fuels and towards renewables to ensure that developing countries such as India and China are given the capacity to pursue non-fossil fuel intensive energy paths.

In order to address the threat of climate change Friends of the Earth International urges the bank to steadily disengage from investments in conventional fossil fuel exploration, exploitation and use, and to set benchmarks for doing that.

BENCHMARKS¹³

be to bring clean energy services to the development by the corporations or approximately two billion poor people, mainly in rural areas, who presently lack them. During the next 10 years, the World Bank Group should:

Systematically shift its energy-related lending portfolios and operations towards environmentally sustainable investments, targeting energy efficiency, conservation, demand-side gram for its own energy projects. This management, co-generation and re- would induce much more sustainable 3. Devesh Kapur, J.P. and Lewis, R. W. (1997). newable energy as primary tools to energy development by incorporating achieve sustainable energy project the costs of environmental externalilending.

Restore a clear benchmark for in earlier drafts of the strategy paper. transition economies into carbon-1999 of its total energy portfolio for invest in: investments in alternative and renewable energy, demand side management and energy efficiency programs, with a subsequent increase of 10 per cent per year after 1999.

Calculate the full life cycle of greenhouse gas emissions associated with all its lending, not just from power plants, which amount to less than an estimated 10 per cent of energy-related emissions and potential emissions.

Take immediate steps to reduce portfolio carbon emissions by at least 10 per cent per year. The decline in carbon emissions should be reported in an annual global carbon emissions report, which calculates carbon emissions resulting from the bank's portfolio of all power, transport, forestry, and fossil

Shift the transport portfolio away from roads and highway construction to traffic demand management, road safety, rail, public transportation, and projects that benefit non-motorised transport users who are often the poor-

Include in all its contracts a le- References gally binding obligation to restore ar-An overarching policy goal should eas degraded by oil, gas and coal public entities that are responsible.

> d Develop an open, transparent process for reviewing energy elements of each country assistance strategy.

Shift the bank's role away from establishing a market for carbon credits.

Implement a carbon offset proties into bank lending.

To avoid fuelling climate change renewable energy lending that existed and locking developing countries and It should set a target of 20 per cent by intensive futures, the bank should not

> A infrastructure for, or extractive projects in, frontier or primary tropical, temperate or boreal forests. Extractive projects include both underground resources such as oil, gas and minerals and surface resources such as timber

B projects in, or impacting areas listed on, the United Nations list of National Parks and Protected Areas, or Nature Reserves/Wilderness Areas, National Parks or National Monuments or proposed nature sites

C projects that involuntarily resettle more than 500 people. According to its own assessment, the bank's record on successfully resettling affected communities is a failure.

1. The US Senate, in the Byrd-Hagel Resolution, has advised the President that developing countries in the Kyoto Protocol to limit greenhouse gas emissions as averting or exacerbating the problem of

2. Sustainable Energy and Economy Network Service (1997). The World Bank and the G-7: Still Changing the Earth's Climate for Business 1997-1998. Washington D.C. International Trade Information Service.

Washington, DC. Brookings Institution

and the International Trade Information Service (1997). Op cit.

5. http://www.igc.apc.org/ciel/wbip.html The World Bank Inspection Panel was created in 1993 to review complaints from affected parties in borrowing countries regarding alleged violations of the bank's operating

Global Environment Facility (1998). Study of the GEF's Overall Performance, 2 March 1998. http://www.gefweb.org/

Letter from Dr Robert T. Watson, Director Environment Department of the World Bank to Institute for Policy Studies, dated 2

8. Letter from Daphne Wysham, Institute for President World Bank, 6 April 1998.

9 http://www.geo.ut.ee/bankwatch/index.html

11. Sustainable Energy and Economy Network and the International Trade Information Service (1997), Op cit.

12. http://www.igc.apc.org/ciel/wbip.html 13. Based on a joint NGO letter to James Wolfensohn, President World Bank,





A sweet victory: Placer **Dome Quits Costa Rica**

The news is short and sweet: Placer Dome, one of the giants of the mining world, has been forced to leave Costa Rica. Those responsible for Placer ties located in Costa Rica's northern territory, the National Front Against Open Pit Gold Mining, AECO/FoE Costa Rica and Friends of the Earth

Since the beginning of this decade, swarmed into Costa Rica as part of a ingly strong opposition by affected pit gold mining has become one of the country's most controversial and

Increased awareness about the problems associated with open pit Open Pit Gold Mining, a coalition which brings together more than 60 religious, human rights, student and women's groups. Friends of the Earth has played an integral role in the development of this powerful grassroots coalition.

One of the most worrisome developments in Costa Rica has been the Las Crucitas project, developed by Canadian transnational Placer Dome, one of the four largest gold exploitation companies in the world. But on 5 May 1998, Placer Dome officials publicly announced their decision to abandon gold mining activities in Costa Rica's northern sons. Enthusiastic community and main reason for the company's

departure is the strong local, national and international resistance to the project.

Of course we should be aware that this significant victory represents just one battle in an ongoing struggle. The withdrawal of Placer Dome, far from being a definitive solution to the problem, leaves many unanswered questions. The future of the Las Crucitas project and the role of the Costa Rican government are unclear, as Placer Dome intends to assume the right to sell its concessions to other companies.

Junin resistance continues

The Junin people of Ecuador, the recipients of the 1997 FoEI Award are engaged in a struggle against two mining companies, Japan's Mitsubishi and Codelco of Chile. In May 1997, Junin community members occupied a local copper mining camp in an attempt to reclaim their homelands and livelihoods. This resulted in three campesinos being charged with sabotage, terrorism, robbery and destruction with maximum penalties of up to 16 years in prison. However, thanks to pressure from local populations and human rights and environmental groups, it appears that the case will be dismissed.

Mitsubishi is currently prepared to begin work, and on numerous occasions has threatened to militarise the area if opposition to the mining continues. But the Junin are standing steadfast by their pledge to protect their homelands and forests. They have rejected the economic benefits promised by the mining companies, preferring to maintain their selfsufficiency. Their exemplary resistance has catalysed a national debate on mining as well as significant international support and awareness.

LINK FoE Ecuador/ Accion Ecológica

A people mined: Marinduque island

In March of 1996, a tunnel leading from a converted tailings pit belonging to the Marinduque Copper Mining Corporation (Marcopper) leaked into the Boac river system of Marinduque Island. More than three million tonnes of waste were discharged, affecting over 20,000 people living in the 27 barangays (villages) dependent on the river for their agricultural, household and personal needs. The disaster focused international and national attention on the LINK FoE Costa Rica plight of the residents of this area, who have put up with Marcopper's irresponsible operations since the 1960s.

> The Marcopper fiasco triggered widespread concern over the social and ecological impacts of large-scale commercial mining operations, and prompted the government to review the implementation rules and regulations of the 1995 Philippine Mining Act so that 'a disaster of such proportions would not be repeated'. The mining industry was quick to mobilise its vast resources to counter public opinion against mining, extolling the virtues of the mining national development. Marcopper downplayed the incident as an unfortunate accident which should not overshadow the benefits they had provided for the island; electricity, employment and so forth. Placer Dome, the Canadian mining corporation which then owned 40 per cent of Marcopper, offered to go beyond its legal responsibilities in rehabilitating the river and compensating the damage suffered by the communities. The department of environment and natural resources promised to prosecute the erring company and its negligent officials expeditiously.

> More than two years after the disaster, however, the state of Marinduque remains virtually unchanged. The river that gave life to

the island's communities now runs full of mine tailings. The water that does manage to flow amid the waste is laced with toxins so potent that residents have reported skin irritations following mere contact. The river offers no relief from the current drought, which has been worsened by the El Niño phenomenon. The expected onslaught of the rainy season threatens to flood the residents from their lands. The bay near Boac town, located two hours from the spill area, has turned into a body of mud, and fisherfolk must go progressively further out to sea for

their daily catch.

Meanwhile, distribution of compensation to the residents has been insufficient and slow. The criminal cases filed against Marcopper officials for violating pollution laws and the national water code have been dismissed under questionable circumstances. Still pending are the cases against Marcopper for violating the mining act and for criminal negligence, both likely harder to establish than the previously dismissed cases. Placer Dome has since divested its shareholdings in the company and has become less active in rehabilitation and compensation efforts. Amid all of this, Marcopper is floating the idea of reopening its dangerous Boac mine

FoE Philippines questions.

Best practise mining in Norway?

'ABM is welcome', read a recent headline in local newspapers in Kirkenes, a small town in northern Norway. Inhabitants of this town were employed by the state-owned Syd-Varanger ASA company's mines and processing plants since 1906. In 1997, when the Norwegian government decided to rid itself of the nonprofitable company, the mine

was shut down. Several hundred workers lost their jobs, and the local FoE group began to identify the environmental legacy of over 90 years of mining and processing operations.

Soon afterwards, big news arrived: Australian Bulk Minerals (ABM) expressed interest in starting up mining operations again in 1999. The company presented a pilot study and organised a meeting to give residents the feeling of being involved, and also to counter criticism aired on television about the mine's environmental

Local environmentalists are concerned that ABM has not provided sufficient evidence that it will take environmental issues into account in its operations. Chairman Gordon Toll claims that best practice environmental management' will be used and that ABM will adhere to international standards. But what does this mean?

A previous agreement made by ABM concerning new mining operations in Tasmania secures its immunity from responsibility for past damages. Why is the company so keen to take over former mines? Does this make it easier to hide ongoing pollution? Will this project allow ABM better access to other resources in the region? Unfortunately, most Norwegians are too delighted with LINK André Ballesteros, the plan to follow up with these

Although we have no illusions





that ABM must proceed only after agreeing upon very clear environmental responsibilities.

> LINK Astrid Sween, FoE Kirkenes, Norway

Philippino farmers resist mining

When more than 99 per cent of residents have signified opposition to mining operations, does this not indicate social unacceptability? Not necessarily. The farmers of the Nueva Vizcaya region in the Philippines are learning that social acceptability, as defined by the government, is determined exclusively by bureaucrats and mining corporations.

In October of 1997, a referendum was held in eight barangays in Kasibu Valley, Nueva Vizcaya to determine whether the communities agreed to the continued operations of Dalton Pacific Resources, an Australian mining firm, in their area. A total of 2,133 residents voted against Dalton Pacific, while only 11 voted for the company.

The referendum was initiated by Kasibu Intertribal Response for Ecological Development (KIRED) in response to a challenge by local government officials to prove that the majority of local citizens were opposed to the mining operations.

KIRED, which in the local dialect means 'power', is led by Kasibu Valley barangay officials who have consistently expressed opposition to Dalton Pacific's mining activities.

Dalton Pacific has been exploring for gold in Kasibu Valley by way of mining claims which they acquired from the original owners, including the father of the municipal mayor. If the company's



prove feasible, extraction and development operations are expected to begin after the necessary clearances have been obtained.

The affected communities are composed of farmers, most of which migrant Ifugaos, Ibalois, and Kalingas who live from the cultiva-Dalton Pacific's operations threaten not only their lands and livelihoods. but also their health and their environment. Their lands border upon the site of another controversial mining project owned by the Australian Climax-ARIMCO. This mining company has been granted a Financial and Technical Assistance Agreement (FTAA), which permits exploration and mining rights to more than 32,000 hectares in the Didipio Valley in Nueva Vizcaya.

Realising that these giant mining operations will displace them from their communities and lands, native and migrant indigenous peoples have come together to express strong opposition in various creative ways. KIRED has lobbied local government officials, sent numerous petitions to the regional mines director and launched an education campaign on mining to consolidate popular opposition. Local NGOs, including human rights and church-based groups, have reservoirs of poison. supported these initiatives. The barangay councils have issued resolutions opposing Dalton Pacific as well as other mining applications. in the area.

Yet according to the Philippine government and the Dalton Pacific mining company, this resistance is no less than social acceptability.

Lignite digging poisoning the Rhineland

In the German Rhineland, local action groups are struggling to put an end to the opencast mining of lignite. Fifty villages and the homes of nearly 30,000 people were destroyed prior to 1985, and current plans will wipe out a further 18 villages over the next 50 years. Large areas of natural forest and marshes of high ecological value will be ruined. Furthermore, each tonne of mined lignite requires nearly 3,000 cubic feet of valuable groundwater to be pumped out.

Approximately 90 per cent of current lignite production is used to produce 30 per cent of total German electricity demand. However, due to the inefficiency of lignite-fired power stations, more than 60 per cent of the energy contained in the mineral escapes unused into the atmosphere. An energy policy directed at energy saving and renewables would, according to FoE Germany and other environmental groups, render lignite practically superfluous.

Although German law requires compensation for 'interventions in nature and countryside', the ecological value of the old landscape is forever lost to the lignite mines. In addition, the mines will ultimately be refilled with polluted slag, and Rhine water will seep in to fill the excavated lignite holes. These gigantic lakes, potent mixtures of contaminated mining wastes, will be true

Mining nightmare in Spain

Environmentalists' worst nightmare came true on 25 April 1998 when Spain was hit with the most cata-LINK André Ballesteros strophic ecological disaster in the FoE Philippines country's history. An accident at the Swedish Boliden corporation's mining site in Aznarcollar, Andalucia turned the Donana national park, Europe's most important wetland and biological reserve, into a virtual wasteland

The accident followed nearly seven years of protests and unresolved legal actions by environmental groups against Boliden's unmonitored open pit pyrite mining activities. The walls of a pyrite settling pond burst, discharging five million cubic metres of toxic mud into a nearly river which flows into the Guadiamar. Within a matter of hours, the Guadiamar, the national park's main water supply, had a pH level high enough to kill all living organisms in the river.

The following day, with the spill approaching the outer limits of the park, three barriers were erected to prevent the toxic mud from entering the heart of the park and to divert part of the spill along the Guadiamar towards the sea. The diverted waters, at this stage more diluted, entered Lucio del Cangrejo, an area of immense ecological value and a vital feeding ground for migratory birds. Fishermen from the town of San Lucar de Barrameda protested the diversion due to the potential effects on their fishing grounds to no avail.

As days passed, clearer reports about the extent of the disaster began to emerge. The spill is now estimated to be 60 kilometres long, extending from Aznarcollar to the barriers, and it has been ascertained that the toxic mud is composed of a LINK Dorothea Schubert rich cocktail which includes cad-FoE Germany and mium, nickel, magnesium, iron, Maria Hooghiemstra FoEI mercury and zinc. Between 2,000 and 5,000 hectares of farmland have been contaminated, and fields are covered with a 50-centimetre-thick layer of

> Measurements taken by environmental groups have shown that the main aquifer in the Donana national park has also been contaminated by

an unknown quantity of heavy netals. Authorities have energetically denied this claim due to their unwillingness to acknowledge the possibly greater extent of the disaster. Although impending autumn rains could have a devastating effect if the area is not cleaned up, the decontamination process is proceeding at a very slow pace. Accusations and denials appear daily in the newspapers, although neither the regional government nor the ministry of environment has admitted negligence.

Results of a 1993 inspection of the mine by the Andalucian environment. agency were never made public. However, a section of the report was leaked, and several bold local environmental groups exposed the poor structural conditions of the settling and waste ponds. Additional reports that several local chemical companies were dumping their industrial waste into the ponds, complaints filed by environmental groups, and accusations by a former Boliden employee about the dangerous state of the mine were all ignored by the company and the regional authorities.

The Donana disaster has highlighted the urgency of revising Spanish mining legislation, Negligence on the parts of the regional government and the national environment ministry in investigating the claims indicate that short-term economic gain still plays a much greater role than do environment and human safety issues. If Boliden's mining activities had been properly monitored, the Spanish taxpayer would never have had to pay for this great catastrophe, and the Donana national park would not be in such a vulnerable position.

LINK William M Caycedo

Teaming up against TVX Kasperske Hory is a tiny township in southwest Czech Republic, some 10

miles from the German border. Hidden between the hills of the Sumava mountains, it lies within one of the most valued, and most protected, nature areas in Central

Not surprisingly, Canadian company TVX Gold's exploration and mining project in Kasperske Hory has met with widespread opposition. Although the underground gold mine itself would not cause significant environmental harm, many problems would arise in relation to the resulting waste and especially connected to the tailings pond. Waste would be dumped into a valley within the nature park, resulting in the total destruction of this area. The high arsenic concentration of the waste deposits is another risk associated with the mine.

Opposition to the mine has united local communities, environmental groups, experts and environmental protection authorities as well as the general public and a number of prominent government and opposition politicians. To date, not a single politician in the Czech Republic has publicly supported the project.

TVX has hired the infamous public relations agency Burson-Marsteller in an attempt to change public attitudes and dissolve cohesion within the community. The joint TVX/Burson-Marsteller smear campaign has focused on the mayor of Kasperske Hory and the town council-both of which play crucial symbolic roles in the national opposition to the project and are legally empowered to prevent it. Admittedly, Burson-Marsteller has done its job quite well. Its unscrupulous campaign is full of dirty personal attacks and sophisticated and well-directed FoE Spain propaganda, and is combined with offers of financial support to the local people to supplement the promised economic gains from mining.

FoE Canada and FoE Czech Repub-



lic are running a joint campaign focused on providing information to TVX investors. Canadian media and international business and mining press have also been targeted in an attempt to highlight not only the project's environmental and social impacts but also associated financial risks due to the mine's uncertain future. In addition, FoE Czech Republic has been working together with local people in order to neutralise TVX/Burson-Marsteller public relations activities and is coordinating a national campaign against the

> LINK Voitech Kotecky FoE Czech Republic

Bug

Catching the Millenium

How the Year 2000 bug will affect the environment

ver the past few months, awareness of the potential impacts of the impending Year 2000 problem' or Millennium Bug has been rapidly increasing in business circles, with figures such as Maurice Newman, Head of the Sydney Stock Exchange, speaking out about the possibility of 'Y2K'-induced recession, a series of authoritative articles in The Economist and a regular column by John Macleay in the business features section of The Australian

The emerging consensus is that while the uncertainties are large, this is likely to be a far more serious problem than popularly believed. It is mented. This is an inventory probhigh time that the environment movement focused some attention on in the haystack' proportions. this issue, and particularly the threats posed to the environment from disruptions to computerised systems due to the year 2000 date recognition problem. These principally stem from possible pollution incidents resulting from the almost certain widespread failure of 'embedded systems' in automated industrial

A separate problem from the more well known difficulties of computer software recognising the turn of the century, malfunctioning embedded microprocessors controlling all manner of valves, pumps, sensors and other industrial applications have the potential to wreak havoc. For instance, major oil companies have publicly admitted they are likely to be able to fix only 30 per cent of embedded systems on their off shore drilling rigs. Refineries, factories, smelters, and all kinds of manufacturing plants are potentially at risk.

The problem is not that these embedded chips are difficult to replace, assuming (boldly) that the

company responsible for making them still exists, continues to support the product, has stocks available and suitably qualified technicians to install them. The difficulty is that there are enormous numbers of such systems (25-50+ billion in the United States alone) and conservative estimates indicate that just five per cent are date dependent, and these are generally very poorly doculem, of almost unimaginable 'needle

The cold hard fact is that most

Brent Hoare

have any real hope of addressing the issue in the time remaining. Although the Environment Protection Authority in New South Wales is aware of the issue at some level and has written to licensed premises to remind them of their liability for pollution incidents caused by year 2000 computer failure, little attention has been paid to the many thousands of smaller unlicensed premises. While again acknowledging important. the uncertainties about how the impact of the year 2000 problem will
Internet remains the best source of be felt, the range of potential impacts is vast, and many 'worse case' scenarios are gaining increasing levels of recognition from a wide range of sensible and authoritative

A proper recognition of the precautionary principle demands that the full spectrum of possibilities be brought to public attention and the appropriate response strategies be vigorously debated. Although space prohibits more than a cursory indica-

tion of some potential problems, it also needs to be recognised that there is significant doubt that critical infrastructure and utilities will pass the deadline without serious and prolonged disruptions. It is hard to do more than speculate about the potential consequences of failures in the telecommunications, power, water, sewage, transport, fuel supply or financial services sectors, but given the magnitude and scope of the possible implications it is imperative that the issues are faced.

With less than 14 months to go, contingency and disaster recovery planning need to receive the highest priority from all sectors of society. With danger comes opportunity and while the dangers are large, the year companies have started far too late to 2000 problem also presents many exciting opportunities to move towards a more sustainable, less technologically dependent economy. If there is a significant and prolonged disruption of information technologydependent systems, it is difficult to see how the high division of labour we currently enjoy will be maintained, and in the emergence of local economies supplying products to meet local needs may become very

> For the moment however, the information about the year 2000 problem, and an investment of just a few hours research into this issue is an extremely wise option (try your local library). Several sites offer a Y2Knews alert service, which is a great way to stay in touch with the latest developments and emerging trends. If you are aware of an Australian discussion list of Y2Kissues, or would like to join one, please contact the author: (+61)-(0)2-4782-6883 or burramys@hermes.net.au.

Who is investing in woodchipping Australia's forests?

Toodchipping is the highly de

Cashing in your woodchips

tructive arm of the timber industry. The timber industry across Australia is woodchip-driven with 90 per cent of harvested timber in places such as East Gippsland and Tasmania being woodchipped. The bulk of the woodchips coming out of Australian creets are exported, primarily to Japan, where they are converted into paper products. Woodchipping and timber harvesting in general, is highly damaging to the environment. Impacts on native wildlife, soils, waterways and a host of other issues can all be traced to the conversion of forest areas into woodchip farms'. Woodchipping of sawn timber quality timber has severely impacted on rural employment with job losses associated with mill closures, now becoming common place. Remarkably, rural communities, fuelled by the rhetoric of industry front groups still point the finger at conservationists as being the cause of the job losses, when the real culprits are the multinational companies and woodchip of the responsibility for these problems. from Indonesia. mills who basically have a 'cut and run'

investors timber companies would find it impossible to finance new industry developments. The timber industry also gains vast financial support of government agencies. It is a depressthrough government subsidies (National Forest Network has a list of over 20 timber industry subsidies). Without from the reality of their destruction the support of tax payers, woodchip and the pain and suffering that they Michael Deeley has been appointed companies would be left high and dry. wreaking on the earth. rationalisation, timber companies still bourne with financial assistance from tion Agency Board and is President of

woodchipping industry has coincided tralia's forests. This study has barely with the rise of superannuation funds. scratched the surface of the investment Increasingly, investors are targeting puzzle, but nevertheless is the first

Anthony Amis Friends of the Earth Fitzroy

workers to fuel the woodchip machine, Safety and Transport Accident insurance. It seems extremely strange that, although 80 per cent of the Australian public disagrees with export Australia's only fine paper woodchipping, these same people are manufacurer, logging 500,000 cubic helping fuel woodchipping investment meters of timber per year from the through their retirement nest eggs and Central Highlands, Strezleckis and motor vehicle registration et cetera. It could be said that very few Australians ing over 300,000 tonnes of woodchips in some form or other are not finan- from North Limited in Tasmania, cially assisting in the destruction of mainly for their photocopy paper, Reis connected to the 'woodchipping mon-Through their ignorance of environmental matters, they are fuelling for- North Limited All of the multinational companies est destruction from behind their desks on investors to survive. Without in capital cities around Australia and on the planet, sourcing approximately the world. Whole ecosystems are being destroyed at the whim of fund managers working with the full cooperation mania. North is also behind the push ing sign of the times that people who hold so much 'power' are so blinded

tely on government handouts to sur- FoE Fitzroy Forest Network has been Greening Australia. researching the major investors in six The rapid escalation of the major companies woodchipping Aus-

step in unravelling the confusions and distortions of the financial market.

The major woodchippers

Wesfarmers

along with seemingly innocuous funds Logging approximately 900,000 tonnes such as Occupational Health and Karri, Jarrah and Marri forests of Western Australia.

Amcor

Gippsland regions of Victoria and buysome of the most beautiful forest eco- flex. Amoor also own 50 per cent of systems on earth. Indeed, it could be Kimberly Clark Australia sourcing said that everyone in one form or other chips from the Otways and Central Highlands. Amcor have recently anster' and increasingly it is almost impossible to escape its clutches, in the destruction of the world's tropi-Investment managers must bare much cal rainforests by importing paper pulp

The largest hardwood woodchippers 2.6 million tonnes of hardwood and 200,000 tonnes of softwood from Tasto mine Uranium at Jabiluka in the Northern Territory, currently the site of a huge Aboriginal and green blockade. Interestingly, North's Chairman, In the past two months NFN-Mel- of the Victorian Environment Protec-

The second largest woodchippers in Australia, logging forests in Tasmania and Northern New South Wales,

Chain Reaction Summer 1998/99



per year of export woodchips.

Fletcher Challenge

which bought out Australian Newsprint Mills in 1997. Currently logging 500,000 tonnes of plantation and 'regrowth' forests around the Florentine Valley in Southern Tasmania, logging plantation pine in North Eastern Victoria and South Eastern NSW, as well as logging in New Zealand and old growth forests in Canada.

Logging vast radiata pine plantations in South Western Victoria and South Eastern South Australia. (CSR is currently suffered from a consumer boycott on their products due to their plans to site a toxic dump near the town of Werribee.) It has also experi-Arsenate at Mount Gambier and investigate the real power holders in Of note with the NAB is the fact that Dartmoor in the past two years which have seriously jeopardised water supplies to these towns. CSR uses mas- investors and could certainly do with- packaging companies. Those directors sive amounts of herbicides on out the attention of boycott campaigns being Mark Rayner, Sir Bruce Watson

Harris Daishowa

One hundred per cent owned by the formation from Japan. Harris million from woodchipping company in- from Southcorp. Daishowa sources almost one million tonnes of woodchips from South Eastern NSW and East Gippsland and has Westpac activists in Australia.

as Marbut-Gunnersen, Gunns, Hyne & Sons in Queensland and Calco in Victoria were only glanced at in this study.

the Gunnersen family, one of Austral- Executive Officer, Bob Joss, has been paigns in North America. ia's wealthiest families. Thorry estimated to be worth \$40 million). Gunnersen is, among other things, President of the National Association ANZ of Forest Industries and is Chairman The Australia and New Zealand Bank boycott campaigns targeting them-

tre in Portland, Oregon. He is also a Director of Midways woodchip mill (which exports more than 400,000 New Zealand based multinational tonnes per annum) as is his brother Peter, who plays an active role in both NAFI and the Victorian Association of Forest Industries, both large importers of rainforest timber. Gunns in Taswoodchips.

The investors

top of the investor list. Banks hide their investors' identity behind a smokescreen of nominee shareholders. Nominee shareholders are people in pear that American firms are 'eyeing whose name shares are registered but who are only a nominee or trustee for the beneficial shareholder, so concealing the latter's identity.

amounting to over 1.5 million tonnes of the Board of the World Forestry Cen- is the second largest of the bank investors, with about \$1.3 billion tied up in the companies concerned. Interestingly, in a letter dated 13 August 1998 from Judith Swan, ANZ National Manager Customer Liaison, Ms Swan claims 'Our subsidiary, ANZ Nominees, provides custodial services (and therefore appears as the registered mania exports 400,000 tonnes of holder) for offshore fund managers investing in the Australian market'. One wonders just who these overseas fund managers are. Prudential Insurance Company of America for instance is Not surprisingly, banks dominate the attempting to start a consortium with Australian superannuation fund managers in the purchasing of Victorian Plantation Corporation. It would apoff' Australian forests.

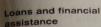
National Australia Bank

The National Australia Bank ranks This makes it almost impossible to third, with just over \$1 billion invested. certain companies. Nevertheless, the no less than eight of their directors are banks are working on behalf of these also directors of woodchip, paper or targeting them. Custodian Nominee and Peter Cottrell (Chairman of Boral) companies are paid an administration from Boral; Brian Loton and David fee to look after these assets. We un- Allen from Amcor; Michael Deeley derstand that the fee is something like Chairman of North, David McFarlane Japanese 'sogo shosa' Itochu, was not 0.5 per cent, possibly meaning that Chairman of Spicers Paper (42 per cent researched due to lack of relevant in- Westpac is getting something like \$10 owned by Amcor) and Graham Kraehe

The Commonwealth Bank

The Commonwealth Bank ranks about long been a huge problem for forest Of the banks, Westpac heads the list 17th with investments of about \$235 with almost \$2 billion tied up in six of million. Also of interest is the influx of Large domestic woodchippers such the companies studied. Westpac Cus- North American Banks such as the todian Nominees, which comes under United State's two largest banks-Westpac Financial Services, head the Citicorp (\$246 million) and Chase Manshareholders for Amcor, North, Boral hattan (\$987 million). These banks Marbut-Gunnerson is controlled by and CSR. (Incidently Westpac Chief could be pressured by activist cam-

> Nevertheless, the banks are working on behalf of these investors and could certainly do without the attention of



It should also be noted that the banks provide financial assistance and loans to smaller woodchipping companies. For instance ANZ Bank has assisted: Calco in logging the Otways, Midways (Victoria's only woodchip mill), TJ Andrews and Hallmark Oakes (each chipping about 800,000 cubic metres of timber from East Gippsland), Gunns in logging Northern Tasmania, Thomas P Clark in logging Tasmania and the Strezlecki's in Victoria.

The NAB has assisted: Misal Technology and Brunts Logging (both chipping enormous amounts from East Gippsland), Boral, ANM, Victree in clearfelling the Otways for plantations. Hyne & Son logging South East Queensland.

Westpac has invested in Hallmark Oakes and Brunts Logging.

The Commonwealth Bank has provided assistance to Harris Daishowa and TJ Andrews. Andrews has also had help from Esanda Finance, Caterpillar and Harris Daishowa.

Superannuation

Another major player with investment in woodchipping is the use of workers' superannuation. It is crucial that conservationists start to target these maor superannuation funds. In a letter ated 8 October 1998, from Westpac Chairman John Uhrig to Native Forest Network, Mr Uhrig claims that 'A good deal of the securities held by Westpac Custodian Nominees are the superannuation investments of many Australians. As you know, the policies of successive governments encourage Australians to save for their retirement through corporate, industry and public superannuation funds, and these funds invest in a wide range of assets including Australian shares. A large number of these funds seek the security of a bank-owned custodian to hold the physical assets of the fund, for the

protection of the fund members'.

very little say in where their superan- CSR 142,771, Westpac 137,728 and nuation is directed. It would be ex- Amcor 124,934. It is crucial that green tremely useful to broaden our alliances groups embark on a strategy that takes to key unions that are perhaps unwit- investors away from the environmentingly having their workers invest in tally irresponsible to those that are ensuch environmentally destructive com- vironmentally responsible. Through panies. Many of the investors listed the efforts of our campaigning, consumrely on superannuation funds to keep ers must not only steer away from them afloat. For instance, Queensland brand names that are bad (such as Investment Corporation deals with su- Reflex copy paper) but investors must Queensland. SAS Trustee Corporation that brand name too. A successful boyand Port of Melbourne Authority staff. It would appear from looking at their siderations are non-existent. If they were then they certainly would not be investing in North Limited.

Accident Commission and Victorian Workcover is managed by Victorian Funds Management Corporation, Boral, CSR, Fletcher Challenge, which uses the National Australia Bank as its Master Custodian, North Limited must be very pleased with this outcome, with its Chairman is also sitting on the board of the NAB. How many Victorian motor owners realise that North Limited is benefiting from their Transport Accident Insurance?

Personal investment

Australians have tripled their ownership of shares in the past 10 years. Perhaps as many as one in five Australians directly own company shares, with these holdings representing about one third of the market itself. Many people invest in woodchipping companies and banks that in turn invest in woodchipping companies. For instance, top 20 shareholder.

in 1997 the Commonwealth Bank had Workers at the present time have 275,204 shareholders, Boral 153,597, perannuation from public service em- be made to question investing in the ployees and building workers in companies that are associated with does the same for public servants in cott campaign could scare potential in-New South Wales, the major workers vestors away from a company because represented being teachers. Victorian of fears of inadequate rates of return Superannuation Board manages the and bad investor publicity. If the comsuperannuation for many public serv- pany is doing the wrong thing then it ants in Victoria including teachers, is our job to pressure investors to keep transport workers, Melbourne Water away, to press the warning button so

to speak. It is crucial that conservationists investments that environmental con-start to target these major superannuation funds.

The 36 major investors Money sourced from the Transport in woodchip companies in 1997

The companies investigated: Amcor, North Limited, Wesfarmers.

Explanation of valuations

Please note that the following figures are rough estimations of the total amount of money invested in each company. Very basically this list was formed from the top 20 shareholders of each company with the share price at the writing of the annual report multiplied by the number of shares held. The company name and the approximate amount of money invested in the six companies investigated is written in bold. The second line gives further breakdown showing the amount of the investment, the corresponding number indicates that companies position as a

Cashing in your woodchips

For example: Westpac Custodian Nominees, \$1.934 billionAmcor 1 (\$515m) et cetera, means that Westpac Wesfarmers 1 (\$1.587 m). Note that in Amcor. The numeral 'l' following Gresham Partners, investment bank- (\$61m), Boral 7 (\$61m), CSR 5 Amcor indicates that it is the largest ers) shareholder.

Share value of the companies at the time of their 1997 annual report: WESFARMERS (\$13.25), AMCOR m), Boral 2 (\$243 m), Wesfarmers 11 (\$8.30), NORTHS (\$4.70), BORAL (\$20 m), CSR 2 (\$407 m) (\$4.0), CSR (\$4.75), FC. *(Fletcher Challenge shares are divided into four categories. Energy \$4.92, Building \$2.83, Forests \$1.60, Paper \$2.83. Energy was not included in this break- (\$231 m), Boral 4 (\$220 m), 8 (\$24 m), CSR 7 and 13 (\$120 m), down).

1. NZ Central Securities Depositary: \$2.6 billion

Fletcher Challenge invests\$2.6 billion in building, paper and forests. The company is involved only with Fletcher Challenge.

NZCSD is a nominee company owned Fletcher Challenge 11 (\$20 m) by the 'Austraclear' clearing system operated by the Reserve Bank of New Zealand. Austraclear is a means for companies (such as banks, insurance regularly buying and selling them, to avoid certain formalities for example own and control the shares.

2. Westpac Bank: \$1.934 mFletcher Challenge 17 (\$12 m) billion

Westpac Custodian Nominees invests \$1.906 billionAmcor 1 (\$515m), North 1 (\$420 m), Boral 1 (\$347 m), Wesfarmers 3 (\$67 m), CSR 1 (\$533 m), Amcor 8 (\$101 m), North 8 (\$58 m), (\$37 m)Permanent Nominees (Aust) Fletcher Challenge 10 (\$24 m)Westpac Life Insurance Services Limited in- CSR 6 (\$116 m), Fletcher Challenge 4 vests \$28 million. Boral 19 (\$28 m)

3. WFCL Investments Pty Ltd: \$1.587 billion

Custodian Nominees invests \$1.934 Ultimate Holding Company Westralain lie Service Employees in NSW — Trusbillion in the six companies investi- Farmers Co-op Ltd run by five direcgated. Further, it invests \$515 million tors of Wesfarmers is also linked to

4. ANZ Nominees Ltd: Fletcher Challenge 5 (\$55m) \$1.267 billion

Amcor 2 (\$305 m), North 2 (\$292

Ltd: \$1.048 billion

Wesfarmers 5 ($\$41 \, m$), CSR 3 ($\$283 \, m$), Fletcher Challenge 7 ($\$39 \, m$) Fletcher Challenge 6 (\$49 m)

6. CHASE MANHATTAN Nominees: \$987 million

Amcor 4 (\$198 m), North 4 port) Amcor (\$299 m) (\$230 m), Boral 3 (\$232 m), Wesfarmers 6 (\$28 m), CSR 4 (\$279 m).

companies, et cetera) that own shares Ltd invests \$315 millionAmcor 9 (\$95 lenge 20 (\$8 m) in many different companies and are m), North 5 (\$99 m), Boral 11 (\$45 m), CSR 10 & 11 (\$76 m), Fletcher Challenge 13 (\$15 m)Perpetual Trustees delivering and registering all the share Aust Ltd: \$84 millionNorth 16 (\$26m). certificates and other documentation. Boral 16 (\$31 m), CSR 17 (\$27 m) Per- Amcor 19 (\$40.7 m), North 6 (\$85 m), Instead, the shares are held for trust petual Trustee Co Ltd: \$75 million Boral 9 (\$54 m), Wesfarmers 10 (\$21 by the NZCSD. The banks still legally (Subsidiary of Perpetual Trustees m), CSR 9 (\$48 m), Fletcher Challenge Australia)Amcor 17 (\$45m), Boral 17 12 (\$17 m) (\$30 m)Perpetual Trustees Vic Ltd: \$12

8. AUSTRALIAN MUTUAL PROVIDENT Society: \$487 million

Boral 6 (\$78 m), Wesfarmers 2 (\$68 m), Ltd: \$59 million (Subsidiary of

9. SAS Trustee Corp: \$452 million

(State Superannuation for Pub-Grenfell)Amcor 10 (\$81m), North 7

10. QUEENSLAND IN-VESTMENT CORPORA-TION: \$438 million

QIC is the State Superannuation for 5. NATIONAL Nominees Public Service Employees in QueenslandAmcor 6 (\$127 m), North Amcor 3 (\$224 m), North 3 9 (\$44 m), Boral 5 (\$84 m), Wesfarmers

11. BANKERS TRUST Australia Ltd: \$299 million

(see 1997 Amcor Annual Re-

12. PENDAL Nominees Pty Ltd: \$291 million (Bankers Trust connection)

7. PERPETUAL Trustees Amcor 5 (\$157 m), North 10 (\$35 m), Australia Ltd: \$501 million Boral 10 (\$51 m), CSR 15 (\$31 m), Perpetual Trustees Nominees Wesfarmers 18 (\$9 m), Fletcher Chal-

13. MLC Limited: \$266 million (Owned by Lend Lease Corporation)

14. PERMANENT TRUS-TEE Company Ltd: \$258 million

Permanent Trustee Co Ltd: \$156 million, Amcor 7 (\$119 m), Boral 13 Permanent Trustee Co Pty Ltd)North 13 (\$27 m), Boral 15 (\$32 m)Permanent Trustee Aust Ltd: \$43

million (Subsidiary of Permanent Prustee Co Ltd)North 14 (\$27 m). Wesfarmers 13 (\$16 m)

15. CITICORP Nominees Pty Ltd: \$246 million

Amcor 11 (\$81 m), North 11 (\$31 Boral 8 (\$54 m), Wesfarmers 17 (\$13 m), CSR 12 (\$34 m), Fletcher Fletcher Challenge 3 (\$125 m) Challenge 8 (\$33m)

16. FLETCHER CHAL-LENGE Employee Share million

Fletcher Challenge 2 (\$238 m)

17. COMMONWEALTH BANK: \$235 million Commonwealth Custodial Serv-

ices Ltd: \$99 million. (Parent Commonwealth Bank)Amcor 14 (\$65 m), CSR 14 (\$34 m), Wesfarmers 9 (\$22 m), Fletcher Challenge 14 (\$13 m)Commonwealth Life Ltd: \$44 million lenge 15 (\$12 m) Subsidiary of the Commonwealth Bank) Wesfarmers 15 (\$8 m), CSR 20 (\$21 m), Wesfarmers 16 (\$15 m)CBA Nominees Ltd: \$23 millionNorth 18 (\$23 m)The Commonwealth Superannuation Board of Trustees: \$28 million North 12 (\$28 m)Commonwealth Superannuation Board of Trustees No 2: \$15.9 millionWesfarmers 14 (\$15.9 m)Commonwealth Super Board: \$12.2 millionFletcher Challenge 16 (\$12.2 m)

18. MAPLE-BROWN **ABBOTT Limited: \$170** million

(see North Ltd Annual Report) North (\$170 m)

AUSTRALIAN FOUNDATION INVEST- Challenge 19 (\$9 m) MENT Co Ltd: \$151 million

Amcor 12 (\$76 m), Boral 18 (\$28 m), Wesfarmers 12 (\$17 m), CSR 19 (\$30 m)

20. NRMA Investments Ltd: \$138 million

(\$44 m), Wesfarmers 7 (\$25 m)

21. FLETCHER CHAL-LENGE employee unit trust: \$125 million

22. HKBA Nominees Ltd: \$106 million Amcor 16 (\$46 m), CSR 8 (\$50

Purchase Schemes: \$238 m), Fletcher Challenge 18 (\$10 m)

23. National Mutual Life Association Of Australasia Ltd: \$72 million

Amcor 18 (\$43 m), CSR 16 (\$29 m)

24. Prudential Corporation Australia Ltd: \$58 million

Amcor 15 (\$46 m), Fletcher Chal-

25. GIO Personal Investment Services Ltd: \$57 million

Amcor 20 (\$31 m), Boral 20 (\$26 m)

26. Bond Street Australia Limited: \$36 million

Boral 14. (\$36 m)

27. Victorian Superannuation Board Ltd: \$33 million (Teachers Superannuation in Victoria)

North 17(\$24 m) Wesfarmers 20

28. Vic Workcover Authority Limited: \$31 million North 20 (\$22 m), Fletcher

29. Transport Accident Commission: \$27 million North 15 (27 m)

30. Citibank Nominees NZ Ltd (TENZ): \$26.6m Amcor 13 (\$69 m), Boral 12 Fletcher Challenge 9 (\$26.6 m)

31. Zurich Australian Life Insurance Limited: \$25 million CSR 18 (\$25 m)

32. The Colonial Mutual Life Assurance Society Ltd: \$22 million North 19 (\$22 m)

33. Wesfarmers Superannuation Pty Ltd: \$15

million Wesfarmers 15 (\$15 m)

34. Cotswold Investments Pty Ltd: \$8.9 mil-

Wesfarmers 19 (\$8.9 m)

35. Suncorp Insurance and Finance: \$6.5 mil-

Wesfarmers 18 (\$6.5 m)

36. Warbont Nominees Ptv Ltd: \$5.5 million

Wesfarmers 19 (\$5.5 m)

Preventing wetlands becoming wastelands

At the January 1998 Annual General Meeting of Friends of the Earth Australia it was decided that the wetlands campaign would no longer be a national campaign and that instead I would continue as a national wetlands spokesperson. Wetlands issues have been a part of many FoE campaigns though they have been the focus of only a few. For example Jabiluka, as FoE people would be well aware, has an anti-nuclear focus, but it is also a wetlands issue because of the effects uranium mining will have on the World Heritage and Ramsar listed wetlands of the familiar with Ramsar, it is an international convention for the conservation of wetlands of significance. It was origiple: nally established to promote protection and management of wetlands that were significant as waterbird habitat but has since expanded its terms of reference to include factors such as ecological significance for other fauna

FoE Australia: specific wetlands campaigns

and flora and biogeographical impor-

FoE Australia indirectly through campaign networks such as the anti-nuclear and arid lands collectives, and directly through the advocacy work of individuals such as Kari Giles, Cam Walker and myself are currently inFoE Australia

volved in campaigns aimed at address-

Lack of specific Ramsar manage-

Lack of political will to nominate significant sites to Ramsar, in particular where there is industry resistance to nominations.

Kakadu National Park. For those not late activities of industries that impact Area, Innamincka Regional Reserve,

- 1. over-grazing pressures in the potential irrigation threats)
- 2. oils and gas exploration and mining in the Coongie Lakes region
- due to groundwater removal to sup-
- organisations

5. lack of industry accountability Area due to inappropriate develop- Ramsar Management Plan.

ments which are opposed by the Indigenous Traditional Owners.

Uranium mining in Kakadu National Park which is World Heritage and Ramsar listed, and is opposed by the Indigenous Traditional Owners.

The need for greater consultation with scientific stakeholders, conservament plans for many Ramsar sites in tion NGOs and Indigenous people in management processes.

Lake Eyre Basin

The important wetlands associated with this central Australian region are: Reluctance of governments to regu- Cooper Creek, Coongie Lakes Ramsar Lake Eyre National Park, Mound Lake Eyre Basin issues. For exam- Springs and Goyder Lagoon on the Diamantina River.

FoE Australia has a long history of Coongie Lakes Ramsar Area (and involvement with the Lake Eyre Basin having campaigned on various issues for approximately 15 years. We have been, and continue to be, active 3. degradation of mound springs in catchment management processes, lobbying for World Heritage nominaport the Roxby Downs uranium tion for sections of the basin, joint mine run by Western Mining Com- campaigning with Arabunna people for the protection of Mound Springs 4. lack of community consultation and groundwater resources, protecparticularly with Indigenous groups tion of natural and cultural heritage and conservation non-government and Ramsar issues in the basin. Currently we are one of a group of conservation NGOs involved in the Degradation of the Coorong Ramsar preparation of a Coongie Lakes





Coorong Ramsar area

the Coorong is a large estuarine system at the mouth of Australia's largest river, the Murray River. It is an important waterbird breeding and eeding area with many migratory species, some from as far away as Siberia and central Asia. We have been active in supporting the aspiration of the Nearrindjerri people in their opposition to inappropriate developments inside the Coorong Ramsar area.

Kakadu

Making submissions to government environmental assessment processes. Liaison and networking with other member organisations of the Jabiluka Alliance, a national-based campaign alliance led by the Mirrar people, traditional owners of Jabiluka country. Initiation of liaison with international environment organisations to coordinate international support actions, lobbying of European parliament and other national parliaments, targeting of nuclear corporations and utilities which source Kakadu uranium. Initiation of national and international cor- sources but the greatest of hearts, ofporate campaigns aimed to sway ten against imposing odds. shareholders and other investors in the principle corporations involved. A nonlent direct action blockade of the Jabiluka mine development for eight months, to recommence during the 1999 dry season. On-going direct actions at corporate headquarters and grass roots campaigning.

Long-term commitment

Wetland campaigns mean long-term commitments. FoE Australia has been involved in promoting a World Heritage nomination for parts of the South Australian section of the Lake Eyre Basin for more than 10 years. Given the reluctance of current governments to nominate the wetlands, due to a massive lobbying campaign by agribusiness and large mining inter-

ests, it is unlikely we will see a nomi- Coongie Lakes, the provision of Fedinvolves close liaison with the Mirrar people and working within the national Jabiluka Alliance.

Many wetland issues affect Indigenous Australians and FoE Australia's commitment to supporting the aspirations and rights of Indigenous people is for the long term.

Achievements

Campaigning cannot succeed without networking with other conservation NGOs and I want to acknowledge the excellent working relationship we have with other conservation groups and individuals. I also want to acknowledge the excellent work done by the Mirrar, Ngarrindjerri and Arabunna people who work with the minimum of re-

Lake Evre Basin

Working with local pastoralists we helped to prevent cotton development upstream of the Coongie Lakes Ramsar

We were successful in promoting the development of a catchment management processes for the Cooper Creek and hopefully something similar will occur for the Diamantina River.

raised the profile of the need for greater natural and cultural heritage protection in the basin and as a result there has been increased government commitment to protect sensitive areas. Some examples are the provision of funding to fence off and create grazing exclusion zones around some important mound springs and some parts of the

nation for at least another 10 years. In eral Government funds to development Kakadu, FoE Australia has directed its a Ramsar Management Plan for the campaign efforts towards preventing Coongie Lakes Ramsar Area and, there the opening of the uranium mine at are commitments by governments to Jabiluka and the phase out of the involve Indigenous groups and conser-Ranger uranium mine 22 km south. vation NGOs in the Ramsar manage-The campaign is 'for the duration' and ment process for the Coongie Lakes Ramsar Area.

Coorong Ramsar Area

We helped get commitments from State and Federal governments to involve Indigenous groups and conservation NGOs in the Ramsar management process for the Coorong Ramsar Area.

The campaign has successfully engaged

Kakadu

the mine development process at every stage. FoE Australia has made strong submissions during the environmental assessment phase which influenced Environment Australia's (Commonwealth environment department) finding that the proposal was 'seriously deficient'. A national campaign including broad-based community support and activism focused on a blockade of the mine development has raised the issue profile to national and international levels. A massive lobbying campaign supported by the FoE Fitzroy Anti-Nuclear Collective and John Hallam, of FoE Sydney, may result in Kakadu being placed on the World Heritage In Danger list which would be a massive embarrassment for the Federal Government and a very useful aid in the campaign to stop Jabiluka.

Despite the re-election of the pro-Through advocacy work, we have development Coalition to government there is strong opposition to the mine which continues to grow.

FoE Australia and the Ramsar Convention

Ramsar has been where I, as a FoE Australia spokesperson, have been most active. By the way, Ramsar is not an acronym it is the name of the town





in Iran where in 1971 inter-governmen- not listed as Ramsar sites. This makes of these sites we fight to protect. tal representatives first met to sign the the Convention a very useful tool for ing the world's important wetlands. This convention was thereafter known as the Ramsar Convention.

Wetlands are a major focus of Friends of the Earth International which has a wetlands campaign coordinated out of Spain. FoE International, through William Caycedo of plan processes and involvement of com-FoE Spain and Melissa Marin Cabrera of AECO, Friends of the Earth Costa Rica, are hosting the Non sion on the mechanism that would pro-Government Organisations Pre-Conference meeting. It will convene at the government and industry to the com- on 0417 468 054 or via FoE Fitzroy. If 7th meeting of the Ramsar Conven- munity and especially to Indigenous there is enough interest it may be postion of Wetlands Contracting Parties groups and conservation NGOs sectors sible to resurrect the national cam-(COP 7) to take place in Costa Rica of community. in May 1999. I am hoping to attend that meeting to present the Australian position in regard to Ramsar, a campaign-where to position, I add, that will have a dis- now? tinctly FoE perspective.

Under the Ramsar Convention there is a Federal Government obligation to protect important wetlands, even those

environmental activists and advocates in attempting to achieve better man- against dams and for rivers to be held agement of wetlands.

FoE Australia would like to see discus- they want, mote greater accountability of volved, contact me (Stephen Barker)

FoE wetlands

As I said at the beginning of this article, there is not a national FoE Australia wetlands campaign, but we do work on wetlands, some of us more

directly than others. There is plenty to do even if we do not have a national campaign. What needs to be done ranges from grassroots activism on FoE campaigns such as that aimed at stopping Jabiluka through to writing Impact Studies submissions. Sometimes there are specific projects, for example FoE people have in the past been involved in flora and fauna studies of mound springs and floodplains associated with the Lake Eyre Basin. There are Ramsar and catchment management plans that we can have input to. We need people to work on positions and policies that we can use domestically or take to international forums like the Ramsar meeting that will be held in Costa Rica next year. There is the never ending need for people that can lobby politicians and there is even the possibility for FoE to get involved in ecotourism to some One thing to think about is the sec-

ond annual international day of action on 14 March 1999. This day of action From our experience in Australia, is organised by the International Rivgovernments are failing in their com- ers Network, which is an affiliate of mitment to requirements under the FoE International. By the way al-Ramsar Convention particularly in re- though the title suggests very specific gard to new nominations, management actions in regard to dams and rivers, munity in management. At Costa Rica, include any wetlands-oriented actions

paign at next year's FoE Australia AGM in January.



Meeting of the minds

Progress in the Cape York Regional Agreement

From the burning embers of Howard's respicable Native Title legislation is a ray of hope for reconciliation in regional Australia. To the credit of the Native Title Working Group in Canherra, one of the few positives to come the native title debate. out of the Howard legislation, is the apparity for Regional Agreements to be ment, led by the Cairns and Far North of resolving land tenure issues in the

by Howard, in the lead up to the 1996 Federal election towards the implementation of the Cape York Land Use Heads ing frittered away in \$40 million worth of Agreement (struck between the conservation movement, the Cape York Land Council and Aboriginal and Torres Strait Islander Commission and the Cattlemen's Union) along with the completion of the Cape York Peninsula Land Use Strategy (CYPLUS), the Cape will be the first 'cab off the rank' with a Re- to Australia that Regional Agreements, ers. Indeed, given Howard's native gional Agreement in Australia.

provides certainty for pastoralists from access rights to Indigenous communities and the protection of natural and cultural values has been a long time coming, and has had to withstand de-

The previous Borbidge National/Liberal Coalition launched and mainfought campaign to undermine the goodwill of stakeholders who had struck the Heads of Agreement.

United Graziers Association and right wing elements of the pastoral conservationists. industry which has been pushing for blanket extinguishment of native ti- introduce Native Title legislation the FoE contact for Far North Queenstle over pastoral leases throughout which will support and facilitate the land.

Gavan McFadzean

struck between stakeholders in re- Environment Centre and the Wilder- Cape. This includes as a priority, the With the \$40 million commitment by two-year campaign to prevent the Com- ral and cultural values of Cape York the Keating government, and matched monwealth's \$40 million commitment at a regional, national (National Esto the Cape being diverted away from tate) and international (World Herita Regional Agreement outcome, to be- age) level. of Landcare, through the Natural Hering a major World Heritage outcome itage Trust.

Beattie government, has come a threeyear window of opportunity to install values are shown to be outstanding. a Regional Agreement in Cape York, These large protected areas would be which could provide a living example jointly managed with traditional ownrather than extinguishment of native title legislation, a World Heritage The prospect of an outcome which title rights, are not only achievable, but outcome may be the only avenue open are the rational, and mutually prefer- to traditional owners to reclaim large native title claims, while providing for able, alternative to long, expensive tracts of land under Aboriginal mancourt battles and compensation agement for the protection of cultural

The Howard Native Title legislation allows for the States to implement tected area in Cape York, jointly owned structive forces from all sides over the their own legislation in which the State and managed by traditional owners, governments have the option to give and which gives a high level of proteclegal recognition to Regional Agree- tion to the superlative natural and culments, such as the Cape York Heads tural values of Cape York. tained an ongoing and strategically of Agreement, through what is referred to as a Framework Agreement. will hear soon about how to join in an The Framework Agreement provides assist through a public campaign supthe parameters for stakeholders to porting a World Heritage nomination To their credit, the Peninsula negotiate land tenure outcomes in Cape York. Stay tuned. Branch of the Cattleman's Union has across the region, as well as on a Gavan has been the Coordinator of survived a vicious attack from the property-by-property basis between the Cairns and Far North Environ-National Farmers Federation, the traditional owners, pastoral lease- ment Centre (CAFNEC) for the last holders and in the case of the Cape, two and a half years, working prima-

implementation of the Cape York Heads of Agreement.

The conservation outcomes for the Cape as a result are significant. The Cape York Land Use Strategy, finalised in May 1997, endorsed the Cape Meanwhile the conservation move- York Heads of Agreement as a means ness Society, have been engaged in a execution of an assessment of the natu-

This is the first step towards achievin Cape York Peninsula, after the vol-With the election of the minority untary acquisition of pastoral properties whose natural and cultural values.

So here is hoping for a large pro-

Environment Groups and activists

rily on the Cape York, Daintree and The Beattie government will soon Great Barrier Reef campaigns, and is

I ovsustainable Australia

We, the minority of the world's population living in the affluent, industrialised countries (the North) have tended to consider that population growth in the less industrialised countries (the South) is the main problem facing the world in terms of environmental degradation and potential future resource scarcity. The response from countries in the south has been to challenge consumption patterns in the North. The 25 per cent of the world's population which lives in the 'north' consumes 75 per cent of the world's resources, suggesting that it is in fact we western-style consumers who are the biggest threat to the global environ-

Not much imagination is needed to image what will happen if the consumption levels of the southern countries equalled those of the rich industrialised countries. Even with zero population growth, the burden on natural resources would increase by a factor of three. The anticipated effects of this, such as an intensification of the greenhouse effect, a further loss of biodiversity, increased destruction of rainforest and increased pollution of oceans, would be dramatic. Our earth cannot support 10 billion wasteful western-style consumers, yet that is exactly where our present development course will take us.

We cannot enforce poverty on three quarters of the population for the sake of the planet, so how do we solve this dilemma in a way that avoids environmental problems and ensures a good quality of life for countries alike?

Friends of the Earth has developed a Sustainable Societies Program to address these issues at local, naBy John Hepburn

tional and international levels. For the past six years, Friends of the Earth in Europe has been running a Sustainable Europe Campaign. The broad aim of this campaign has been to develop a 'greenprint' for a sustainable society and to develop practical, achievable strategies for moving towards sustainability.

Environmental space

There are many definitions of what might constitute Ecologically Sustainable Development (ESD) and in many ways it is a beast that has never been seen'. As a result, a number of models have been proposed to more clearly understand our environmental impact and to provide some idea of what long-term 'sustainability' might look like. In Europe, Friends of the Earth has used the concept of 'fair shares in environmental space'

In practical terms, environmental space is the total amount of energy, non-renewable resources, agricultural land and forests that we can use without causing irreversible environmental damage or depriving future generations of the resources they will need. The amount of environmental space is therefore limited by the carrying capacity of the earth.

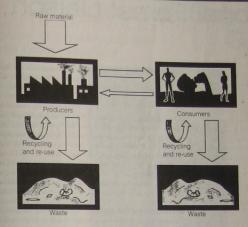
The amount of environmental space consumed by average consumers in each country can be measured in order to make comparisons with what is considered to be 'sustainable' and to make comparisons between different countries. Fair shares in environmental space are worked out by dividing the sustainable global

availability of energy and resources by the expected world population for a given year. In a fair and sustainable world, each country would consume more or less the same amount of resources relative to it's population size. Actually working towards achieving fair shares in environmental space means that Australia and other developed countries will have to make large cuts in resource use in order to make room for sustainable development in the southern countries. This does not mean compromising our quality of life. It does however mean using resources much more efficiently and de-linking our idea of 'quality of life' from 'quantity of consumption'

Resource efficiency

There are many possibilities for increasing the efficiency of resource use. In the past, the primary focus of industry cost reduction programs has been to increase labour efficiency. In a country faced with persistently high unemployment and increasingly unacceptable costs associated with resource extraction, it makes little sense to continue with this strategy. A shift in focus towards resource efficiency and away from labour efficiency would provide social, economic and environmental benefits. Focussing on resource efficiency means using best practice technology and engineering excellence.

In many instances, resource use can be reduced by a factor of four (and in many cases by a factor of 10) simply by using best practice technology and energy efficiency measures2. Resource efficiency should be integral at all stages of a product's life-cycle design, production, transportation and re-use/re-cycling.



Encouraging re-use of resources

Re-using resources effectively 'closes loops' so that the flow of resources becomes cyclical (re-cycling within the economy) rather than linear (producer - consumer - landfill). Tools such as Life Cycle Analysis and Extended Producer Responsibilty (EPR) can be used to ensure that producers take responsibility for their products throughout their entire life cycle-effectively encouruping them to consider re-usability in nity for arbitrage (taking materials established, it will be able to provide the product design stage.

Changing consumption patterns

Consumers and purchasers can choose to consider resource efficiency when making purchase decisions. This can in turn encourage producers to integrate resource efficiency measures into their product designs and production processes (it should be noted that the fact that prices generally do not reflect the true ecological costs stands as a significant barrier to consumer driven

Re-use opportunitiesreverse garbage

it a wealth of opportunities. In Europe, and the general public. large corporations are making large profits from re-use and recycling. There is no reason why community or- Australia Campaign. It is an exciting ganisations in Australia cannot ben- project in itself and has much potenefit from these same opportunities. There is an abundance of useful 'stuff' that gets disposed of to landfill in Australian cities, creating a real opportufrom people who place little or no significant funding for the Sustainvalue on them, and selling them to able Australia Campaign as well as people who place a higher value on them). This is essentially the principle that the Friends of the Earth Bris- tives. bane 'Reverse Garbage' project is based on (the name Reverse Garbage is taken from the Reverse Garbage Truck Co-operative in Sydney which has been operating a similar re-use project for more than 20 years). In December of this year we will be opening a warehouse to sell pre-consumer industrial discards to the public. Offcuts, over-runs, set up waste, re-

ject stock, packaging materials will be collected from a wide range of indus-The need to increase the efficiency of tries, to be sold to schools, kindergaruse and re-use of resources brings with tens, colleges, artists, home-builders

The FoE Reverse Garbage project fits into the context of the Sustainable tial as a springboard into other related projects in areas as diverse as industrial ecology and community arts. It is anticipated that, once providing a practical vehicle with which to test sustainability initia-

The Sustainable Australia Campaign is being developed as part of the FoE International Sustainable Societies Program. For more information about the campaign, please contact John Hepburn at FoE Brisbane, PO Box 5702, West End, QLD 4101, telephone (07) 3846 5793, email: foebrisbane@uq.net.au.

National Forest Liaison



Chloe Beevers & Cameron Price



FoE facilitates a national network of forest campaigning groups and individuals. We believe in the intrinsic value of all species and landscapes present on the Earth. We therefore wish to adopt systems of production that fulfil sustainable human needs with minimal impact on the natural environment. We are trying to protect high conservation value forests and promote the shift to an ecologically viable wood products industry.

forests in a way that ensures the continued healthy functioning of all of the processes of native forest ecosystems. It has been recognised that water, tourism, recreation, spiritual and ecological values of forests are being severely degraded by current logging practices. We are working towards the

transformation of the existing timber industry to one that is ethical, sustainable and intergenerationally responsible.

The transition to such an industry would necessitate the immediate withdrawal from ecologically significant forests and allow timber extraction only in areas modified extensively by recent human intervention, such as areas that have already been clearfelled. The timber removed should be processed to its highest possible value, creating products of the highest quality and longevity. Extensive forest rehabilitation program can provide employment, especially for rural youth. Displaced forest workers should be fully compensated and offered retraining in land rehabilitation or ecotourism.

We aim to achieve community empowerment by informing the general public about forest issues, giving individuals a vehicle to act on their concern for the forest, gaining the support of voters, consumers and shareholders, building alliances with Aboriginal communities, building strategic alliances with community groups, industries and other non-governmental organisations and encouraging the public to remove their support for destructive forest industries.

Contact your nearest Friends of the Earth and get involved in forest campaigning. Things you can do are many and varied: outreach and community education, nonviolent direct action, economic intervention/ boycott, networking, use of media, research and information provision, promotion of We aim to preserve all the values of native alternative industries, monitoring of forest practices, ecological surveys, use of the legal system, participation in government consultative processes and skill sharing and workshops.

> For more information contact Cameron or Chloe at the National Forest Liaison Office at forestnat@foe.org.au or (03) 9654 1700.



Indigenous Solidarity Group

Working together to achieve social and environmental justice in Australia

The Friends of the Earth Indigenous Soliderity Group is dedicated to proactively remoting relationships between environmental groups and the Indigenous people of Australia. To this end, FoE activists, along with local Aboriginal activists and community organisers, have facilitated two internaand conferences attended by grassroots Indigenous activists from across Australia and around world. The conferences have provided an opportunity for Indigenous coples to network and discuss the reality of the everyday issues that face them in their fight for land and the survival of their cultures.

The devastating environmental impact that is perpetuated by corporate and government interests on traditional Aboriginal lands has had, and continues to have, an equally devastating impact on Aboriginal lore, culture and spirituality. As the result of this indifference to their cultural values. many traditional grassroots Aboriginal people have become distrustful of the motives and the intentions of white Australians. Further to this, the ISG recognises that the environmental movement has often played a part in the dispossession by actively advocating the denial of Indigenous people their lands. The ISG seeks to play a part in healing these breeches by providing a forum for Indigenous people to express their concerns in a supportive environment.

The reality is that in many Aboriginal communities the fight to preserve the culture of Aboriginal Australians has transferred into a struggle for their very lives. In 1997 there were more than 34 suicides recorded among primarily young men in Western Australian communities alone. This is not including the well publicised 'Deaths in Custody'. Surely this is indicative of what is fast becoming a culture of despair, as Aboriginal youth struggles with the deeply ingrained racism and the lack of opportunity that they face as they grow up and attempt to live and raise families in remote areas of Australia. The

widespread abuse of alcohol, drugs, and sad instances of domestic and community violence are the direct result of the breakdown of Traditional Law and the imposition of European culture on Aboriginal people. The issue has transcended beyond just 'the treatment of Aboriginals'. The issue now is the death of a culture and the widespread death of Aboriginal people. This is a reality that the Australian public must face. When asked about the reasons and the solutions to this despair, Aboriginal elders have always indicated that the solution to the problem is the restoration of their traditional lands. Rather than taking this issue seriously, the current Australian Government has implemented 'the 10-point plan' legislation that effectively denies Aboriginal people rights which were granted by the High Court and subsequently legislated into law by the previous Labor Government.

Over the next year it is the intention of the ISG to become actively involved in exposing the ongoing damaging practices that are being employed by corporations in their dealings with Indigenous communities. The ISG will achieve this by networking with Indigenous communities around Australia and providing political and logistical support.

The ISG is composed of people from a variety of cultural backgrounds comprising Indigenous and non-Indigenous Australians whose ultimate goal is to see an end to the past and present genocidal practices that have plagued Australian history.

Gareth Devenish

The fight for Timbarra

Ross Mining's latest project will have catastrophic consequences for the tablelands

Willow Aliento FoE Armidale On the Timbarra Plateau, corporate profits and mineral commodities have again been given precedence over conservation values.

Ross Mining is currently constructing an open cut gold mine, with the heap leach processing facility in an area home to 29 endangered species of animal, and several rare or endemic flora. In the process they will destroy Aboriginal artifacts and sites, irreversibly alter the landform and damage, beyond restoration, old growth forest, rainforest, woodland and wetland areas.

In recent Comprehensive Regional Forest Assessments carried out by National Parks and Wildlife the Timbarra area, 25 kilometers east of Tenterfield, has been assessed as having the highest conservation values possible.

Yet, not only is this mine, Poverty Point, going ahead but the company and others have plans to explore, and then exploit, further areas on the plateau and in nearby Boonoo, Forestlands, Ewingar, North Washpool, Girard and Gilgurry State Forests.

It is all part of recent moves by the department of Mineral Resources and the Minerals Council to increase mining exploration and development in New South Wales. A draft report produced for the recent Regional Forest Agreement negotiations by Bureau of Resource Services stressed the importance of the oil and gas reserves of the coastal and forest areas for the economical processing of the minerals of the New England Fold Belt (which includes Timbarra).

In recent negotiations, DMR clearly stated its desire to see many high-conservation value areas, including Timbarra, Carrai Plateau, Wild Cattle Creek, Gibralter Range and Girard State Forests excluded from any form of reservation which would preclude access for mineral exploration and eventual mining development.

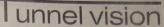
There comes a point where we have to accept that some things can never be dug up. DMR are not there yet. For Minerals Council, DMR, financial organisations and government, conservation always seems to be a bonus rather than an imperative.

At a time when world scientists are calling for the protection of habitat, at Timbarra the state's largest known population of the endangered Hastings River Mouse is forced to coexist with the Poverty Point Gold Mine.

At a time when fresh, clean water is at a premium, we are allowing a cyanide heap leach on a wetland at the headwaters of pristine creeks and a major river system.

It is only through the dedicated work of activists and community members, on the plateau and elsewhere which has even caused the development to be challenged in any way. It is only through continued action and awareness raising that we can ensure that the destruction does not spread to other leases. The government keeps promising environmental protection, it releases greatsounding policies and signs international treaties like the Ramsar convention in Kyoto, yet it is up to the people, always, to make the government keep its word and act.

For further information on the Timbarra campaign, or other mining developments in the region, contact FoE Tablelands network, FoE Armidale, ph/fax 02 6771 1155, PO Box 1155 Armidale. Timbarra Protection Coalition C/o Big Scrub Environment Centre 02 680 1393



The New South Wales government has northly announced the construction of an East West road tunnel under Sydney's CBD. The government claims the tunnel will reduce car travelling times between eastern and western and will eliminate gridlock in else CBD.

These claims are highly exaggerated. There say be some initial advantages for car divers, but traffic problems will increase in surrounding suburbs and the time saved by raveling through the tunnel will soon be last in the gridlock on the approaches to the tunnel is Victoria Road which often suffers gridlock as it passes through Rozelle and Drummoyne. The tunnel will increase traffic groblems in both suburbs.

Victoria Road in Rozelle and Drummoyne is vary dangerous with many road accidents. Many victims of accidents on Victoria Road are local pedestrians. The CBD car lobby is making conditions dangerous for people who simply want to walk around their home soborb.

Between 1971 and 1991 activity in the City of Sydney declined. The workforce declined from 230,000 to 190,000.

The first knee-jerk reaction to decreased ratal sales is to increase the number of car parking spaces. It is doubtful if increased parking will have a significant effect in increasing retail sales, and more cars may vera be counter-productive and reduce sales. About half a million people enter the CBD sach weekday but it seems many of these potential customers are not shopping in

It has been estimated that already 40 per cent of retail sales are made by CBD workers and there is big potential to increase sales to these workers. Workers mainly shop during the 12 pm to 2 pm lunch break and they would probably shop more if they did not have to do battle with crowded footpaths during lunchtime. Workers have one hour to ahopping and precious time is lost waiting at traffic lights. It would not be unusual for

workers to spend 10 to 15 minutes waiting at traffic lights during their lunch break.

Upgrading pedestrian facilities and reducing cars will greatly increase the retail turnover of the City of Sydney.

The construction of this tunnel is tempting but the advantages aren't there. The problems of the CBD will be shifted to the suburbs. There may be slight advantages in the CBD but it will be hell in Rozelle, Drummoyne and many other inner suburbs.

Friends of the Earth Sydney is promoting the introduction of a car-free CBD. We challenge the NSW government to produce a financial analysis of both their tunnel proposal and our car-free CBD proposal. Our initial studies show the car-free CBD has major financial advantages, especially to commercial interests in the CBD.

The NSW government has again supported car use in Sydney. Smog is increasing, traffic jams are getting worse, public transport is inadequate and the government's solution to these problems is another tunnel.

Ted Floyd



Community 1



How grassroots activism averted the implementation of the Multilateral Agreement on Investment

he failure of OECD's Multilateral Agreement on Investment is fantastic news for all people concerned with democracy, environmental and social sustainability. At their October meeting, representatives from OECD nations (the world's 29 richest countries) failed to set a date for future negotiations and signalled the likelihood that an international investment agreement would be taken up in the World Trade Organisation.

The implosion of the MAI negotiations has been encouraging for the international coalition of environment, labour, development and small business groups, which opposed the agreement. Designed by international business interests, including the powerful United States Business Council and representatives Australia. of OECD governments, the MAI would have greatly accelerated moves towards a single global economy where economics and the logic of the market prevail at the expense of community, environmental and cultural concerns.

Community groups and individuals across the world who opposed the agreement can take particular credit for its demise. Despite efforts by OECD, business and government leaders to keep details of the MAI secret, non-government organisations were able to open the agreement up to public scrutiny and develop a coordinated international campaign. All over the world anti-MAI campaigners tapped into the public disenchantment with the actions of governments which are pursuing economic rationalist, or neo-liberal, policies in conjunction with multinational corporations. The MAI tested the public's acceptance of economic growth and market 'efficiency' at the expense

opment, community and environment organisations were joined by small business, local government representatives and newly formed Stop the MAI groups. There were also numerous public interventions into the debate by retired high court judge Sir Anthony Mason and One Nation's Pauline Hanson. The government was obliged to alter its recently implemented treaty process and convene The Joint Standing Committee on Treaties before Australia had agreed to the treaty. Once convened, the committee was inundated with submissions and had received over 900 when it was postponed for the election. The committee's interim report admonished the government and treasury for failing to adequately investigate the implications of the treaty for

The international campaign against the MAI was able to pressure a number of governments into a rethink of the benefits of the agreement. France's withdrawal from negotiations before the October OECD meeting was a final signal that the agreement was unworkable and unpalatable. The United States and Canada were also exhibiting strong reservations. As MAI negotiations collapsed in the OECD, the Australian government finally deserted the agreement. The Assistant Treasurer, David Kemp, pointed to the need for increased transparency and the inclusion of environmental and labour standards in any future agreement. This comment is remarkable coming from a government who brought us the Waterfront dispute and is pushing through the Jabiluka uranium mine.

Most readers will be disappointed, but not surprised, to hear that there are already plans to push on with a similar agreement, incorpoof democratic procedures, environmental and rating aspects of the MAI, in the World Trade Organisation. While involving more countries After a relatively slow start, the Australian than the OECD, the WTO has a great many campaign against the MAI received wide- problems, not least being that it is dominated spread public support from diverse sectors of by trade interests which prioritises economic the community. Trade unions, overseas devel-

For instance, the WTO recently dismissed an appeal which sought to ban merica from restricting the importation of brimps captured by means which threaten

dangered sea turtles.

The importance of the Internet in defeating MAI has not gone unnoticed. Melbourne's the Age newspaper followed the lead of Caandien and English papers in pointing to the success of the first international protest movement conducted primarily via the Internet'. From the release of the draft MAI over the sternet by a Canadian NGO in January 1997 to coordinating international actions, campaigns and sharing information, the Internet has been significant in defeating the MAI. As oth other democratic struggles, the Internet also provided an important point for the pubhe to access information that would otherwise trickle through the mainstream media or be eft out altogether. With any luck the public's interest in accurate, highly-relevant information available over the Internet may provoke a broadening of the mainstream media's attention. The tactical response by the international business community to use the internet as an organising tool will be important to observe over the coming years. As the MAI campaign has confirmed, while it remains easonably democratic and accessible, it can provide an important tool for campaigners.

There is much to be learned form the sucess of the MAI campaign, particularly through using the Internet and developing our international networks and campaigning. In Australia there is an urgent need to develop a coalition from a variety of sectors to tackle the adverse effects of globalisation, including trade and investment liberalisation. There is also a significant need to map the detrimenal impacts of globalisation and the free trade agenda and raise public awareness about these issues. The campaign against the MAI has provided a focal point for campaigning on e somewhat abstract issues, illustrating the potential to effect the global agenda when action is taken both locally and internation-

How to form a Friends of the **Earth Group**

A five-step guide on how to become active in one of the largest environment networks in the world

The FoE Australia network welcomes enquiries from groups which share a similar philosophy to the network and who wish to become active under the name 'Friends of the Earth'. Here are five basic steps for achieving this:

- Have a committed group of people willing to be active in your region on a grassroots level.
- 2 Contact the National Liaison Office of Friends of the Earth.
- 3 Draw up a constitution to circulate to current FoE groups for approval (the NLO will help).
- Provide a profile or outline of proposed activities of your group.
- 5 A ballot will be put to current FoE groups and when the ballot procedures have been followed your group will be notified of the outcome.

How does your garden grow?

Adam Chapman's projects teach householders the advantages and techniques of low-waste gardening

Imagine feasting on fruit from an 'edible fence' that drips with guavas and citrus fruit, or sipping a tea infusion made from home-grown native tea-tree leaves. You can virtually sit back and watch nature work its magic - there is no need to mow the lawn or water the flowers.

Gardeners in New South Wales are discovering the rewards of developing gardens based on Adam Chapman's principle of WATER (Waste Avoidance Through Ecological Redesign). The low-waste gardens, which reduce pollution and green waste landfill, have the added advantage of being lowmaintenance and economical.

The production of a series of pamphlets, introducing the WATER philosophy to the community, has generated strong interest, with Chapman welcoming the unprecedented demand for his skills in educating and advising householders of the advantages of low-waste gardening.

Chapman has a solid background in organic horticulture and was in his final year of a Bachelor of Social Ecology at the University of Western Sydney when he joined FoE's waste minimisation campaigner John Denlay in putting together the pamphlets.

Combining knowledge of urban ecological design with WATER principles, he has also been able to incorporate his interest in bush foods and medicine to add another practical dimension to his low-waste garden system.

Chapman and Denley were able to produce their pamphlets after they received a grant from the NSW's Waste Planning and Management Fund as part of an Environmental Protection Authority (EPA) initiative to reduce



waste in NSW by 60 per cent by 2000. Per capita figures for NSW indicate that green waste (garden, food and wood waste) makes up 45 per cent of domestic waste in the state. In producing the pamphlets, Denlay and Chapman identified lawns and exotic plants as the major factors which contribute to domestic green waste. They sought to address these areas by presenting alternatives to traditional garden design.

Through the pamphlets gardeners native to each area. are shown how to reduce green waste and minimise water consumption by covers, recycling lawn clippings, suband by mulching and composting.

designed tables which provided a guide demonstration site in the area. to which low-maintenance ground cov-

cific areas. Recommended species are native to the local area or region, produce minimal green waste, are as close to drought tolerant as possible and have edible and medicinal uses.

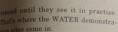
'I'm coming from the perspective that waste minimisation shouldn't be about collecting and processing,' Chapman said. 'It's more about people taking responsibility for themselves, recycling on-site.'

He is disappointed that the NSW Government has so far failed to aggressively pursue the EPA's 60 per cent waste reduction objective, and points to its failure to heed the State Waste Advisory Council's recommendation to stop green waste going to landfill. While the Government claims that there is not yet the industry base required for such a change, Chapman feels that the potential for avoidance and redesign has been overlooked.

Encouraged by the success of the initial printing, Chapman and Denlay approached Sydney's local councils and relevant industry groups asking them to fund area-specific reprints of the pamphlets. Bankstown Council and dening methods and emphasising the the Inner Sydney Waste Board acbenefits of the low-waste style of gar- cepted the offer and Chapman amended the tables to contain species

During this time he also discovered that his ideas were gaining currency replacing lawns with low waste ground more quickly than he had realised. One regional waste board had borrowed stituting high-maintenance, water- heavily from the pamphlets and had consuming plants with drought toler. only given a token acknowledgment to ant low-maintenance native species FoE. But after the indiscretion was gently pointed, out an apology was im-After undertaking extensive research mediately forthcoming and Chapman into native species, Chapman has also was even asked to create a low-waste

While WATER is fueled by theory, ers, trees and shrubs are best for spe- people will probably remain uncon-



Using the entire back and front garlens of residential houses, the sites show the practical implementation of WATER The first, in Maroubra, feaa system to recycle laundry water by directing it through a sand filter to a 'rainforest' area in the backyard. Native bushfood rainforest species such as Davidson's Plum (Davidsonia guriens) and Rosella (Hibiscus eterophyllus) grow near a pond conraining edible wetland plants including Taro (Colocasia esculenta) and later Chestnut (Eleocharis dulcis).

Among the features of a Central Coast demonstration site are an edible ground cover of New Zealand Spinach coastal shrubs Grey Salt-Bush (Atroplex cinerea), Mountain Bush Tomato (Solanum linearifloium) and establish backyard self-sufficiency and Native Wombat Berry (Eustrephus sustainability for different members of as well as public utilities, has the poletifolus) plus Native Pepper Vine the community, (Piper novae-hollandiae), an edible fruit climber. A salt-tolerant wind- the Central Coast demonstration site tion of low-waste gardens. While most break has been established which in- for inclusion in a segment on lifestyle of the projects he's worked on to date corporates coastal grevilleas, olives program Sydney Weekender and sev- have been voluntary, Chapman has one of the few exotic species that re- eral recent articles have been pub- established a business, Urban Ecolosearch has shown to be suitable for this lished about low-waste gardening and gist, to provide consultation and advice edible fence' containing native fruits, these issues is growing quickly. has also become a dominant feature of

cally, is rumoured to be officially open- conference of Students Campaigning ng this site in the near future. He has Against Multinationals (SCAM). been spotted investigating the site, two-day workshops, and is in the proc-Presentation through councils and requests for information. A columnist Vaste-minimisation program co- articles published in Wellbeing magaincorporate the principles of the the semi-finals of the 1998 Young Aus-



'Earthworks' program, and encourage tralian of the Year Award in the envipeople to go out and set up similar sys-ronmental division. tems for themselves.

change Trading System (LETS) we can designing urban ecology

pe of garden) and calystamens. An WATER, It is clear that interest in on creating ecological design sites.

Students and Sustainability conference to reduce unnecessary waste and pol-The NSW Government has expressed in Tasmania this year and presented a lution, particularly in urban areas. interest in the garden design projects workshop entitled Practical Methods and Premier Bob Carr, who lives lo- for Redesigning Urban Ecology to the the local councils and waste boards and

Possibly attracted by the edible fence. gardening and environmental seg-Chapman has used the sites to host ments on NSW radio stations 2BL and Illawarra ABC, the Friends of the ess of developing a workshop series for Earth (Sydney) office was deluged with 02 9586 1437 or 02 9387 7105. carning institutions. The workshops for new organic gardening magazine waste gardens is available on the are incorporated into 'Earthworks', a Gardening Australia, he has also had eveloped by Denlay. The workshops zine. Chapman progressed through to

Having recently received funding to We're trying to establish community- undertake train-the-trainer courses for based action, 'Chapman said, referring workshops, Adam also has made a subto the costs and time involved for an mission to the South Sydney Waste individual or family to establish a low- Board for finance to enable him to write waste garden. 'Using the Local Ex- and publish a book on the topic of re-

Chapman believes the private sector, tential to benefit both economically and Channel 7 recently shot footage at environmentally from the implementa-

Adam is heartened by the success of Chapman was invited to speak at the low-waste gardening and the potential

'I've had a hell of a lot of support from there is such strong community support,' he said. It's a new direction for waste Following his guest appearances on minimisation. It just shows that we can change the way we do things and the way that we impact on the environment.'

Adam Chapman can be contacted on

More detailed information on low-Internet at:

http://homepages.tig.com.au/ ~foesyd/SustainableConsumption/garden/gardenhome.html

Reviews

The Environmental

Consequences of

The Environmental Consequences of

Growth considers the idea of steady-

state economics as an alternative to a

high-growth, environmentally destruc-

tive capitalist economy. Booth proposes

theories on economic growth and envi-

ronmental change, specifically looking

at natural habitat loss, air, water and

pollution. He delves into governmental

environmental regulations and their re-

lationship to these global problems. His

analyses includes a new ethical ap-

proach to evaluating environmental

The Environmental Consequences of

Growth is essentially a text for those

studying environmental economics. It

read for those interested in environmen-

Author: Douglas E Booth

Publisher: Routledge

Growth

Written and compiled by Beth Mellick

All books are available from the FoE Fitzrov Bookshop, 312 Smith Street, Collingwood, 3065. Telephone: 03 9419 8700 Fax: 03 9416 2081



Saving

the Environment

Author: Ted Trainer Publisher: UNSW Press

mental and political author to many tively campaigning for ecologically susreaders. Some people argue his latest tainable societies, it is important to work is much more accessible than his emphasise the need to reduce consump-

but informative read.

RRP \$9.95



Ted Trainer may be a familiar environ- time when Friends of the Earth is ac-

previous publications.

Frontlines which feature issues such Cleaner provides a practical means of as native title, digital broadcasting and the impact of gambling on Australian society. Saving the Environment but you can also mail order from the critiques the government's environ- Friends of the Earth bookshop. RRP mental policies and ideology. Trainer \$7.95 argues that the emphasis on recycling programs are barely penetrate the surface of the real ecological problems in Australia such as poverty, development, globalisation, greenhouse, ozone depletion, forest destruction, loss of biodiversity and species. This is a short

The Green Cleaner

Author: Barbara Lord Publisher: Wilkinson Books

The Green Cleaner is back in print. After being revised and expanded it is still retailing at \$7.95. At this price, The Green Cleaner is possibly the best book of its type on the market today. It offers simple and effective methods of cleaning around the home without the use of chemicals. The Green Cleaner re-establishes the practical cleaning qualities of vinegar, bi-carb, borax, lemon juice, methylated spirits, salt and water. At a tion and to change actions that lead to Trainer's book is one of a series called waste and pollutions. The Green achieving this.

Available in most major bookshops

Sustainable House

Author: Michael Mobbs Publisher: Choice Books

Sustainable House is an inspiring and informative story on self-sustainability and sufficiency. Mobbs turned his innercity Sydney house into a self-sufficient dwelling. His family of four is self-sufficient in water, waste disposal and electricity generation whilst responsibly using recycled timbers, avoiding PVC and toxic chemicals. Sustainable House is user-friendly with numerous illustration and coloured photographs portraying every part of the house. It also discusses similar examples of self-sufficient and energy-efficient houses from other parts of Australia, the United States, Canada and the United Kingdom. Sustainable House is a must for anyone interested in alternative technology.

RRP \$36.00

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Send us letters, criticism and any other items of interest. Please include photographs relevant to campaigns and issues.

Ideally photographs should be high quality, accurately labelled 35 mm and 120 mm transparencies and prints. Black and white or colour. All photographs will be credited. All originals will be returned on request.

All contributions are greatly appreciated by the Chain Reaction editorial team.

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If the earth were only a few
feet in diameter, floating a few feet
above a field somewhere, people would come
from everywhere to marvel at it. People would walk
around it, marvelling at is big pools of water, its little pools
of water and the water flowing between the pools. People
would marvel at the bumps on it, and the holes in it, and they
would marvel at the very thin layer of gas surrounding it and the
water suspended in the gas. The people would marvel at all the
creatures walking around the surface of the bass and at the creatures
in the water. The people would declare it as sacred because it was the
only one, and they would protect it so that it would not be hurt. The ball
would be the greatest wonder known, and people would come to pray
to it, to be healed, to gain knowledge, to know beauty and to wonder
how it could be. People would love it, and defend it with their lives
because they would somehow know that their lives, their own
roundness, could be nothing without it. If the earth were only
a few feet in diameter.

Text on a banner at the Jabiluka blockade

Author unknown